CAPITAL ASYMMETRY
A LENS FOR STRATEGIC ANALYSIS

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Abstract

Capital asymmetry exists when an organization has an integrated set of resources that facilitates a competitive advantage. For example, Apple's tight integration of software and hardware (organizational capital) and reputable brand (symbolic capital) enables it to earn profit margins of around 30%. Asymmetries are created by developing exceptional capital. A capital-based advantage might be emulated, but the successful first mover usually gains a market share increase that is difficult for the imitators to erode. The article identifies the types of capital asymmetries an organization can strive to develop. The disruptive effects of developing a capital asymmetry are apparent when we dissect critical transitions in automotive market share and profits, as we expose by examining Ford, GM, Toyota, BMW, Tesla, and BYD. The automotive industry oscillates between relatively long periods of incremental modification and abrupt radical change when a new asymmetry emerges. The resulting redistribution of market share and profits persists until the arrival of the next capital asymmetry. As the automotive industry transitions from internal combustion engines to electric motors, the incumbents and new entrants seeking a successful business model can learn from more than a century of capital asymmetry-based competition. The article introduces a capital asymmetry analysis grid to assist an enterprise's search for a competitive capital asymmetry and the planning and implementation of capital asymmetry.

Keywords

capital asymmetry, competitive advantage, automotive industry, innovation sweet spot

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WINNING BATTLES THROUGH ASYMMETRY

No general wants to fight an enemy on a level field because the outcome will likely be an indeterminant stalemate (e.g., the four years of trench warfare in World War I). Asymmetric strategies aim to circumvent a foe's strengths while exploiting its weaknesses by applying unexpected tactics (Buffaloe, 2006). Military leaders strive to create an asymmetry that favors victory through innovation or strategy. For example, the Greek phalanx was effective against mounted enemies because of its tightly packed formation and shields (Echeverría, 2012). Though outnumbered at the Battle of Trafalgar in 1805, the British fleet, led by Admiral Lord Nelson, gained a strategic advantage by lining up at 90 degrees to split the joint French and Spanish fleet into three (Figure 1). The British sunk two-thirds of the French vessels without losing any ships (Bennett, 2004; Echeverría, 2012) .

In military terms, asymmetry refers to the absence of a common basis to compare the quality of resources or operational capability (Buffaloe, 2006). In essence, asymmetry involves preparing, organizing, and acting to maximize advantage. Executing a successful asymmetric strategy for a particular battle or ongoing warfare depends on available resources and deployment advantages. In business, attention has been given to asymmetry in the form of, for example, information (Akerlof, 1970) and power (Talay et al., 2022), but there is no comprehensive strategic framework to guide the generals of business.

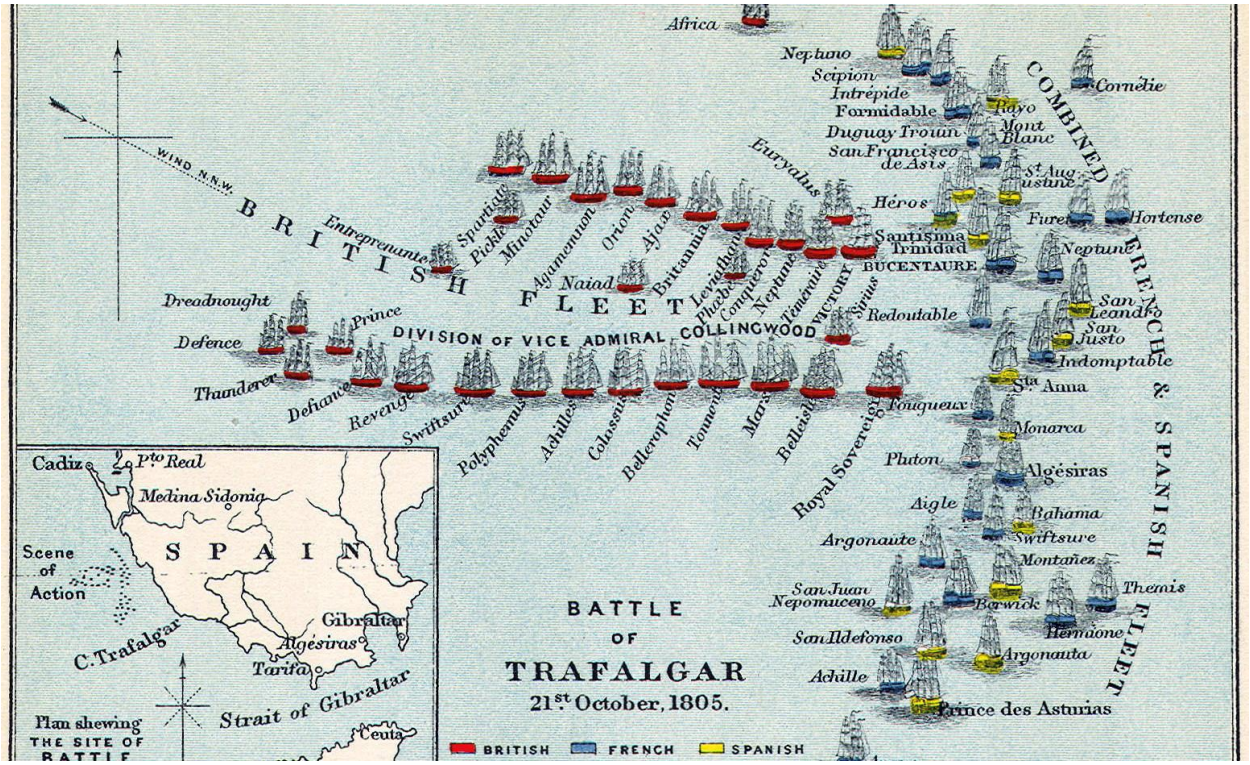

Figure 1. A depiction of the initial positions of the opposing fleets at the Battle of Trafalgar (Oladelmar, "División de las Tropas," CC BY-SA 4.0 via Wikimedia Commons, https://commons.wikimedia.org/wiki/File:División_de_las_tropas.jpg)

COMPETING THROUGH ASYMMETRY

Organizations should avoid level playing fields. Otherwise, they will likely find themselves in the trenches of a price war in their industry. Organizations can avoid the symmetry trap of low profits and reduced capital productivity by developing asymmetry-generating innovations to garner a competitive edge. Innovation capabilities seem to be asymmetric (Dosi et al., 2010), with only a few firms able to reap the benefits of an asymmetric edge. If stuck in a symmetry whirlpool, an organization must move to a niche to establish an enduring advantage to escape the current.

Asymmetries often arise or are created by exploiting a capital or resource advantage. For instance, a mining company might own a mineral-rich lode with ore that can be extracted at

a lower price per ton than any alternative. This natural capital asymmetry enables it to make excessive profits and pour these into maintaining its exclusive position. For many decades, De Beers enjoyed a natural capital monopoly in the diamond industry that enabled it to control the global supply of diamonds. It complemented this imbalance by generating a symbolic capital asymmetry around diamonds to position them as the foremost gemstone. Before De Beers came along, only 10% of engagement rings featured diamonds. With the help of Madison Avenue, it set out to "create a situation where almost every person pledging marriage feels compelled to acquire a diamond engagement ring" (Sullivan, 2013). In the 1980s, De Beers was described as "a monopoly no justice department has been able to touch, a money machine without peer in the capitalist world" (Thompson, 1983, p. 24). By the 1990s, its diamond market share was a staggering 80% (Milgrom & Roberts, 1992).

Asymmetries can be created for all types of capital. Under Carnegie's direction, US Steel used mergers to accumulate massive economic capital at scale to monopolize the steel industry (Reback, 2007). Patents, copyrights, and trademarks are means of establishing organizational capital asymmetries. For example, Disney lobbied to extend the copyrights of its characters, such as Mickey Mouse, to preserve its sole use of various representations (Christiansen, 2004).

While there are multiple typologies of capital (Desouza et al., 2024), we use a framework that identifies six foundational types of capital (Watson, 2020). This framework is derived from multiple studies of capital (e.g., Becker, 1964; Bourdieu, 2018; Dean & Kretschmer, 2007; Gleeson-White, 2014) and the evolution of human behavior (Lawrence & Nohria, 2002; Stringer, 2012). These capitals are the 'atoms' or building blocks for other forms of capital.

For example, knowledge capital is a symbiotic combination of human and organizational capital. Cultural capital is a compound of social, symbolic, organizational, and economic capital.

Building on this six-capital framework (Watson, 2020), we can identify specific ways organizations can develop unique advantages. We expand on this prior work by tabulating the different forms of asymmetry an organization can strive to create to reduce the influence of competitors (Table 1). We use the automotive industry's evolution, from Ford to Build Your Dreams (BYD), to demonstrate the power of capital asymmetry to disrupt market share and force competitors to make significant strategic adjustments.

Table 1. Types of capital and forms of asymmetry

Capital	Description	Asymmetry foundations
Economic	Financial, physical, manufactured resources, and revenue streams	Control of a set of assets that provide exceptional economic scale or scope.
Human	Skills, knowledge, and abilities of a workforce.	A highly talented, skilled, and motivated workforce.
Natural	Rights to use or extract natural resources, such as farming and mining.	Very fertile land in a suitable climate. An accessible, high-yielding mineral deposit.
Organizational	Institutionalized knowledge and codified experience (software and databases), routines, patents, manuals, and structures.	Valuable patents, copyrights, or trademarks that are difficult to imitate. Exclusive data sets or proprietary algorithms.
Social	The ability of an organization to benefit from its social connections.	Influential connections that enable exclusive access to vital capital. Exceptionally loyal customers.
Symbolic	Organizational reputation, image, brands, and ranking within its industry.	A highly preferred brand. A reputation for quality, honesty, and customer service.

Ford

Henry Ford famously said at a sales meeting in 1909, “Any customer can have a car painted any color that he wants so long as it is black” (Ford & Crowther, 1922). Following the introduction of the Model T and an increase in production in 1908, Ford enjoyed a decade of market supremacy and massive profitability (Wilson & McKinlay, 2010). His success was based on continually reducing the price of a mass-produced unchanging single model (Tedlow, 1988). However, Ford’s pioneering production systems were quickly copied (Nevins & Hill, 1954). In 1920, he dismantled Ford’s administrative systems (organizational capital) (Kuhn, 1986), and the company lacked sufficient infrastructure for testing its cars and engines (Nevins & Hill, 1954). In 1923, Ford replaced the Model T with the Model A (Katz, 1970) but never recaptured its market leadership. That same year, its market share peaked at around 60% while General Motors (GM) held about 12% (Tedlow, 1988), and by 1927, the company had lost its market pre-eminence to GM.

Ford focused on economies of scale to drive down costs. The construction of the massive River Rouge complex, started in 1917 and completed 11 years later, typifies Ford’s emphasis on creating an *economic capital asymmetry*: he wanted to build the world’s largest integrated factory (Ford & Crowther, 1922). His recipe worked exceptionally well until Sloan found another essential ingredient and created an asymmetry based on organizational capital.

Sloan and GM

In 1918, Alfred P. Sloan became a director of GM and an influential member of its executive committee. In 1921, he recommended that GM "should produce a line of cars in each price area, from the lowest price up to one for a strictly high-grade quantity-production car (Freedman, 2013, p. 76)." This differentiating strategy required multiple innovations, which set GM apart from all other manufacturers. Ford, for instance, steadfastly refused to imitate GM's diversified product offering (O'Brien, 1989).

Sloan recognized that growth is hindered by the limited capacity of management to handle increasing complexity (Dale, 1956). Executives, like all humans, have bounded rationality (Simon, 1982). Consequently, as a firm grows, coordination, control, and communication issues stretch managers beyond their capabilities and domain knowledge. Thus, Sloan instituted a multi-divisional corporation, a structural innovation for managing the increasing complexity of massive firms (Chandler, 1962). He increased formalization, such as written policy justifications, and involved divisional managers in decision-making (Freeland & Granovetter, 2001). The General Motors Research Corporation, far superior to anything at Ford, had a staff of 400 by 1930. It supported innovation and the development and testing of new vehicles, which in turn enabled the production of superior products, a key contributor to GM's success over Ford O'Brien, 1989).

Sloan created *organizational capital asymmetry* through three key advances: a multi-divisional corporation, a large-scale R&D capability, and participatory management. He demonstrated how superior organizational capital can generate revenue growth, innovation,

and operational excellence (Miles & Van Clieaf, 2017). Ford's one-person control was no match for Sloan's collective shared rationality. As Sloan observed, a key outcome was: "We had simply learned how to react quickly. This was perhaps the greatest payoff of our system of financial and operating controls" (Sloan, 1964). Sloan created a flexible organization that could annually produce a newly styled "car for every purse and purpose" (Sloan, 1964). GM's market dominance was eroded by Toyota's human capital asymmetry.

Toyada and Toyota

In 1937, Kiichiro Toyoda faced three significant problems in establishing Toyota: (1) a lack of advanced technical capabilities, (2) a shortage of funding sources, and (3) a labor force antagonistic to a market economy. He found the labor problems overwhelming and handed control to his cousin, Eiji Toyoda. After a visit to Ford's River Rouge plant in 1950, Toyoda made a critical and exceptional decision for his time: He offered his workers lifetime employment in exchange for complete commitment and absolute loyalty to Toyota. He wanted to thwart the call for communism, which was then strong in East Asia, and he foresaw the benefits of management and labor cooperating closely in a creative environment (Fane et al., 2003).

Toyoda had observed excessive waste and inflexible manufacturing processes at Ford's River Rouge plant and wanted to develop a more efficient and adaptable system. The resulting Toyota Production System (TPS) emphasizes lean management and flexible manufacturing. In parallel, Toyoda invested in creating human capital that would make TPS highly productive. Toyota promoted quality and productivity, and employees worked in

cross-trained teams. Lifetime employment meant education was a long-term investment, a way to ensure the continual development of human capital as an essential enterprise advantate. Toyota developed a *human capital asymmetry* that inflicted lasting wounds on Detroit. Even though Japanese and US manufacturing practices converged (Baldwin, 2024, Ch 6). The combined market share of Ford & GM declined from 70% in 1970 to 30% in 2020 (Economist, 2021). Eiji Toyoda's emphasis on human capital reflects the philosophy of his uncle, Sakichi Toyoda, the founder of Toyota, who averred, "Workers are (the) treasure of the factory. They are important to me" (Hamamatsu, 2012). Toyota is a mass producer, but humans' desire for social standing (Lawrence & Nohria, 2002) means some are willing to pay a premium for status-signaling products, as BMW recognized.

Bangle and BMW

BMW was established in 1918 to supply engines for military aircraft. Its technical expertise was the foundation of its engineering reputation (symbolic capital) (Alenuskin & Schotter, 2012). After World War II, BMW became renowned for finely engineered cars and motorcycles. However, in the US market, the appeal of first-class engineering diminished with the entry of Japanese luxury lines (i.e., Acura, Infiniti, and Lexus). BMW's sales in the US fell by 45% from 1986 to 1991 (Dolan, 1995). BMW needed to re-engineer its symbolic capital to stay in business.

Chris Bangle became BMW's design director in 1992 with the mission to revive the faded brand, which he did by implementing a cycle of revolution and evolution in car design (Joziasse, 2011). Bangle had a different perspective on the purpose of a car: "We make 'cars'

moving works of art that express the driver's love of quality" (Bangle, 2001, p. 6). He realized that luxury products require a combination of innovative design and product quality. His perspective reflects haute couture and the creation of symbolic capital through attention-grabbing clothes that anticipate the future. While initially controversial, the BMW 7-series, the first car of the revolution cycle, was ultimately successful (Bangle, 2001).

Consequently, by creating a *symbolic capital asymmetry* for BMW cars, Bangle observed, "many people are eager to pay a small fortune to experience a car as we define it" (Bangle, 2001, p. 7). As a result, premium models account for "12% of the volume and 50% of the profits" of the entire car industry (Economist, 2014). The segment leaders battle for symbolic capital asymmetry, which gave market returns in double digits from 2016 to 2021, while the mass market experienced low single digits (Guan et al., 2022). Bangle's design philosophy and the resulting uplift in symbolic capital was a vital factor in BMW surpassing Mercedes as the global leader in luxury car sales in 2004, and it held this lead until 2016 (Netivist, 2016).

The previous cases demonstrate how organizations can create asymmetries by focusing on a single type of capital (Ford/economic, GM/organizational, Toyota/human, and BMW/symbolic). Organizations can also exploit synergistic combinations of capital to create an asymmetry, as we now show with Tesla and BYD.

Musk and Tesla

Tesla was established in 2003 as an electric vehicle (EV) manufacturer, and Elon Musk, its major investor, became CEO in 2008. Its business model sharply departs from the

automotive industry norm. Indeed, we liken it to creating a new mountain (Figure 2), which has since become the climbing challenge for the entire industry. For over a century, the car industry has been competing to summit an old mountain based on the internal combustion engine of around 2,000 components, expensive recalls to fix problems, and an extensive dealership network. As the first to start climbing a new mountain, Tesla generated a *symbolic capital asymmetry* that nullified the need for advertising until 2020 (McGee & Bradshaw, 2020). However, Musk's strong association with the Trump administration has recently vaporized Telsa's symbolic capital (Bushey & Smith, 2025).

Building a traditional car is time-consuming because many components must be made, assembled, and installed. Building an EV is simpler and offers opportunities to rethink the conventional assembly line to reduce time and costs. For example, the self-driving chassis is an innovation that has reduced assembly time from 18-35 to 10 hours (Wenning et al., 2020).

For Tesla, software is integral to a vehicle's operation. This means that some traditional recall issues, such as a shortfall in the braking system (Oremus, 2018), can be patched promptly over the air. Owners do not need to make an inconvenient visit to the dealer, and the cost of the fix is minimal. By releasing a connected car, Tesla also learns from the millions of miles its customers drive, and it can apply that knowledge to update software to continuously enhance an owner's driving experience. At the same time, Tesla can generate revenue by selling software to add extra features to a vehicle. Ultimately, Tesla uses information systems to create an *organizational capital asymmetry*. Millions of lines of code and gigabytes of data created Tesla's initial advantage over traditional auto manufacturers.

There were 18,000 new car dealers in the United States in 2022 (Carlier, 2022). In November 2019, 3.2 million new cars sat on dealers' lots, totaling about USD 160 trillion in value. Additionally, dealerships occupy nearly 400 million square feet (37 million square meters) of retail space, and most dealers have acres of land for displaying cars (Wolf, 2021). A massive amount of capital is tied up in the traditional car dealership model, and consumers pay for this excess. Meanwhile, Tesla relies on a showroom to reach potential buyers where, typically, one of each of it models is displayed. Customers can order online. Accordingly, Tesla's inventory, selling, and distribution costs are lower than those of a traditional dealership, initially giving it an *economic capital asymmetry*. The showroom model has been imitated, and Chinese auto companies have been quick to tackle the ascent of the new mountain.

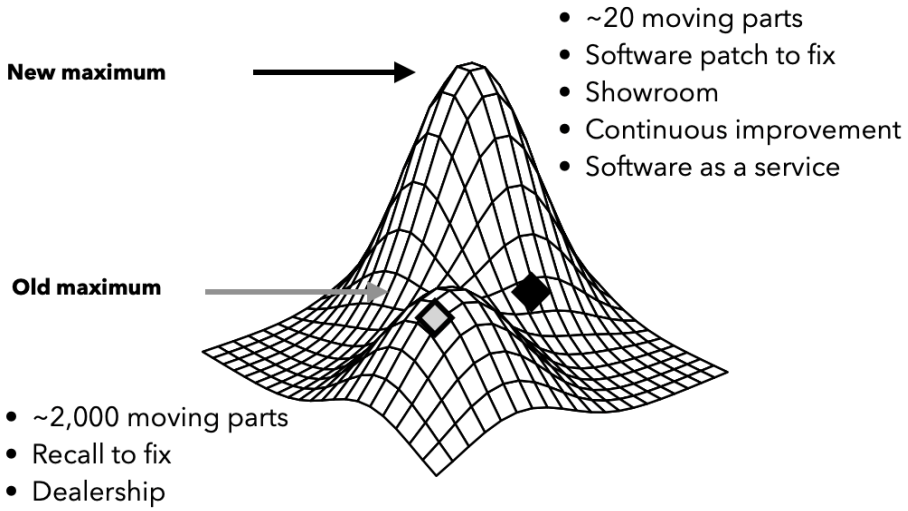

Figure 2. How Tesla moved mountains in the automotive industry.

Wang and BYD

Wang Chuanfu established BYD in 2002 when he took over a failing state car manufacturer. With a background in non-ferrous metals research, he understands battery technology. In

2023, BYD surpassed Tesla as the world's largest EV seller, with gross margins exceeding Tesla's (Economist, 2023).

BYD is a vertically integrated manufacturer of EVs. It controls a supply chain from minerals to vehicles—and even manufactures its chips and batteries. BYD is today's version of Henry Ford's supply chain, from rubber trees to autos. Also, like Henry Ford, the company is personified by its leader, as Wang has stated, "Our company has only one voice and it cannot have another" (White & Campbell, 2023). While China's labor costs are low, BYD factories are highly automated (White & Campbell, 2023). The mix of automated manufacturing and low labor costs provides BYD with an *economic capital asymmetry* vis-à-vis US and European competitors. This imbalance is further skewed by BYD's integrated supply chain, which further disadvantages competitors.

Rapidly climbing the new EV mountain will depend on engineering and technological innovation. BYD's 120,000 R&D engineers collectively patent 32 innovations daily (Aldridge, 2025). A large cadre of engineering and software talent creates a competitive advantage for BYD. Furthermore, an automotive engineer in China earns an average salary of USD 44,000, significantly lower than a US or German salary of USD 104,000 or USD 88,000, respectively (Salary Expert, 2023). BYD's *human capital asymmetry* is not based on factory floor performance, like Toyota, but on R&D capabilities. As Wang observed in 2009, his US and European competitors cannot afford to hire as many engineers: "The cost is too high." (Rational Walk, 2009). To leverage its human capital advantage, BYD must support them with organizational capital. Engineers need automotive performance data, digital design tools, digital wind tunnels, and collaborative processes for effective teamwork. We label this

symbiotic relationship between engineers and the resources they need *knowledge capital* because skilled knowledge workers increasingly rely on organizational capital, often in the form of information and communications technology, to design and operate complex systems.

Thus, while Ford, GM, Toyota, and BMW created asymmetries by exploiting a different type of capital vis-à-vis their competitors (economic, organizational, human, and symbolic, respectively), Tesla and BYD are creating asymmetries based on combining multiple forms of capital.

The preceding analysis illustrates the destructive power of establishing a capital asymmetry. Observers often focus on technological innovation as a destabilizing market force. Yet, the history of car manufacturing indicates that a business model innovation that creates a capital asymmetry can have a more significant impact. As Wang observes, “If a vehicle model breaks down, it may only cost several hundred million yuan, but if the strategic direction goes wrong, it may take three to five years, and time cannot be bought with money” (Flannery, 2022).

In summary, the automotive industry has oscillated between relatively long periods of incremental improvement of the prevailing capital creation model and abrupt change when a new asymmetry emerges, such as when GM disrupted Ford’s market leadership. A sharp transformation perturbs periods of relative equilibrium. The resulting redistribution of market share persists until another disruptive capital asymmetry occurs, such as Toyota’s

manufacturing system. Punctuated equilibrium theory provides a framework for explaining this phenomenon.

PUNCTUATED CAPITAL ASYMMETRY

Punctuated equilibrium (Gould & Eldredge, 1977) is biological theory applied to organizational change (Romanelli & Tushman, 1994). It is a mental camera for seeing (Gould, 1982) gradual versus abrupt change, such as the stages of organizational growth (Greiner, 1972). A capital asymmetry innovation can evoke a state change that redistributes market share and forces competitors to adopt the emergent capital creation recipe or rapidly decline.

Capital asymmetry emerges from innovation, consumer wants, and their interaction (Figure 3). Innovations can drive consumers' wants when they express new desired product or service features. Toyota's human capital asymmetry was an innovative response to post-war labor issues. Its effect was to lower prices, raise car quality, and attract consumers from Ford and GM. It was innovation-led capital asymmetry.

In contrast, GM's organizational capital asymmetry was driven by car buyers' desire for choice. Ford's blatant rejection of any choice ignored consumer wants. GM seized the opportunity to create an innovative corporate structure and novel management practices that met consumers' wants. Some companies monitor consumer wants and innovate to meet changes. Alternatively, firms can innovate to shape consumer wants (e.g., BMW) and create a symbolic capital asymmetry.

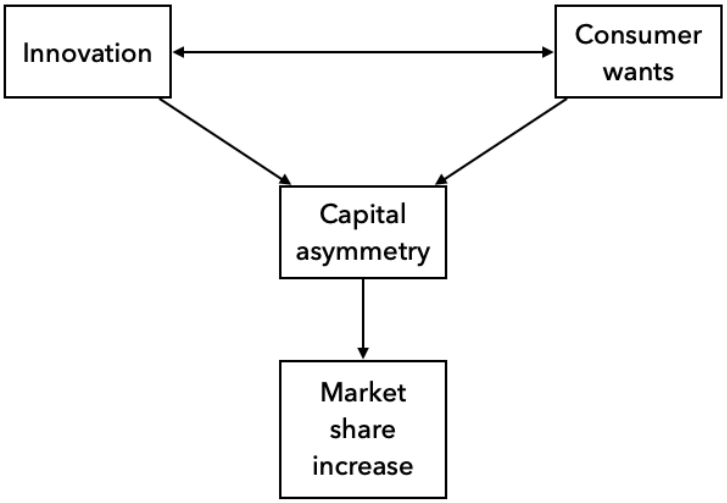

Figure 3: The causes of a punctuated equilibrium disruption

We summarize the preceding analysis:

- Organizations that create a capital asymmetry can have a significant increase in market share
- A market share increase persists until a competitor succeeds with a new form of capital asymmetry
- To remain in business, competitors must imitate capital asymmetry transitions

ENTERPRISE STRATEGY

We propose a four-phase approach to incorporating capital asymmetry thinking into an enterprise's strategy: (1) visualize the current model business model in capital creation terms, (2) evaluate competitors' relative capital asymmetry, (3) specify the capital conversions and combinations necessary to create the desired asymmetry capital, and (4) determine the linked set of systems for capital conversion. Making the process explicit increases analytic rigor and elevates enterprise alignment.

Phase 1: Visualizing the Capital Creation Model

Most companies have an implicit capital creation model, which is often undocumented. This can lead to employees having different perceptions of the organization's recipe for prospering, potentially resulting in goal misalignment and dysfunctional decision-making. We advocate that the top management team (TMT) create a visual model to solidify a shared understanding of capital relationships and goals. We illustrate this with an example of an auto manufacturer's capital creation model (Figure 4).

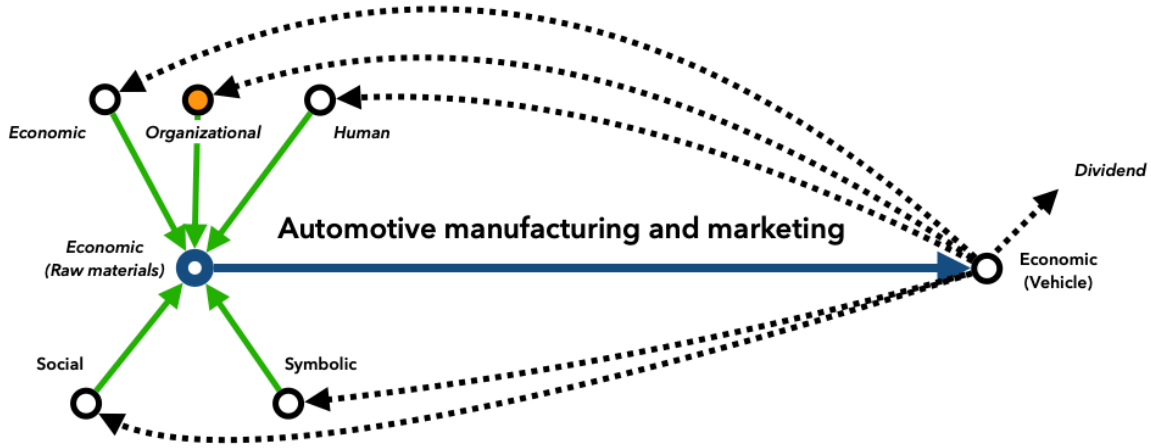

Figure 4: The capital creation model of an automotive company with an organizational capital asymmetry

An automaker aims to increase the value of economic capital, such as raw materials like steel, rubber, plastic, and electronic chips, by manufacturing and selling cars. Beyond raw materials, it requires additional economic capital, including factories and equipment; organizational capital, such as model design and quality control; and human capital, including marketing and assembly line personnel. Social and symbolic capital are needed to attract customers and employees. Customers' purchases provide funds to support

capital creation, which can be deployed to raise capital productivity. A source of capital asymmetry should be highlighted, such as the gold core for organizational capital (Figure 4), which enabled GM to out-compete Ford. Capital creation models typically have a central activity. For instance, agricultural and mining companies convert natural resources into economic capital through mineral extraction, while hospitals convert human capital into higher-quality human capital through medical treatments.

Phase 2: Assessing the Competition

To develop a strategy, a business must first assess its asymmetry relative to its major competitors and identify desirable levels of capital asymmetry to gain a strategic advantage. We recommend that a firm's TMT systematically use the capital analysis grid (Figure 5) to assess capital asymmetry (green) relative to each major competitor (red). After discussing the competitive analyses, the leadership should produce a consensus matrix (yellow) to guide planning. Creating an asymmetry typically requires significant investment, and it is unrealistic in most situations to aspire to a row of yellow dots on the far right. Instead, executives need to focus on what increases in capital asymmetry will likely lead to the most significant increase in capital productivity.

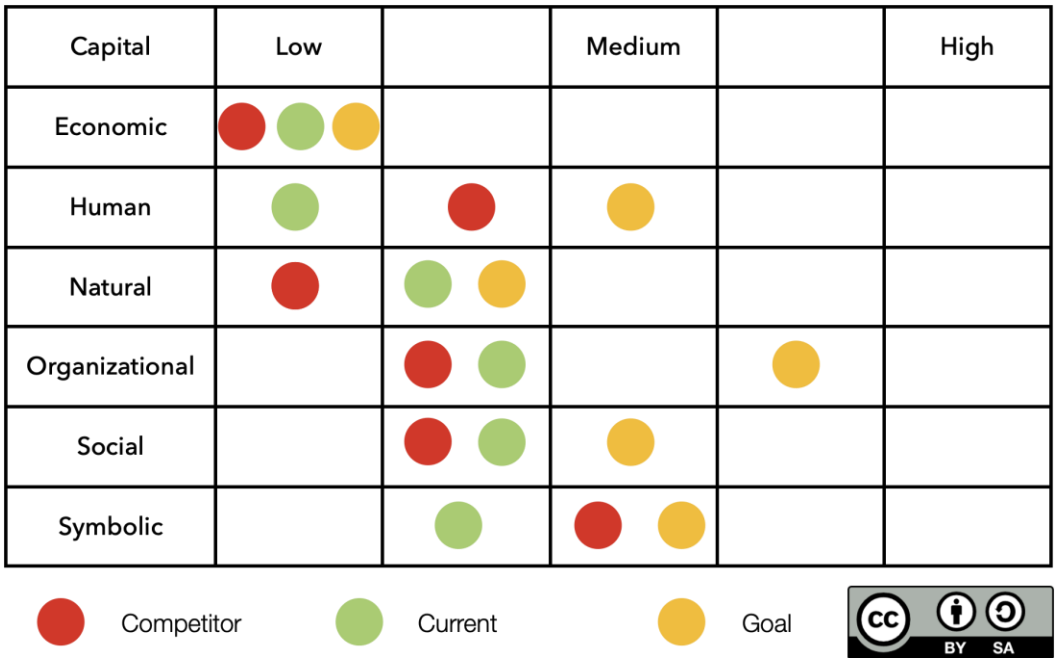

Figure 5. A sample capital asymmetry analysis grid

A successful capital creation strategy recognizes that capital combinations can be synergistic. For example, the union of human and organizational capital—knowledge capital—can be a significant source of distinctive asymmetric competency. The effects of social and symbolic capital can be reinforcing. Essentially, social capital creates customers, and symbolic capital supports premium pricing. Customer engagement should pursue both forms of capital creation. A capital creation strategy is not six independent swim lanes. Instead, it should be a convergence of synergistic action streams. Finally, while precise quantification of all capital types is challenging, the TMT can use available data, qualitative assessments, and expert judgment to populate the grid relative to each competitor.

Phase 3: Specifying the capital conversions

Following a competitive assessment, the TMT must specify capital conversions to achieve the desired capital asymmetry goals. This requires establishing a capital budget (Table 2) and specifying projects and the capital inputs needed to create each desired capital output.

Table 2: Capital budgeting input-output matrix

Input	**Output**					
	Economic	**Human**	**Organizational**	**Natural**	**Social**	**Symbolic**
Economic				Restoration		Public garden
Human						
Organizational			Machine learning			
Natural						Public garden
Social	Customer growth					
Symbolic						

The preceding illustrative matrix depicts that a company will use its social and symbolic capital to generate economic capital (e.g., promoting the uniqueness and quality of its product to existing customers). Machine learning will raise the value of organizational capital (e.g., creating a fault detection system based on thousands of production records). Economic capital will be invested in restoring natural capital to increase social capital in the neighboring area. Part of the re-established natural capital might be set aside as a public garden clearly identified to generate years of symbolic capital (e.g., the Butchart Gardens in British Columbia).

Phase 3: Specifying the conversion process

Our research (Watson, 2020) has identified five fundamental systems for converting or enhancing capital (Table 3). These systems are chained together to produce the target capital. As we saw earlier (Figure 4), an automotive manufacturer deploys *a system of production* to convert economic capital (raw materials) to higher-value economic capital (a car). It has a variety of *systems of engagement* to woo customers and suppliers and coordinate internal activities. A *system of record* stores marketing and production statistics that are mined by its *system of inquiry* to identify improvements and refinement. A *system of framing* defines its value proposition (e.g., Sloan's "car for every purse and purpose") and how it will be achieved through its strategy and structure.

Table 3: Types of systems

Type	**Purpose**
Engagement	Collaborate and coordinate activities, such as meetings and plans.
Framing	Justify the reason for behaving in a particular way or promoting a particular opinion—a company's value proposition.
Inquiry	Generate knowledge, such as data analytics and machine learning.
Production	Create and transport products and services.
Record	Record and retrieve data, such as a database or document store.

Creating a public garden (a project identified in Table 2) requires two types of capital and two linked systems. A system of production funded by economic capital creates the park from natural capital, and the follow-on system of framing creates symbolic capital. (Figure 6). Many of the world's public gardens fit this model. For example, the Gardens of Versailles were established by Louis XIII, who purchased land and commissioned the design and

creation of the gardens. Framed as the King's gardens, they had immediate symbolic capital and now enjoy World Heritage status.

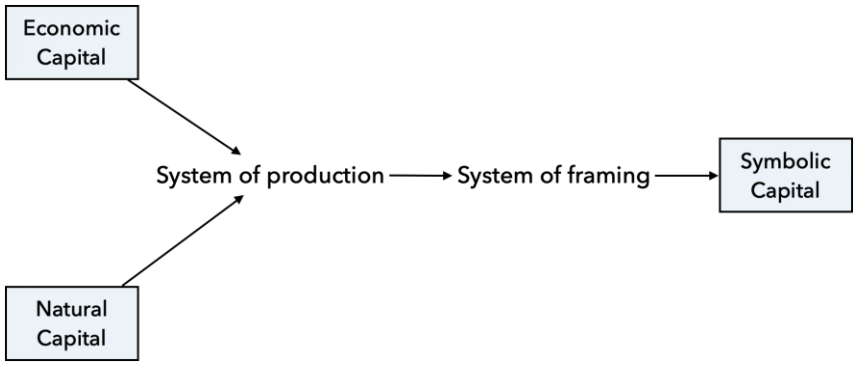

Figure 6: Systems for creating a park

Constructing an enterprise requires a more complicated and extensive set of capital and systems than establishing a public garden, but the principles are the same. Determine what capital is required to create asymmetry, create a capital budget, and implement the capital conversion systems. The basic building blocks of capital and systems can be combined to fashion intricate organizational designs.

CONCLUSION

We have developed the notion of capital asymmetry by combining the long-established goal of asymmetric warfare with the concept that all organizations are in the business of capital creation (Watson, 2020). The automotive industry illustrates how innovations in capital asymmetry can be disruptive and force the adoption of competitive-preserving behaviors. A novel capital creation model reshapes an industry, sometimes complemented by technology (Baldwin, 2024). This results in broader product choice and better quality products, often at lower prices, except when a manufacturer can create a symbolic capital

asymmetry to demand higher prices. Capital asymmetry analysis is a new lens for strategic planning derived from the observation that organizations have competed for thousands of years by creating an advantage by accumulating superior capital.

Theories of strategic management have long emphasized the importance of differentiation. For example, the Resource-Based View posits that firms can achieve sustainable competitive advantage through valuable, rare, inimitable, and non-substitutable resources (Barney, 1991). By taking a capital perspective (Table 1), we expose the characteristics of the different types of resources and their potential to provide an asymmetry. Capital asymmetry also emphasizes the combinatorial exploitation of the various forms of capital over time. Similarly, dynamic capabilities theory suggests enterprises can navigate rapidly changing environments by integrating and reconfiguring internal and external resources (Teece et al., 1997). Whereas the dynamic capabilities theory considers market conditions as exogenous factors, capital asymmetry highlights how firms can generate market disruptions by changing an industry's capital creation recipe.

Beyond the conceptual contribution, this work offers practical guidance to leaders and managers by introducing the four-phase framework that leverages analytical tools like the assessment grid and systems thinking to help organizations build specific, advantageous capital asymmetries.

REFERENCES

Akerlof, G. (1970). The market for 'lemons': quality uncertainty and market mechanisms. *Quarterly Journal of Economics*, *84*, 488-500.

Aldridge, J. (2025, Mar 22). Move over Elon Musk: our electric cars are overtaking Tesla. *The Sunday Times*. https://www.thetimes.com/business-money/companies/article/move-over-elon-musk-our-electric-cars-at-byd-are-overtaking-tesla-xblnb9kzr

Alenuskin, D., & Schotter, A. (2012). *BMW of North America: Dream it Build it. Drive it.*

Baldwin, C. Y. (2024). *Design rules Volume 2: How technology shapes organizations*. MIT Press.

Bangle, C. (2001). The ultimate creativity machine. How BMW turns art into profit. *Harvard Business Review*, *79*(1), 47-55.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99--120.

Becker, G. S. (1964). *Human capital : a theoretical and empirical analysis, with special reference to education*. National Bureau of Economic Research ; distributed by Columbia University Press.

Bennett, G. (2004). *The Battle of Trafalgar*. Pen and Sword.

Bourdieu, P. (2018). The forms of capital. In *The sociology of economic life* (pp. 78-92). Routledge.

Buffaloe, D. L. (2006). *Defining asymmetric warfare* (The land warfare papers, Issue. A. o. t. U. S. A. A. Institute of Land Warfare, VA.

Bushey, C., & Smith, K. (2025, Feb 16). Protesters target Tesla showrooms over Elon Musk's cost-cutting. *Financial Times*. https://www.ft.com/content/69129b95-d8f9-4dc9-87fb-5d5a7892d320

Carlier, M. (2022). *Number of Light Vehicle Dealership Outlets in the United States between January 1, 2009 and 2022*. https://www.statista.com/statistics/379530/number-of-light-vehicle-dealerships-in-the-united-states/.

Chandler, A. D. (1962). *Strategy and structure: chapters in the history of the American industrial enterprise*. M.I.T. Press.

Christiansen, L. (2004). Mickey Mouse still belongs to Disney: The Supreme Court upholds Copyright Extension. *Journal of the Academy of Marketing Science*, *32*(2), 212.

Dale, E. (1956). Contributions to administration by Alfred P. Sloan, Jr., and GM. *Administrative Science Quarterly*, 30-62.

Dean, A., & Kretschmer, M. (2007). Can ideas be capital? Factors of production in the postindustrial economy: A review and critique. *The Academy of Management Review*, *32*(2), 573-594.

Desouza, K. C., Watson, R. T., & Picavet, M. B. (2024). Reimagining cities as self-organising capital creating ecosystems. *Urban Governance*, *4*(3), 151-161. https://doi.org/https://doi.org/10.1016/j.ugj.2024.08.001

Dolan, R. (1995). Marketing turnarounds. *European Management Journal*, *13*(3), 239-244.

Dosi, G., Lechevalier, S., & Secchi, A. (2010). Introduction: Interfirm heterogeneity--nature, sources and consequences for industrial dynamics. *Industrial and Corporate Change*, *19*(6), 1867-1890. https://doi.org/10.1093/icc/dtq062

Echeverría, F. (2012). Hoplite and phalanx in Archaic and Classical Greece: a reassessment. *Classical Philology*, *107*(4), 291-318.

Economist. (2014, Jun 7). The Limits to Infiniti,. *The Economist*. https://www.economist.com/business/2014/06/07/the-limits-to-infiniti.
Economist. (2021, Sep 30). Ford and General Motors fight it out to electrify. *The Economist*.
Economist. (2023, Feb 2). China's BYD Is Overtaking Tesla as the Carmaker Extraordinaire. *The Economist*. https://www.economist.com/business/2023/02/02/chinas-byd-is-overtaking-tesla-as-the-carmaker-extraordinaire
Fane, G. R., Vaghefi, M. R., Van Deusen, C., & Woods, L. A. (2003). Competitive advantage the Toyota way. *Business Strategy Review, 14*(4), 51-60.
Flannery, R. (2022, Feb 9). "Plugged In: Byd's Wang Chuanfu Explains How China's No. 1 EV Maker Caught up with Tesla,. *Forbes*. https://www.forbes.com/sites/russellflannery/2022/11/09/plugged-in-byds-wang-chuanfu-explains-how-chinas-no-1-ev-maker-caught-up-with-tesla/?sh=3de4a781728b2,
Ford, H., & Crowther, S. (1922). *My life and work*. Doubleday, Page & company. http://hdl.loc.gov/loc.gdc/scd0001.00176639660
Freedman, L. (2013). *Strategy : a history*. Oxford University Press.
Freeland, R. F., & Granovetter, M. (2001). *The struggle for control of the modern corporation: organizational change at General Motors, 1924-1970*. Cambridge University Press.
Gleeson-White, J. (2014). *Six Capitals: The revolution capitalism has to have--or can accountants save the planet?* Allen & Unwin.
Gould, S. J. (1982). Punctuated equilibrium: a different way of seeing. *New Scientist, 94*(1301), 137-141.
Gould, S. J., & Eldredge, N. (1977). Punctuated equilibria: the tempo and mode of evolution reconsidered. *Paleobiology, 3*(2), 115-151.
Greiner, L. E. (1972). Evolution and revolution as organizations grow. *Harvard Business Review, 50*(4), 37-45.
Guan, M., Köstring, J.-C., Middleton, S., & Möller, T. (2022). *Five trends shaping tomorrow's luxury-car market*. https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/five-trends-shaping-tomorrows-luxury-car-market
Hamamatsu. (2012). *Toyoda Sakichi*. Hamanako Institute Corporation. http://www.hamamatsu-books.jp/en/category/detail/4c8db56a122ee.html
Honeyman, R., & Jana, T. (2019). *The B Corp handbook: How you can use business as a force for good*. Berrett-Koehler Publishers.
Joziasse, F. (2011). The soul of design leadership. *Design Management Review, 22*(3), 34-42.
Katz, H. (1970). *The decline of competition in the automobile industry, 1920-1940* [Doctoral dissertation]. Columbia University.
Kuhn, A. J. (1986). *GM passes Ford, 1918-1938: designing the General Motors performance-control system*. Penn State University Press.
Lawrence, P. R., & Nohria, N. (2002). *Driven : how human nature shapes our choices*. Jossey-Bass.
McGee, P., & Bradshaw, T. (2020). With no iPhone to launch, Apple turns to accessories and wearables. *Financial Times*. https://www.ft.com/content/38ff7d6d-bf79-4bcf-a16e-9eb01f9342dc
Miles, S. J., & Van Clieaf, M. (2017). Strategic fit: Key to growing enterprise value through organizational capital. *Business Horizons, 60*(1), 55-65. https://doi.org/10.1016/j.bushor.2016.08.008
Milgrom, P. R., & Roberts, J. (1992). *Economics, organization, and management*. Prentice-Hall.

Netivist. (2016). *BMW vs Mercedes-Benz: which of these two German car brands is better?* https://netivist.org/debate/bmw-vs-mercedes-benz
Nevins, A., & Hill, F. E. (1954). *Ford: The times, the man, the company*. Scribner.
O'Brien, A. P. (1989). How to Succeed in business: Lessons from the Struggle Between Ford and General Motors during the 1920s and 1930s. *Business and Economic History*, *18*, 79-87.
O'Rourke, D., & Strand, R. (2017). Patagonia: Driving Sustainable Innovation by Embracing Tensions. *California Management Review*, *60*(1), 102-125. https://doi.org/10.1177/0008125617727748
Oremus, W. (2018, May 30). Consumer Reports just changed Its mind about Tesla's Model 3. *Slate*. https://slate.com/technology/2018/05/consumer-reports-recommends-tesla-model-3-after-software-update-to-fix-braking-problem.html.
Rational Walk. (2009). *More on BYD and Wang Chuanfu*. https://rationalwalk.com/more-on-byd-and-wang-chuanfu/
Reback, C. (2007). Merger for monopoly: The formation of US Steel. *Essays in Economic & Business History*, *25*, 105-116.
Ridgeway, R. (2013). *Conservacion Patagonica Donates 37,500-acre El Rincon to Expand Perito Moreno National Park in Argentina*. Retrieved Apr 3 from
Romanelli, E., & Tushman, M. L. (1994). Organizational transformation as punctuated equilibrium: An empirical test. *Academy of Management Journal*, *37*(5), 1141-1166.
Salary Expert. (2023). *Automotive Engineer Salaries by Country*. Economic Research Institute. https://www.salaryexpert.com/salary/browse/countries/automotive-engineer
Shang, X.-F., & Choi, M.-C. (2020). A study on the corporate culture of BYD. *International Journal of Advanced Culture Technology*, *8*(1), 135-140.
Simon, H. A. (1982). *Models of bounded rationality*. MIT Press.
Sloan, A. P. (1964). *My years with General Motors* (1st ed.). Doubleday.
Stringer, C. (2012). *Lone survivors : how we came to be the only humans on earth* (1st U. S. ed.). Henry Holt and Company.
Sullivan, J. C. (2013, May 3). How diamonds became forever. *New York Times*. http://www.nytimes.com/2013/05/05/fashion/weddings/how-americans-learned-to-love-diamonds.html?_r=1&
Talay, C., Oxborrow, L., & Goworek, H. (2022). The impact of asymmetric supply chain relationships on sustainable product development in the fashion and textiles industry. *Journal of Business Research*, *152*, 326-335. https://doi.org/10.1016/j.jbusres.2022.07.034
Tedlow, R. S. (1988). The struggle for dominance in the automobile market: The early years of Ford and General Motors. *Business and Economic History*, 49-62.
Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, *18*(7), 509-533.
Thompson, H. M. (1983). Argyle, De Beers and the international diamond market. *Minerals and Energy*, *2*(3), 24-39.
Watson, R. T. (2020). *Capital, Systems and Objects: The Foundation and Future of Organizations*. Springer.
Wenning, M., Kawollek, S., & Kampker, A. (2020). Self-driving chassis for low-invest and highly flexible electric vehicle assembly. *Procedia Manufacturing*, *43*, 576-582.

White, E., & Campbell, P. (2023, Jul 9). The ‘Nutty’ Professor Behind Rise of China’s Electric Vehicle Giant. *Financial Times*. https://www.ft.com/content/367af909-5cdb-4780-a577-b84f815bcddd.

Wilson, J. M., & McKinlay, A. (2010). Rethinking the assembly line: Organisation, performance and productivity in Ford Motor Company, c. 1908–27. *Business History, 52*(5), 760-778. https://doi.org/10.1080/00076791.2010.499425

Wolf, J. R. (2021, June 1). The American Car Dealership Is Doomed,. *Common Edge*. https://commonedge.org/the-american-car-dealership-is-doomed/.