Abstract: “Iron cage” appears to be mistranslated from Weber’s “Gehäuse” by Parsons. Correctly speaking, it has been noted that the word should be translated as “shell,” which presents an extremely promising possibility in management studies: what appears to be a talisman on the front has rigid persons clinging onto the other side. If a shell has a competitive advantage, this would excuse the rigidity. However, if the shell is losing, or has already lost, its competitive advantage, clinging onto it becomes a problem. For example, Ford and IBM grew rapidly by clinging onto their shells—the Model T Ford in the case of Ford and the System/360 for IBM. However, these companies gradually went into decline later as their product design fossilized. Apart from product designs, it is easy to find examples of shells in companies that have experienced periods of growth and maturity, for example, retail networks, parent company sales power, real estate, patents, and franchise. Both managers and employees are fully aware that they can no longer expect growth as long as they cling onto their shell. Even so, the shell remains a source of rent. Hence, they are clinging onto it and are being driven to their ruin by inches.

Keywords: iron cage, Model T Ford, fossilized product design, core capability, structural inertia, rent
Introduction

“The iron cage revisited” (DiMaggio & Powell, 1983) is a well-known paper that discusses “isomorphism” in organizations (Yasuda & Takahashi, 2007). The paper begins with an introduction of the final part of *The Protestant Ethic and the Spirit of Capitalism* (Weber, 1930). The key phrase, “iron cage,” is derived from Weber.

In Japan, the 1970s began to see the use of the term “iron cage” as Weber’s metaphor for bureaucracy. This tendency has remained unchanged. For instance, in Yamanouchi (1997), a representative exposition of Weber, one can see “the modern bureaucratic order, which Weber called ‘iron cage’ ” (Yamanouchi, 1997, p. 95), “modern bureaucracy named ‘iron cage’ ” (Yamanouchi, p. 96), and “the ‘iron cage’ of bureaucracy” (Yamanouchi, p. 98).

The imagery of “iron cage” as a symbol of bureaucracy was used to criticize the bureaucracy or Weber himself (Arakawa, 2007). For example, one stereotypical explanation stated that the “iron cage” (bureaucracy) has turned modern human beings into apathetic gears in a machine. The first page of DiMaggio and Powell (1983) also says that “the imagery of the iron cage has haunted students of society as the tempo of bureaucratization has quickened” (DiMaggio & Powell, 1983, p. 147).

However, it may be surprising to note that the term “iron cage” is nowhere to be found in Weber (1920). The source for the term is Talcott Parsons’ English translation of Weber (1930). The original German of Weber (1920) uses the term “Gehäuse.” No dictionary defines this term as “cage.”

The word “Gehäuse” appears only once on pages 37 and 203 and twice on page 204, for a total of four times in Weber (1920). Correspondingly, Parsons’ translation uses the phrase “order of things” on page 54, “iron cage” and “cage” on page 181, and “cage” on page 182 (Weber, 1930). In other words, “iron cage” is used only once.
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(Weber, 1930, p. 181).

The term “iron cage” became widely known due to the publication of Weber’s biography, *Iron Cage* (Mitzman, 1969); however, Mitzman himself did not use the term “iron cage” in the text (Arakawa, 2007). Instead, he used the translation “a housing hard as steel” and criticized Parsons’ translation in the footnote, saying “[the original German word “Gehäuse”] has a significance beyond the phrase ‘iron cage’ used by Parsons” (Mitzman, 1969, p. 172).

Since then, English-speaking researchers have been critical of the term “iron cage.” For example, Sayer (1991, p. 144) noted that a “shell on a snail’s back” is a more appropriate term than “iron cage,” saying it denotes “a burden perhaps, but something impossible to live without, in either sense of the word” and that “a cage remains an external restraint.” In fact, the original “Gehäuse” has the meaning of a “snail’s shell,” and there are many examples of this word simply being translated as “shell” (Arakawa, 2007).

A Deeper Meaning of Shell

What was Weber trying to make known with the word “Gehäuse”? According to Weber (1920), asceticism emerged in medieval times and called on individuals to leave the secular world, enter monasteries, and serve God. Then, the Reformation took place and gave rise to Puritanism, which emphasized the virtue of having faith in Christ without leaving the secular world. This faith was accepted by the nascent middle class at the time. The monastic lifestyle was no longer seen as particularly holy. Instead, “a sanctified work-life in the secular world” was believed to be in accordance with God’s will (Otsuka, 1991, p. 401). Secular jobs were sacred vocations, a calling from God (“Beruf” in German). It was in this setting that Parsons’ translation of “iron cage” appeared.
In Baxter’s view the care for external goods should only lie on the shoulders of the “saint like a light cloak, which can be thrown aside at any moment”. But fate decreed that the cloak should become an iron cage....To-day the spirit of religious asceticism—whether finally, who knows?—has escaped from the cage. (Weber, 1930, p. 181)

The “light cloak” on the shoulders became hard. Therefore, it is far more natural to think of the cloak as a “shell” rather than an “iron cage.” Those who worked diligently out of faith eventually created a new society—a capitalistic society, which presupposed individuals with a strong desire to work. Eventually, a behavioral pattern was established in accordance with individuals’ sense of divine calling. This pattern became a shell. Individuals were able to survive in the capitalistic society without religious faith as long as they wore this shell.

According to Orihara (1969, pp. 292–296), this theme was a sublimation of Weber’s experience. Weber had a smooth career and became a young professor at his mid-30s, but developed a neurological disorder. He found himself unable to accomplish even the bare minimum of his work assignments, and spent his days in therapy and suffering, traveling from place to place. This period, however, gave him great ideas. Weber is said to have admitted that he had been clinging onto academic work until that time as if he were clinging onto a type of talisman, even though he had no idea what he was protected from.

In other words, the shell of acting out of an obligation for one's divine calling protects one just as a snail’s shell and allows one to live in a capitalistic world without religious faith. Truth be told, the shell itself does not bind individuals. Rather, individuals themselves are clinging onto the shell, which is a form of talisman. In other words, individuals are not forced to do it. Instead, they are willing to do it.
This is what Puritanism, which stresses austere lifestyle devoted to work, eventually became (Orihara, 1969, p. 294). In other words, people “seek protection, and enter into ‘iron shells’ of their own volition (or perhaps despite their distaste for doing so)” (Arakawa, 2001).

**Rigidity at the Flip Side of Shell**

A shell has two sides, though that does not mean that the front and back have separate functions. More accurately, if we took a shell with the front acting as a talisman and flipped it over, we would see rigid persons clinging onto it. In management studies, some researchers have recently begun to think along similar lines.

Leonard-Barton (1992) noted an organization’s up side core capabilities and down side/flip side core rigidities. People are rigidly clinging onto the shell, their talisman, believing that this is their “core.” However, it does not matter to this rigidity whether the shell has competitive advantage or not. Even though the shell may be losing, or may have already lost, its competitive advantage, people still cling onto the flip side. Thus, they are driven to their ruin by inches.

On the other hand, if a shell does have a competitive advantage, this would excuse the rigidity. We call this a case of rigidity but not one in which people are driven to their ruin by inches. This combination of excuses and rigidity is part of the discussion on population ecology. Hannan and Freeman (1984) noted that selection in populations of organizations favors forms with high levels of accountability (i.e., excuses) and high reliability/small variance of performance (i.e., rigidity). As a result, selection in populations of organizations favors organizations whose structures have high inertia (Hannan & Freeman, 1984, p.153; Assumption 1 and Theorem 1).
For example, computer companies that have sold their products by relying on the superiority of their hardware and paying less attention to developing software applications (Leonard-Barton, 1992, p. 119) certainly denote some rigidity. However, this rigidity itself is not necessarily good or bad. When companies are increasing sales and profits because of their excellent hardware, their clinging onto the development of hardware should create further excellent hardware. This is a great advantage for the company. However, when times change and various software applications give the company a competitive advantage, it becomes clear that even the best hardware will not necessarily sell. In this case, the rigidity of clinging onto the excellent hardware is seen as a problem.

Shell: Fossilization of Product Design

Just as Leonard-Barton (1992) used the example of computer hardware, various product designs are frequently used as concrete cases of theories and models in management studies. These product designs tend to be shells. One example is the Model T Ford automobile that sold during the early years of the 20th century. More than 15 million vehicles were sold over the course of 20 years between 1908 and 1927. The car was famous for ushering in motorization and causing a change in the lifestyles of average citizens. Ford experienced dramatic growth by clinging onto the shell of the Model T, though the company eventually was driven to ruin by inches as its product design fossilized (Takahashi, 2011b, 2011c).

The Model T is one of the most popular product designs in management studies and has been extensively researched (Abernathy & Wayne, 1974; Takahashi, 2013b; Yamada, 2014). Various theories of the Model T have emerged, labeled diversely. One such label is “dominant design,” a product design that dominates an era and is universally recognized (Abernathy, 1978; Akiike, 2013).
The Model T is often used as an example of dominant design, as is IBM’s System/360 computer released in 1964 (Teece, 1986). The System/360 sold extraordinarily well, ensuring IBM’s position as the top computer manufacturer. However, the product design of mainframe computers matured and fossilized with the release of the successor System/370 in 1970. Current product designs of mainframe computers are mostly unchanged from that era despite the progress made in semiconductors. These chips are used for the creation of fossilized computer designs (Campbell-Kelly & Aspray, 1996, p. 150). IBM was also driven to ruin by inches as its computer design fossilized.

However, some readers may believe that, considering the above examples, the shell could be labeled other names such as “dominant design.” In the computer world, there is an even more important shell than that seen in the case of the System/360: the world’s first general-purpose electronic digital computer, the ENIAC. Since only one machine was manufactured, the ENIAC was actually neither a case of dominant design, neither was it a de facto standard, having no patents attached to it. However, it filled a role similar to the Model T (Takahashi, 2011d, 2011e). “Shell” is a perfect designation for the ENIAC. Ford clung onto the Model T, IBM to the System/360, and the mainframe computer industry to the ENIAC. Hence, they emerged largely due to their shells and were eventually driven to their ruin by inches.

**Growth and Gradual Decline by Clinging onto Shells**

For companies that have experienced periods of growth and maturity, it is easy to find shells other than product design. By clinging onto these shells, companies may achieve high growth and

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1 The Model T and System/360 were clearly not core capabilities as defined by Leonard-Barton (1992).
eventually be driven to their ruin by inches. This is the general function of the shell. We can find several examples of shells other than product design in the field (or “gemba” in Japanese).

A. Retail networks: Company A succeeded in creating a network of retail stores across the country in a period of growth for product “a.” The company can prosper for a while by clinging onto its current sales method. However, the company has entered into a period of maturity. Store owners also have begun to get older, with most having no successors. The number of stores has been declining in recent years, and sales have been gradually falling. In other words, Company A is going into a gradual decline.

B. Parent company sales power: Company B is a subsidiary of Company $\beta$. This parent company has directed all other subsidiaries and partners to order from Company B. This led to strong performance during Company B’s period of growth, and the company seemed as if it could not fail as long as it clung onto the influence of Company $\beta$. However, once Company $\beta$ entered a period of maturity, the sales of Company B began to decline. In other words, Company B is going into a gradual decline.

C. Real estate: Company C was started by a landowner’s son, adjacent to a large shopping center. The shopping center had many customers when it opened, and sales were strong. After this initial boom, however, Company C began to lose customers. Company C’s land and buildings were owned by the father, which has enabled it to avoid incurring debts because the father charged a reduced rent.

D. Patents: Company D was famous for a patented device that a former president developed. The current president increased sales by providing business solutions with customization of this
device. The profit margin was high because of the patents. However, similar products that did not violate the patents began to emerge, and the company is going into a gradual decline.

E. Franchise: Company E operated franchise stores in a certain region. The franchise agreements did not allow expansion into other regions. Simultaneously, this arrangement generated a satisfying profit for Company E. However, Company E had already saturated the market of this region. Still, an independent operator entered the region. Consequently, Company E is going into a gradual decline.

In each of these examples, companies grow rapidly by clinging onto their shells and coming under their protection. However, they eventually are driven to their ruin by inches. Takahashi (2013a) constructed imaginary stories based on these simple, conventional cases, but many readers suspected that Company X in the stories was their own company, or that Company Y was a company they knew well. Thus, similar examples abound around us in Japan. Here, there, and everywhere, we can find out the companies that are going into a gradual decline and driven to their ruin by inches.

Interestingly, in the 1980s, Tichy and Devanna (1986) found something similar to shells of the American steel and auto companies in a bind. They begin with an explanation of the “boiled frog phenomenon,” an analogy of a typical biological reaction of a frog in a pot of water. If the frog is suddenly put into a pot of hot water, it will jump out of the pot to escape the heat. On the other hand, if the frog is placed into a pot of cold water, which is then slowly heated, the frog will not recognize the gradual increase in heat and remain in the pot, eventually boiling to death. The American steel and auto companies were victims of this phenomenon as they experienced a gradual decline due to a “cultural cocoon” that kept them from realizing a
change in temperature.\(^2\) Thus, it has been suggested that we can identify cocoons around companies driven to their ruin by inches. Cultural cocoons may be related to the experience of shells.

**Concluding Remarks**

In conclusion, it should be emphasized that Companies A, B, C, D, and E are driven to their ruin by inches, but do not immediately become bankrupt. The examples of the real estate of Company C and the patents of Company D remind us of “rent.” Originally, rent is a fee paid by land users to landowners. However, “rent” of the system of national accounts (SNA) includes patent fees and copyrights,\(^3\) in addition to fees for the use of land. The cases of Company C and Company D fit this mold. Moreover, in the field of strategic management, the concept of rent is a broad one. In other words, it is profitability above profit standards (Takahashi & Shintaku, 2002), and is thus not limited to real estate or patents. Retail networks, the sales power of a parent company, and franchise are all sources of rent and allow companies to avoid quick bankruptcy due to a large deficit.

From the viewpoint of strategic management, shells are the source of rent. Therefore, when a company is young and weak, it has tendency to clinging onto its shell. Over time, the benefits of the shell diminish. Even so, the shell still contributes to the company’s earnings, allowing the company to make profits. As long as companies cling onto the shell, both managers and employees fully understand that they cannot expect further growth, and it is obvious

\(^2\) The “cultural cocoon” is an attractive idea, though an incorrect one to use in explaining the boiled frog phenomenon. The effective temperature hypothesis is a better one. Refer to Takahashi (1989, 1993, 2003, 2013c) or Takahashi, Ohkawa, and Inamizu (2014) for more detail.

\(^3\) However, unlike real estate, it is difficult for patents alone to generate profit (Kishi & Takahashi, 2010; Takahashi, 2014).
that the company is going into a gradual decline and driven to ruin by inches. Therefore, such companies are common in our mature society.

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