



The Schneider Network during the Presidency of Charles Schneider, 1942-1960

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Charles Schneider began his career working for the Gaumont Film Company. In his forties, when he took over Schneider and Co., he inherited a multinational group formed over several decades. At Charles' death, his life's work was summed up by the following phrase: "produce, rationalize, export." He was a true organizer, influenced by the American model, constantly rationalizing and restructuring. In 1949, Schneider and Co. became a holding company controlling most of the new company's securities. In order to avoid having the state as his only customer, and to successfully compete with CECA (European Coal and Steel Community), Schneider chose to reinforce his efforts to establish business abroad. He glided gently into his new role, which presented him with an established human network. He adapted the group to its time using the human and financial networks his father created. He kept the family bank and the family shareholding. Networks, at least for Charles Schneider, proved to provide a stable environment.

The term "network" originally comes from the idea of a net or interwoven lines.¹ Vincent Lemieux recently differentiated the terms "organization," "apparatus," and "network."² However, the study of these terms is not new. Although some consider the network a structure,³ others define it as a system;⁴ there are many definitions.⁵ Nevertheless, repeatedly during the last 25 years, sociologists have treated the notion of "network" as a

¹ Daniel Parrochia, *La philosophie des réseaux* (Paris, 1993).

² Vincent Lemieux, *Réseaux et appareils* (Paris, 1982).

³ Ronald S. Burt, *Structural Holes* (Cambridge, Mass., 1992).

⁴ Jean-Louis Lemoigne, *Théorie du système général* (Paris, 1984).

⁵ Philippe Dujardin, *Du groupe au réseau* (Paris, 1988).

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new paradigm,⁶ institutionalizing it through the creation of a journal and a bulletin.⁷ Since Moreno's precursory work, socio-metric studies have multiplied.⁸ However, I will not consider them here because corporate networks are, indeed, complex⁹ and pose a problem of representation.¹⁰ Today, sociologists,¹¹ ethnologists, and anthropologists¹² are still more likely than historians¹³ to conduct studies of this kind.

Charles Marie Bernard Henri Schneider, third son of Eugène Schneider and his wife, nee Antoinette de Rafélis de Saint-Sauveur, was born in Paris on June 28, 1898. He joined the army in 1916 and at the end of the war Second Lieutenant Schneider was awarded the Croix de Guerre (Military Cross).¹⁴ At the time, he was joint manager of the Schneider Company with his brother Jean. His older brother Henri-Paul had been killed in combat.

At the 1924 general assembly, both Charles and Jean were dismissed from their positions. This disagreement, putting them in opposition to their father, was eventually brought before the courts. Consequently, what had appeared to be a well-designed professional career for both sons vanished. Charles began his career working for the Gaumont film company, and Jean joined Air France. It was in this world, far removed from the Schneider family productions, that Charles gradually climbed to the top of the ladder (company secretary, chief executive officer), and met his future wife Liliane Volpert, actress and granddaughter of socialist Jules Guesde.

When World War II began, it was a surprise to Charles, then in his forties and very influential in the French film industry. In February 1942, he accepted a position as official representative for CORSID (Comité d'Organisation de la SIDérurgie), thus renewing his relationship with his family.¹⁵ Up until that time his father Eugène had been assisted for many

⁶ Samuel Leinhardt, *Social Networks: A Developing Paradigm* (New York, 1977). S. D. Berkowitz, *An Introduction to Structural Analysis* (Toronto, 1982); Alain Degenne and Michel Forse, *Les réseaux sociaux* (Paris, 1994).

⁷ Journal *Social Network* and bulletin *Connections*, produced by the Réseau international pour l'analyse des réseaux sociaux (International Network for Social Network Analysis).

⁸ Jacob Lévy Moreno, *Who Shall Survive?*, translated by Presses Universitaires de France as *Fondements de la sociométrie* (Paris, 1954).

⁹ Vincent Lemieux, *Les réseaux d'acteurs sociaux* (Paris, 1999).

¹⁰ Stephen D. Berkowitz, *An Introduction to Structural Analysis* (Toronto, 1982).

¹¹ Manuel Castells, *The Rise of the Network Society*, translated by Fayard as *La société en réseaux* (Paris, 2001).

¹² With the school of Manchester.

¹³ Maurizio Gribaudo, *Itinéraires ouvriers. Espaces et groupes sociaux à Turin au début du siècle* (Paris, 1987). Claire Lemercier, *Un si discret pouvoir, aux origines de la chambre de commerce de Paris* (Paris, 2003).

¹⁴ Document 1.

¹⁵ Comité d'ORganization de la SIDérurgie (Steel Organization Commission).

years by his only daughter's husband. Whenever he encountered his sons Charles and Jean, their meetings were public and official in nature; the family remained divided.¹⁶ When Eugène died in November 1942, Charles and Jean once again became joint managers of the industrial group. Two years later, Jean died accidentally. From November 1944 until Charles' own death, also accidental, in 1960, Charles managed the Schneider empire alone in a rich and changing context (World War II, Reconstruction, and post-World War II boom). Given that the State began to carry more weight in the French economy and the CECA and the EEC were being set up, what development strategy did Charles Schneider choose for the group created by his father? Did he maintain the same subsidiary network? Did he call upon his father's human and financial networks or orient his policies toward his own allies and the bankers that he knew personally?

The Vast Subsidiary Network

From Legacy to Reorganization (1942-1949). When Charles and Jean Schneider took over Schneider and Co., they inherited a multinational group^{17,18} formed over several decades.¹⁹ In 1939, the company's securities, worth 93 million francs, were distributed as follows: 59 percent in the mechanics-electricity-naval sector (42 million for Matériel Electrique SW and the Gironde shipyards); 15 percent for the metallurgy industry (primarily the Métallurgique de Knutange and Métallurgique de Normandie companies); 9 percent for mining (Minière des Terres Rouges company) and 12 percent for banks (Pays du Nord bank). When Jean died in 1944, the company's securities portfolio was worth more than 124 million, due largely to a 54.9 million investment in a holding bank, Union Européenne Industrielle et Financière.

Over the next few years, the main security management problem Charles faced was the reintegration of assets that his father had invested

¹⁶ *Les Schneider, le Creusot: Une famille, une entreprise, une ville*, (Paris, 1995), 56.

¹⁷ Archives Schneider, le Creusot, 187 AQ 59. In 1913, the parent company had 32 directorial positions in its subsidiaries.

¹⁸ In 1914, the parent company owned equity of foreign companies and worked outside metropolitan France (England, Switzerland, Belgium, Italy, Bulgaria, Russia, but also the French empire, the Ottoman empire, Persia, and China).

¹⁹ Archives Schneider, le Creusot, 187 AQ 517, state of the shares in 1919. The diagram differentiates first category subsidiaries (Société Métallurgique de Normandie, Société d'Outillage Mécanique et d'Usinage d'Artillerie, Chantiers de la Gironde), second category subsidiaries (Société de Winterslag, Société d'Optique et de Mécanique de Haute Précision, Etablissements Poutilov), first and second category shares, and, finally, shares without representation in the Board of Directors. In the 1920s, on an average, the security portfolio comprised roughly 100 million francs.

abroad during the war for security reasons.²⁰ These assets included securities deposited in Switzerland, estimated at several hundred million francs, and the entire capital of a holding company that controlled another large security portfolio.²¹ Moreover, there were other investments in Argentina and Canada. After considerable correspondence between foreign companies and public organizations, the securities were brought back to France and incorporated into the company's overall assets following a general but moderate re-evaluation of the securities portfolio.²² By 1949, the portfolio value had risen to over 11.4 billion francs, not including the investment securities. At the end of World War II, the public authorities attempted to redefine the orientation of French industry as a whole. One focus of the organization and modernization project, called Plan Monnet, was to promote and simplify rationalization and mergers through tax relief. This new governmental project prompted Charles Schneider to act:

The idea... that I have just developed had already been studied within the company at different times and in particular by my father several years ago... The projects... concurred with my own conclusions. If my father did not carry out his project at the time, it was because there was no immediate need and taxation was such that an operation of this kind would have been financially impossible.²³

²⁰ Archives Schneider, le Creusot, 187 AQ 37, Report for the 18 Oct. 1945 Supervisory Board. "Reintegrating these large assets that were not previously mentioned into our books poses a delicate accounting problem (because Eugène Schneider was) the only one aware of the issue."

²¹ Archives Schneider, le Creusot, 187 AQ 37, 18 Oct. 1945 report for the Supervisory Board. The estimate stood at 550 million with mainly securities of Schneider and Co., ARBED, Bolivian General Enterprise Limited. The holding called SOGIFI (Société de Gestion Industrielle et Financière) controls another holding, l'Omnium Industriel et Commercial, in Basel. Together, they concurrently held a large securities portfolio including some shares of the Schneider group.

²² In particular the correspondence with the exchange office for tax payment. Archives Schneider, le Creusot, 10 July 1946 report for the Supervisory Board. "Re-evaluations... were made, giving securities... values that were much lower than those authorized by the 15 Aug. 1945 ordonnance. The method used to determine these figures was quite reasonable and corresponds to our company's customary cautious decision-making." In fact, the estimate was much lower than the market rates.

²³ "Under the common law system, the operation would have cost at least fifteen times more than it actually did under the system that we were able to apply." Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1950, p. 3. Material in text quoted from p. 5.

As soon as he had received State authorization, Charles called an extraordinary general meeting to propose a restructuring scheme.²⁴

Charles justified his scheme by arguing that it was absolutely vital for companies to specialize and that he expected several consequences as a result of this choice. First, more flexible top-level management, because it was easier to assign tasks and responsibilities within a clearly defined structure as opposed to a large floating one.²⁵ His concern for organization and management reflected the climate during this period; in 1945, Pont-à-Mousson implemented the same type of restructuring plan.

Second, for each State contract (one of the group's main clients) Charles affirmed his wish to reduce the number of intermediaries in the various ministries. Finally, "lenders could never know the intended use of the credit Schneider and Co. were asking for."²⁶ Under the cover of transparency, there was a desire to take full advantage of the multiplying effect of credit by expanding companies and reassessing their assets.²⁷ In doing so, and within the context of Reconstruction, "important resources needed to re-equip factories, shipyards, and mines could be pooled."²⁸

As a result, three corporations were created, each with a particular sector of activity. The primary one was Société des Forges et Ateliers du Creusot (or SFAC), which amalgamated the factories, maintaining vertical organization from metal production to the most elaborate finished products, such as locomotives or turbines. This represented the group's historical core with mines and metallurgy... The public works branch made up the second company, the Compagnie Industrielle des Travaux (CITRA). As for the mines themselves, they were combined in the Société Générale Française des Mines.²⁹ Finally, Schneider and Co. was to oversee the whole by controlling almost all of the three new companies' securities. Immediately following the war, the company's portfolio represented a greater part of its assets, increasing from 7 to 14 percent. However, the creation of the holding completely changed this situation. From 1949 to

²⁴ This was an application of the 16 June 1948 law, which also granted a taxable profit for company de-mergers.

²⁵ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1950, p. 6.

²⁶ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1950, p. 6.

²⁷ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1950, p. 7. "Consequently, for one company alone, we already had quite a large number of loans."

²⁸ Archives Schneider, le Creusot, 187 AQ 040.2, Extraordinary General Meeting 20 Dec. 1949.

²⁹ In 1951, the name was changed to Société Minière Droitaumont-Bruville. By 1958, the company ran two mines and employed 600 people.

1960, the securities portfolio comprised between 75 and 85 percent of the assets, 90 percent with the addition of some secondary investments.³⁰

In 1950, the results of the new structure showed that the three subsidiaries representing the three large activity sectors held concurrently 77 percent of the total securities portfolio. Of the 2.39 billion francs remaining, four companies totaled 1.48 billion, three of which were already included in Schneider's assets in 1920.³¹ Charles' innovation reflected a lasting management policy and one major focus of industrial development: establishment abroad through an investment firm, the North American Utilities Corporation (NAUC).

Charles Schneider's views included the following:

In order to produce, we need to sell. We do not produce to warehouse our products... And selling is a rather complex mechanism involving the interaction of a number of organizational considerations. This market can only be found worldwide and it would be extremely foolish on our part to limit our efforts to our own country.³²

In an attempt to comply with our government's will to promote French exportation – knowing that it is determined not to neglect any means that would allow our country to re-establish itself on the international market as a leading trade power – we have undertaken to create ... an organization that will actively develop French exportation of capital goods.³³

We have... a network of agents who work independently and are familiar with the languages and customs of foreign trade partners. Moreover, they have personal relations with people likely to order our products.³⁴

Many of the agents who used to represent us abroad had become old or passed away. The circumstances were no longer the same. In the past, we exported a considerable amount of artillery, choosing our agents according to their competence in the field. However, when it was no longer a question of exporting artillery,

³⁰ We must also take into account the provisions that were regularly built up. More than 200 million francs in 1957 whereas the portfolio reached a net 10940.6 million francs.

³¹ It was a question of Union Européenne Industrielle et Financière (UEIF), des Charbonnages de Winterslag (in Belgium), and Energie Electrique Rhône-Jura.

³² Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1958, pp.2-3.

³³ Archives Schneider, le Creusot, 187 AQ 42.1. Note from the manager to the general meeting.

³⁴ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1950, p. 3.

but rather equipment, the required competences obviously changed.³⁵

For group representation, we have had to establish representative organizations ourselves.³⁶

Indeed, the growing multinational nature of the group was reflected in the proliferation of business firms both in developed countries (Australia, the United States)³⁷ and in the third world (Brazil, Uruguay, Mexico).³⁸ Although Charles intensified this policy, it was originally his father's doing.³⁹ Charles believed that it was necessary to export at any price, even when the exchange turned out to be complicated. As a result, IMPEX company was set up to find ways for countries lacking capital to export their own goods in exchange for those of another country.⁴⁰ In 1957, this arrangement included an experimental trade with Peru for anthracite.

Charles also created production subsidiaries abroad such as Mecanica Pesada SA for the mechanics industry in Brazil in 1955. However, his father had already used the same reasoning.⁴¹ According to Charles' wife, "the most bitter disappointment of his career was his failure to convince public authorities to support him when he wanted to set up business in Sarre... legally and peacefully getting a foothold in this region neighboring the birthplace of the founders of what is now Creusot."⁴² Indeed, Charles failed in his attempt to control the German trust Roehling.

Can one speak of originality concerning the creation of an engineering firm, ENSA, subsidiary of public works companies, a strategy that was not yet very widespread in the 1950s? It is true that 20 years earlier, in 1930, Eugène Schneider had founded the Compagnie

³⁵ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1950, p. 3.

³⁶ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1950, p. 4.

³⁷ AFCA (Australian French Commercial Agency) in Australia in 1951, FORMAST in Canada in 1951, FASMA (French American Steel and Machinery Associates) in the United States.

³⁸ Creation of Bracorep (Brasileira de Comercio e Representações) in 1947 in Brazil, Cortesa in Uruguay in 1957, Scodimex (Sociedad Comercial para el Desarrollo Industrial de Mexico) in Mexico.

³⁹ Creation of AFSA Limited in London (1932).

⁴⁰ Founded in 1943, it carried out regular trade services of asbestos, mercury, cotton, and steel products working closely with its many subsidiaries in the Union of South Africa, and Turkey.

⁴¹ Thus, in 1917, Schneider held shares in Bolivian General Enterprise Limited whose head office was located in London. In 1925, he was instrumental in the creation of Companhia Ferro-Brasileiro, a Brazilian cast-iron producer.

⁴² Archives Schneider, le Creusot, 00 ZZ 0003.08. Letter from Mrs. Schneider, 4 Oct. 1960.

Industrielle de Travaux et d'Etudes using this same perspective. A result of the restructuring of two subsidiaries in 1956, ENSA was in charge of building an oil refinery in Brazil, a fertilizer factory in Egypt, and a nitric acid site in Israel.

Furthermore, these restructuring and rationalization projects continued during the 1950s. The SOGIFI holding in Basel was liquidated in 1950. In compensation, Schneider and Co., which owned all of the securities, received shares from its own group.⁴³ This administrative simplification answered an urgent request from the exchange office.⁴⁴ In 1955, an automobile subsidiary SAVIEM (Société Anonyme de Véhicules Industriels et d'Equipements Mécaniques) came into being, the result of a double capital contribution from Régie Renault and the Latil industrial automobile corporation, which was later to be conglomerated with the Société d'Outillage Mécanique et d'Usinage d'Artillerie (SOMUA). The following year, the mechanics sector was simplified when the company was divided into two parts.⁴⁵ However, concurrently, the company expanded with investments in Société Métallurgique d'Imphy and in Chantiers de France, the biggest shipbuilder in France at the time. This decision to expand reinforced the group's vertical strategy.

Charles Schneider also adopted the French government's political will to ensure the country's independence and maintain its prestige in the area of energy. In 1956, he participated in the foundation of REPGA (Société de Recherche et d'Exploitation de Pétrole et de Gaz/Gas and Oil Research and Development Company) with the help of the group's bank. In addition, the company owned interests in the Pétrofigaz, Forex, and Norafor companies. Charles also favored nuclear energy. Expertise in metallurgy and in nuclear power plant equipment was considered an important asset for investment in this area. In addition, in 1952, the SFAC joined CEA (Atomic Energy Commission) in the construction of nuclear power stations.⁴⁶ After creating a company for research and development in the industrial application of nuclear energy in 1957, SFAC went even further the following year by creating Framatome. Two years later Framatome helped set up a nuclear power plant in Belgium using Westinghouse technology. In fact, the latter had been one of Schneider's partners, since in 1929 the two companies entered into partnership within the Compagnie Le Matériel Electrique SW (for Schneider-Westinghouse).⁴⁷

⁴³ Archives Schneider, le Creusot, 187 AQ 516.5.

⁴⁴ Archives Schneider, le Creusot, 187 AQ 516.5. Letter from Schneider, 31 Jan. 1951. "We have dissolved our Swiss holding, in compliance with your wishes reiterated several times over the past few years."

⁴⁵ Chatillon-Batignolles and H. Ernault-Batignolles.

⁴⁶ Atomic Energy Commission.

⁴⁷ Archives Schneider, le Creusot, 187 AQ 526.4.

The company's relations with the State were ambiguous. "Whether in the field of railway traction with SNCF (French national railway) or in the area of energy with EDF (French National Electric Company) or CEA (Atomic Energy Commission), or in other similar fields, in France, there is only one customer."⁴⁸ Charles criticized this situation and regretted those times when there had been agreements and many customers. The unpaid bills skyrocketed to 3.5 billion francs, mostly the State's responsibility. "Our customers do not pay and because the customer is the State and responsible for this financial situation, we have no recourse to obtain payment... there is no way out, and it is for this reason that so many companies today are going into debt."⁴⁹ Charles deplored this unfortunate state of affairs and reaffirmed that "the solution is in new expansion through exportation."⁵⁰

In 1960, the interests had changed very little from the time when Eugène Schneider was in charge, although they were present to a lesser degree. The holding included stocks of optics companies, precision mechanics firms, automobile manufacturers, and energy producers.⁵¹

Classic Financial Networks

Permanent Financial Needs. When Charles took over the Schneider empire, he confronted considerable financial needs. Indeed, the group's industrial sites were greatly affected by World War II destruction. Reconstruction was costly, especially considering the fact that Charles chose to take advantage of rebuilding to modernize his factories and update maintenance postponed for several years. Consequently, investments multiplied: nearly five billion francs for Le Creusot during the 1950 to 1953 fiscal years.

Before that period, in 1946, 1947, and 1948, the working capital was insufficient. This cash deficit turned out to be costly. Moreover, the steel industry incurred losses (for example, in 1946) because the tariffs were low. As of 1952, the competition created by the CECA difficulties exacerbated the price freeze, which led to "a price slashing frenzy" according to Charles.⁵² Added to this were salary and cost increases.⁵³

⁴⁸ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1958, p. 3.

⁴⁹ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1953, p. 16.

⁵⁰ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1958, p. 9.

⁵¹ Document 2.

⁵² Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1956, p. 5.

⁵³ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1947, p. 2. 46% for the 1946 fiscal year.

This huge need for financing required profit, because the policy of self-financing was still standard practice. The sale of gold (more than 130 kilos [286 pounds] in 1951) provided only a limited substitute. Inasmuch as prices were frozen it was necessary to act on the costs: Charles' great *leitmotiv*. He suggested adapting the American model by improving productivity, limiting stock (seen as money lying idle), and by reducing overhead.⁵⁴ Generally speaking, Charles felt that "the above were to the factory what cholesterol was to the human being. Although cholesterol is not a disease in itself, it can be fatal."⁵⁵

An Unchanged Bank Network. What dealings did Schneider have with banks? During this unusual Reconstruction period, the group benefited from the Marshall plan.⁵⁶ Charles wanted the State "to allocate more credit" especially because the banks were to be state-owned.⁵⁷ This request was reiterated over several fiscal years. In addition, according to Charles, the availability of credit in France was in total opposition to the situation in the United States where credit could be easily obtained at low interest rates.

In banking, too, inheritance takes precedence over innovation. In 1943, following its merger with the Banque des Pays du Nord in Paris, the Union Européenne Industrielle et Financière was included in the category of French investment banks.⁵⁸ At that time, the group held a third of its securities. The bank conducted all the banking transactions and "played an important role in managing, reorganizing and developing new holdings or in creating new business."⁵⁹ In 1957, its securities portfolio represented 53 percent of the assets to which could be added 15 percent for additional securities. It was therefore both a bank and a holding company. The delicate financial situation disappeared after restructuring and this type of short- and middle-term financing was done away with in the 1950s.

⁵⁴ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1949, p. 4. He planned to create a productivity premium.

⁵⁵ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1960, p. 12.

⁵⁶ Jean-Louis Beaucarnot, *Les Schneider, une dynastie* (Paris, 1986), 232. For 1.41 million francs.

⁵⁷ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1947, p. 4.

⁵⁸ In 1920, Eugène Schneider participated in the creation of this bank and holding of which he held 46% of the shares. His main partners were then Banque de l'Union Parisienne and the Empain group.

⁵⁹ Archives Schneider, le Creusot, 01MDL 0002.03. Document 1958. It had one subsidiary, l'Union Africaine Industrielle et Financière. Its interests extended nearly worldwide.

The two brothers inherited a balance sheet with no loan stock.⁶⁰ Reconstruction needs made it necessary to resort to this type of financing. When the financial state of the company was assessed in 1947, the middle- and long-term debt stood at more than 1.7 billion francs, or the equivalent of the capital and reserves, because of four loans issued between 1945 and 1947.

The Shareholders Between the Financial Network and the Human Network. When Charles and his brother were appointed Chief Executive Officers of Schneider and Co., the capital was 100 million francs. Just before restructuring, it was slightly over one billion. The new holding had a 2.61 billion-share capital, and at Charles' death, the capital surpassed 6.5 billion. However, these increasing figures are misleading, and the Schneider family should not be given credit for the group's financing. Indeed, the increase in share capital stems primarily from reserve distribution and from a rise in the stock's nominal value; that is, the holding sustained the family's wealth rather than the contrary!⁶¹ Overall, the shareholders provided only 1.36 billion francs at the time, mostly in September 1958.⁶² Therefore, the shareholders did not provide financial support. Who were they?

Eugène Schneider's death did not provoke a strong reaction on the part of shareholders. His securities went to his wife and his sons. The majority of Schneider and Co.'s shareholders remained anonymous. In fact, in 1942, a nominal list of 111 individuals and legal entities represented the owners of only 11 percent of all securities.⁶³ Of the 26,300 known securities, 6,000 were in the Eugène Schneider estate, 4,000 belonging to the family. Three subsidiaries controlled 6,475 shares whereas the Société La Séquanaise had 2,000. The remaining were distributed among smaller shareholders, such as Louis Renault.

When Charles died, his estate included 7 percent of the holding's securities and the rest of the family had roughly 10 percent of the equity. At the general meeting, one fourth of the company's capital was also posted, dispersed among nearly 2,000 people, none of whom controlled

⁶⁰ Actually, their father took out three loans in 1908, 1912, and 1935, all of which had been repaid by 1942.

⁶¹ From 1942 to 1949, there were no cash shares to apply for. The share applications contributed to financing the group's restructuring, but covered only 60 million of the total 1.59 billion required. Finally, the increase in the holding's capital between 1949 and 1959, 3.9 billion was for the most part (86%) the result of distribution.

⁶² This corresponded to 60 million francs in 1949, and 326 million in 1958, but with a huge issue premium (one 2500-franc share sold at 10,000 francs). The increases in cash capital represented only 6% of the total amount of the new shares.

⁶³ Archives Schneider, le Creusot, 187 AQ 035.2.

more than 0.5 percent of the shares.⁶⁴ There were few foreign holders except for some Swiss investments and the presence of a German bank,⁶⁵ the main shareholder being insurance companies⁶⁶ and, for small investments, some banks.⁶⁷

The Human Network: An Inheritance⁶⁸

Who was Responsible for Establishing this Network: The Schneider Family or Charles Schneider Alone? It can be said that the transition from one Schneider generation to the other was relatively smooth. In addition to his appointment as chief executive officer of Schneider and Co., as of 1943, Charles became a member of the board of directors of the Union Européenne Industrielle et Financière, a bank and holding of the group, and of Charbonnages de Winterslag in Belgium.

The 1949 restructuring allowed Charles to affirm his key role in the company, at the heart of the group's human network. Indeed, he was the only manager of the Schneider and Co. holding. Moreover, he was chair of the board of directors, and also CEO of SFAC, the historical base of his family's empire with about 20,000 employees. Charles was also chair of the board of directors of the public works subsidiary, CITRA, which employed around 5,000 people. The legislation at the time prevented him from being in charge of the third company created by the family, but it was of lesser importance.

Of more importance, Charles played a role in the administration of other large subsidiaries abroad. In 1949, he entered the board of Companhia Siderurgica Belgo-Mineiro in Brazil and became vice president of the Canadian holding, NAUC. In the 1950s, he reinforced his presence abroad by becoming director of coalmines in Helchteren and Zolder (Belgium), the Compagnie Ferro-Brasileiro (Brazil), Sorel Industrie (Canada), and sucreries coloniales. Because financial considerations were becoming increasingly important, Charles was also a member of a number of banks: Banque de l'Union Parisienne, Crédit Lyonnais, and Crédit Foncier Colonial et de Banque.⁶⁹ Therefore, as General de Gaulle rightly

⁶⁴ Archives Schneider, le Creusot, 187 AQ 048.2. UEIF correspondence for the family's securities and general meeting for the others.

⁶⁵ Anlage Gesellschaft für Französische Aktienwerke, MBh, Dusseldorf.

⁶⁶ La Concorde 4973 shares, la Séquanaise 13860, Les Mutuelles Générales de France du Mans 7150.

⁶⁷ Lazard Frères et Cie, Banque Générale Industrielle la Hénin, Banque Hervet.

⁶⁸ Archives Schneider, le Creusot, 01MDL 0002.03. The study is based on a December 1958 booklet that listed "the leaders of the companies within the group." However, Charles Schneider himself was omitted—a noteworthy oversight!

⁶⁹ Archives Schneider, le Creusot, SS 1157.01.

said, Charles Schneider was, indeed, “a pilot of French national activity.”⁷⁰ Also, as a representative symbol of French industry, Charles Schneider was held in high esteem by many countries.⁷¹

Schneider productions were largely earmarked for a particular customer, notably the State. For this reason, it was necessary to have an important political network both in France and abroad. Here, too, Schneider tradition was well established and long-standing. People in high places had visited le Creusot when Eugène Schneider was in charge. Charles maintained this custom when he took over the company. In September 1959, he received General Charles de Gaulle and in 1960, Premier Nikita Khrushchev.⁷² In his New Year’s Day address, Charles often referred to the foreign dignitaries he had met during the year: the Canadian prime minister in 1951, the Brazilian president and cabinet in 1956, and their Peruvian counterparts in 1957. He also spoke of France. In 1959, Charles met with the prime minister, had “a long conversation with the Finance minister,” and discussions with numerous other ministers including the minister of labor.⁷³

Representing heavy industry in France, Charles Schneider made several trips to the United States, notably in 1951 when he attended a conference on productivity and met members of the American equivalent of the CNPF (National Council of French Employers) and of the National Industrialists Association. In 1957, he participated in an international conference of industrialists and economists in San Francisco. Two years later, in France, Charles was appointed chairperson of a new mechanics trade association. However, in refusing political offices, he broke with family tradition.

In light of the above, should one speak of a family network or rather of a Charles Schneider network? It is true that he was his father’s heir and often took over for him. In this sense, one could speak of a family network. Yet, at the same time, Charles single-handedly represented and symbolized the Schneider family.

After his brother’s death, Charles had only one sibling, his sister Marie, who was married to Pierre de Cossé Brissac and had four

⁷⁰ Beaucarnot, *Les Schneider, une dynastie*, 233. Concerning Charles de Gaulle’s visit to le Creusot in 1959.

⁷¹ Named Officer of the Legion of Honor in 1953, he also received other honorific appointments : Commandeur de l’Ordre de Léopold (Belgium), Commandeur de l’Ordre du Cruzeiro du Sul (Brazil) in 1956, Grand Officier de la Couronne de Chêne (Luxembourg) in 1957...

⁷² In keeping with his policy of openness toward communist countries and his opposition to European construction.

⁷³ Archives Schneider, le Creusot, SS 385, Charles Schneider’s address, 1 Jan. 1960, pp. 3-7.

children.⁷⁴ Although, after Eugène Schneider's estrangement from his sons in the 1920s, he worked with his son-in-law, Pierre de Cossé Brissac can also be considered a legacy of the period when Eugène ruled the company. Although de Cossé Brissac continued to work for the group, Charles kept him in the same position without offering him any new responsibilities. In 1958, he was president of Matériel Electrique SW and director of several very important subsidiaries such as ARBED (Aciéries Réunies de Burbach-Eich-Dudelange), Société Métallurgique de Normandie, Forges et Chantiers de la Gironde, Société d'Optique et de Mécanique de Haute Précision.⁷⁵

During Charles' lifetime, his wife did not become involved in the business and his children were too young to assume any responsibilities at.⁷⁶ Outside Charles' immediate family, he had two nephews of working age, but they were not involved in the industrial group, at least not as directors. The family tree did not show Charles' mother's relatives. Consequently, it is difficult to know today whether or not Charles' cousins or more remote family members actually played a role in the group. This seems unlikely, except for Armand de Saint-Sauveur, marquis of Rafélis, undoubtedly Charles' uncle,⁷⁷ and Albert de Boissieu⁷⁸ who were already in the group under Eugène's management.

A Nearly Unchanged Human Network in France and Abroad. As in every limited partnership, Charles Schneider, as sole chief executive officer, had to account for his choices, reporting them to the supervisory board that symbolized the means by which shareholders could have a say in management. Made up of five members, four of whom already held these positions at the beginning of the war, this supervisory board also represented legacy. Because of it, Vice Admiral Lucien Lacase encountered banker Jacques de Neuflyze, but also Henri de Freycinet de Saulces and Marquis Louis Chasseloup Laubat, joined by the marquis and civil mining engineer Thibault de Solages.⁷⁹ During the 1950s, the

⁷⁴ Archives Schneider, le Creusot, 1 I 0005.8. Marie (Zélie Antoinette-Eugénie), born in 1902, married in 1924, had two daughters (born in 1925 and 1939) and two sons (born in 1929 and 1935) with the Comte and later Duc de Brissac.

⁷⁵ He had been director of the company since 1931.

⁷⁶ His son died in 1937 and his daughters (Dominique and Catherine) were born in 1942 and 1944.

⁷⁷ His son Jacques began his career with the group representing the automobile manufacturer Skoda from 1935 to 1939.

⁷⁸ Born in 1896, he left the Department of the Treasury responsible for auditing public books in 1927 to work for Compagnie Générale Transatlantique in 1929 and then UEIF in 1930. Managing director of the Banque des Pays du Nord, he became director of Etablissements Schneider in 1937. His wife's family, de Durfort Civrac de Lorges, was related to the Schneiders.

⁷⁹ Born in 1899, he was director and liquidator of Mines de Carmaux. He directed Air Union, Air Orient, Banque la Hélin, Compagnies d'assurances la Paix, and

supervisory board was renewed; and in 1960, Thibault de Solages was still a member, along with Maurice Polti,⁸⁰ Jean d'Harcourt,⁸¹ Louis Hermite and banker-baron Rodolphe Hottinguer.

In 1949, the three large subsidiaries made available nineteen directory positions that Charles shared with twelve others. Three names appear in each of the two main subsidiaries: Charles Schneider, Maurice Nicolas, and Albert de Boissieu. Ten years later, a four-member works council assisted Charles on a day-to-day basis. At least three of the members were his father's men, and two were relatives, forming Charles' personal bodyguard. This council was comprised of F. Walckenaer,⁸² Armand de Saint-Sauveur, but especially and always Maurice Nicolas,⁸³ who was also executive and sales director. Another important figure was Albert de Boissieu, former student of the prestigious engineering school Ecole Polytechnique and trained as a general auditor, working with the French Treasury. He was responsible for financial management and industrial interests. The company secretary H. Broumische and two department supervisors, H. Treuille for exports and G. Prat for industrial interests assisted these men. The latter was probably one of the employees with the most responsibility. He held eight directorships and three commissioner's positions in 1958.⁸⁴

At the time, Maurice Nicolas sat on the board in nine companies of the group including SFAC and CITRA where he again met Armand de Saint-Sauveur who managed UEIF (Union Européenne Industrielle et Financière) and ARBED. On the other hand, Albert de Boissieu's base was far greater: president of UEIF, director of two of the three large subsidiaries, and also present in NAUC, Charbonnages de Winterslag.⁸⁵ Moreover, he was director of Gaz de France and partner of the large bank, Hottinguer and Co. However, Boissieu was one of Eugène Schneider's

l'Union des Mines. He represented mining, the traditional activity base of the group.

⁸⁰ Lawyer born in 1898, he was also member of the Conseil économique et social, chairman of Association Nationale des sociétés anonymes, director of Philips, and Matériel Electrique SW, a Schneider subsidiary.

⁸¹ Born in 1885, this son of a colonel was a reserve air force general. For the group, he symbolized an important customer and the tradition of arms production.

⁸² Son of a chief mining inspector, this baron was a former student of the prestigious French engineering school, Polytechnique. At the age of 21, he began working for Schneider Establishments and was promoted to director of the Creusot factory that he managed from 1925 to 1933.

⁸³ Born in 1906, this engineer from Polytechnique began his career with aviation companies.

⁸⁴ Director (Matériel Electrique SW, SAVIEM) and commissioner (ARBED, Winterslag).

⁸⁵ SFAC and CITRA.

men, as he already held a seat in UEIF in 1930, and managed Etablissements Schneider in 1938.

Ten directors made up the second circle. Official representative P. Lion covered a large part of the industrial range: from mines to industrial vehicles to metallurgy and steel-making, whereas P. de Maizières specialized in the finance field.⁸⁶

Charles Schneider attached prime importance to his human network and his representation abroad. Therefore, he traveled extensively. For example, he once admitted to having flown more than 60,000 kilometers in 1957 alone: Mexico, Peru, and so on.⁸⁷ This was not really exceptional because in 1951, Charles had traveled to the United States and Canada, countries that he had already visited in the 1940s. In addition, he prospected in India and Ceylon in 1953.

Among the 137 agents of the group listed in 1958, about 20 worked exclusively abroad. Some received only an allocation and most of their activity was confined to one country.⁸⁸ Two of these agents stood out from the rest: J. Ricommard active in six Schneider subsidiaries in Brazil and M. Dhavernas, general agent for Canada and chief executive officer of NAUC and director of its many subsidiaries, and also member of the board of directors in two American subsidiaries of the group.⁸⁹

The twenty people working both in France and abroad doubled the number of Schneider agents. Jean Terray sat on various governing boards across North and South America whereas Armand de Saint-Sauveur limited his activities to Belgium and Luxembourg.⁹⁰ As for Pierre Lion, he was responsible for Europe (Switzerland, Belgium, Austria, Spain) but was also present in Brazil when H. Leboullenger traveled to Canada, the United States, Australia, and England.⁹¹

Of the 137 people in the sample, 50 percent had only one function in the group, often a managerial position with no directorial responsibilities. Twenty-five percent had from two to four different roles. Thirteen people (10 percent of the sample) represented the group at least nine times. Overall, the network reflected a clear hierarchical structure

⁸⁶ Born in 1896, this graduate of Polytechnique was chair of Compagnie Minière du Congo and director of several Schneider subsidiaries (SAVIEM, REPGA, Société Métallurgique de Knutange).

⁸⁷ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1958, p. 4.

⁸⁸ E. Blin was executive director of Scodimex in Mexico. R. Druillet worked in Uruguay and J. Marchandean in Brazil.

⁸⁹ Born in 1907 and after having studied in the United States, this son of the former president of the nickel information center inherited his father's role.

⁹⁰ Born in 1906 and married to Marie de Vogüé, he began his career as a banker and then entered the aviation industry in 1935.

⁹¹ Born in 1892, and after working for Air Liquide (1929-1946) and as foreign trade advisor, this engineer (former graduate of Polytechnique) was assigned to the export department of Schneider and Co. as of 1950.

without an excessive number of participants. Its dependency on the Schneider group took several forms and varied in degree: 45 percent were simple salaried employees, 40 percent were employees with directorial functions for their employer, and only 15 percent were independent. For a certain number of employees, obtaining a managerial position marked the crowning achievement of their career, an award, but in most cases, this promotion was limited to a secondary subsidiary.

Conclusion

In 1939, the Schneider group employed 35,000 people. When Charles died, there were more than 65,000 employees. The total turnover of the group's main subsidiaries combined surpassed 2.2 billion francs. Indeed, Charles appeared to be a man of change: "The real tradition of our firm is to be at the head of progress... As far as the rest is concerned, strategies are habits, routine, which could have been well chosen at the time, but which are now inappropriate."⁹² Did his chosen strategies actually correspond with his claim to be a man of change?

At Charles' death, his life's work was summed up by the phrase "produce, rationalize, export."⁹³ He pursued all the company's traditional activities (steel, metallurgy, and so forth). One of his priorities was financing (reduce the overhead, stock, and production costs), and he held to the self-financing tradition.⁹⁴ A man of his time, Charles was a true organizer, influenced by the American model, constantly rationalizing and restructuring. The 1949 reorganization, which put UEIF and SFAC at the core of the Schneider and Co. group, supports John Scott's hypothesis or that of Meindert Fennema and Huibert Schijf.⁹⁵ The latter believe that interconnections contribute to an oligarchic control structure in which financial companies occupy a central position. If one follows Bearden and Useem's reasoning, Schneider and Co. is a bridge whereas SFAC and CITRIA are the peaks and the secondary subsidiaries the clusters.⁹⁶

⁹² Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1949, pp. 38-39.

⁹³ Archives Schneider, le Creusot, 187 AQ 49.01, p. 2. "Such were, alternately, his concerns."

⁹⁴ Archives Schneider, le Creusot, SS 385, Charles Schneider's address, 1 Jan. 1958, p. 9. "Financial considerations frequently play a fundamental role and it is often because one has succeeded in developing a credit financing mechanism that one can obtain loans."

⁹⁵ John Scott, "Networks of Corporate Power: A Comparative Assessment," *Annual Review of Sociology* 17 (1991): 181-203. Meindert Fennema and Huibert Schijf, "Analysing Interlocking Directorates: Theory and Methods," *Social Networks* 1 (1979): 297-332.

⁹⁶ James Bearden, "The Nature and Extent of Bank Centrality in Corporate Networks," in paper presented to the American Sociological Association meeting, 1975. Michael Useem, *The Inner Circle* (New York, 1984).

In order to avoid having a sole and unique customer, the State, and to successfully rival with competition induced by the CECA, Charles chose to reinforce his efforts to establish business abroad. He was also a tradesman, an exporter: a man of the American continent. However, here, too, he did not innovate but rather developed a strategy initiated by his father. The Schneider empire was truly a multinational group, through its business establishments (in Belgium, Luxembourg, the United States, Canada, Brazil, Peru, Australia) and its accomplishments (Europe: the Netherlands, Portugal, the Soviet Union; Africa: Cameroon, Guinea, Tasmania, the French empire; Asia: Pakistan, India, Ceylon, Indonesia, Iran, China; the Americas: Argentina, Venezuela). Charles was able to adapt to the time in which he lived and implement strategies specific to the period.

Overall, in a fragile and changing age, Charles proved himself a worthy heir to the network legacy. He chose to keep UEIF as the group's bank. This was not an original idea per se, because most of the large industrial groups dealt with one particular bank. Although the shareholders could be viewed as a complete family network,⁹⁷ the directors and leaders of the family represented only a modest and incomplete network. Both confirm the tendency to preserve the existing structure. In his theory, L. Dumont⁹⁸ distinguishes between vertical kinship (parents-children) and horizontal kinship (between brothers). To this we must add Lévi-Strauss' definition of the kinship atom, where he insists on the significant role of kinship through marriage, illustrated by the examples of Armand de Saint-Sauveur and Albert de Boissieu.⁹⁹

If Charles' personal human network was so great, it was largely the work of previous generations. His personal network was smaller than that of his father. Charles glided gently into a new function that presented him with an established network. The latter was not open to him because he belonged to the family; it was the managerial function that he inherited by filiation. Over the course of a half-century, his father had developed the Schneider empire; every network is a social creation. He had established a human network that he gradually renewed. Thus, the network leaders belonged to Charles Schneider's generation. When the Charles took over the group's management, he was about 40 years old. The first circle of directors and leaders (managers, employees, family members) was firmly established. The system was functioning without him, so Charles had to integrate this quasi-network before he could modify it. This initially

⁹⁷ J. A. Barnes, "Genealogies", in A. L. Epstein, *The Craft of Social Anthropology* (New York, 1967), 101-127.

⁹⁸ Louis Dumont, *Introduction à deux théories d'anthropologie sociale* (Paris, 1971).

⁹⁹ Claude Lévy-Strauss, *Les structures élémentaires de la parenté* (Paris, 1949). Claude Lévy-Strauss, "Réflexions sur l'atome de parenté," *Anthropologie structurale 2* (Paris, 1973), 103-135.

placed him in a position of relative weakness. He had to fill in the structural gaps¹⁰⁰ and develop different types of ties.¹⁰¹ Charles worked primarily with his father's trustworthy right-hand men. He modified support only on the fringe. Some engineers who began their careers in the aviation industry could have belonged to Jean Schneider's network.¹⁰²

Actually, Charles was a perfect heir, despite the fact that during the interwar period, the future of the Schneider group was in doubt. He adapted the Schneider group to the time using the human and financial networks created by his father. This demonstrated that networks proved to be quite stable environments at the time; managers and directors frequently devoted their entire careers (30-40 years) to the same group. What is more, the feeling of belonging and solidarity within the Schneider empire was strengthened by the number of former Ecole Polytechnique students who joined the group.¹⁰³ It is now historians' responsibility to develop studies of network temporality and of the differences observed in various industrial activity sectors.¹⁰⁴

Networks constitute a fundamental component of economic and social capital, as defined by Pierre Bourdieu. By inheriting economic capital from his father as well as a managerial role, Charles also inherited the Schneider network's economic capital. Upon his death, continuity needed to be ensured. The family tradition was preserved because the management of the group was entrusted to Charles Schneider's widow and to Albert de Boissieu. Individuals pass on, but the foundation of the network remains.

¹⁰⁰ Ronald S. Burt, *Structural Holes* (Cambridge, Mass., 1992).

¹⁰¹ Mark Granovetter, "The Strength of Weak Ties: A Network Theory Revisited," in *Sociological Theory*, ed. Randall Collins (San Francisco, 1983), 201-233. The author differentiates weak ties from strong ones according to the frequency of their relations, and their purpose.

¹⁰² Such as Jean Terray or Maurice Nicolas. This requires confirmation.

¹⁰³ M. Nicolas, P. Lion, F. Walckenaer.

¹⁰⁴ V. Schneider, "The Structure of Policy Networks," *European Journal of Political Research* 21 (Jan. 1992): 109-129. Based on public policies, the author believes that a corporate network supports the chemical industry, whereas telecommunications combine a pluralistic network and one based on patronage.