CHAPTER 12

CONNECTING THE DOTS: CHANCE AND AGENCY IN PATH DEPENDENCE

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ON THE NIGHT OF JULY 18, 1831, and as an omen of a remarkable life, a new volcanic island, Ferdinandea, emerged from the Mediterranean Sea. On that same night, Johann Martin Schleyer was born, as he remarks in his autobiography. Forty-eight years later, Schleyer, now a Catholic priest in the small town of Litzelstetten in southern Germany, experienced another eventful night: "in a somehow mysterious and mystical way, on a dark night in the rectory of Litzelstetten, near Constance, in the corner room of the second floor overlooking the yard, while I was vividly reflecting on the follies, grievances, afflictions and woes of our time, the whole edifice of my international language suddenly appeared before my spiritual eyes in all its splendor. To pay tribute to the truth, and let her bear witness, I must say that on that night of March 1879, I was very tired; thus I can only proclaim with all gratitude and humility that I owe to my good genius the whole system of the international language Volapük. In March 31, 1879, I set out to compile and write down for the first time the principles of my grammar." (Haupenthal 2005a: 13).

Although he was not then aware –and, confident of his superior intellect, neither did he care much when he found out– Schleyer was not the first visionary to design an artificial, universal language, although his Volapük was the first to obtain a sizable number of users. But his success was not unchallenged. By the time Schleyer decided to apply his genius to the design of an artificial language, a more humble, self-effacing Russian Jew, Ludwig Zamenhof, had already formulated the basics of another new language, Esperanto, which a few years after its introduction in 1889 had practically occluded Volapük. In 1907, however, Zamenhof would face a challenge similar to the one he had leveled at Schleyer, when Couturat, a French philosopher and logician, unveiled yet another international language: Ido. Zamenhof also won this battle, and today Esperanto is still the most popular artificial international language. Thus the late 19th and early 20th centuries witnessed a battle of artificial languages. Although today this contest is scarcely remembered, the debate over artificial languages figured prominently in the intellectual landscape of that time, when

faith in progress plus a more pressing demand to optimize and standardize new technological improvements persuaded many that an invented language could serve as the lingua franca that the increasingly interconnected world plainly needed.

The battle of the artificial languages, in which three main candidates competed to become the standard auxiliary language or second language for all, closely resembles other path-dependence processes that ended with the standardization of one technology at the expense of its rival, such as the triumph of the QWERTY over the Dvorak keyboard (David 1985), the light water design for power reactors over other alternatives (Cowan 1990), VHS over Betamax recording systems (Cusumano, Mylonadis and Rosenbloom 1992), or the alternating current over direct current for electrical supply systems (David 1992). This article is an exploration of the path-dependence literature, and its goal is to offer a more nuanced insight into the role of agency vis-à-vis chance or historical accident in the adoption of a particular technology.

Path-dependence processes can be pictured as what mathematicians call a Polya urn process. We can imagine an urn containing balls of two different colors, red and green. If we randomly pick a ball from the urn, note its color, and return it to the urn accompanied by another ball of the same color, we activate a self-reinforcing mechanism: since the probability of adding a red or green ball to the urn is proportional to the number of red and green balls already in it, once we add a green or red ball, the probability of picking red or green in the next turn will be affected. Mathematically speaking, an indefinite Polya urn process does not make the proportion of red balls in the urn fluctuate ceaselessly and unboundedly; rather, it will settle down to a limit, which might be anything from zero to one hundred per cent. In path-dependence processes, early events (i.e. early draws from the urn, or first adopters' decisions to use one technology instead of the alternative) have a higher leverage than later ones. Although they do not necessarily determine the final outcome, particular sequences of choices made at the initial stages of the process, triggered by small fortuitous events, have a greater influence than later choices. Thus, the greater the success of technology A, the more difficult it is for B to reverse this situation. In later stages of the process switchover becomes practically impossible, and self-reinforcing feedback mechanisms lock in the dominant technology. The technology that prevails is not necessarily the best or the most efficient alternative for those agents that took part in the process, though, since its victory is largely the result of the small fortuitous events that occurred at the earlier stages (David 1985; Arthur 1994: 44-7; Pierson 2000: 253). Path-dependence outcomes are, in short, "neither guaranteed to be efficient, not easily altered, not entirely predictable in advance" (Arthur 1994: 25).

The unpredictability of path-dependence processes, explained by the timing or the stage of the process at which random events take place, engenders multiple equilibria, unlike other areas of the economy where instead of increasing returns, decreasing marginal returns dominate and a unique equilibrium can be predicted. Random or unpredictable as they are, it would be a mistake to depict path-dependence processes as agency-free, since, as Douglass C. North puts it: "At every step along the way there [are choices] —political and economic— that provide (...) real alternatives. Path dependence is a way to narrow conceptually the choice set and link decision making through time" (1990:98-9).

Agency and path dependence are not mutually exclusive. Otherwise, we should expect the promoters of technological alternatives to passively watch how the process unfolds. But they do not. Path-dependence processes leave room for maneuver, and promoters will try to intervene as much as they can by implementing the most suitable strategies they can devise (Cusumano, Mylonadis and Rosenbloom 1992, Arthur 1994: 127-8). The promoter of technology A, for example, might subsidize it by reducing prices below production costs on the hope that this strategy will eventually dislodge alternative B, and make it possible in due course to capture monopoly pay-offs (Arthur and Ruszczynski 1994). Similarly, since early events have a greater weight than later ones, it is strategically advisable to enter the competition as soon as possible. Equally expedient is to discipline expectations among potential adopters as to what the dominant technology will be (Arthur 1994: 128). As David suggests (1992: 134), it is precisely the openness and the possibility of multiple equilibria that are characteristic of path-dependence processes which make strategy and leadership particularly critical. So much so, according to David, that the strategic vision and inner drive of the leaders do much to explain the final outcome of a path-dependence process. As he puts it: "where initial localized positive feedback mechanisms are operative, there the element of 'chance' or 'historical accident' –in the form of idiosyncratic personal perceptions and predilections of the actors, as well as extraneous and transient circumstances surrounding their decision-making at such junctures– is most likely to acquire sufficient power to shape the eventual outcomes" (David 1992: 137).

By unpacking the historical accident element into two different factors —leadership on the one hand, and the unavoidable but always unexpected and random elements of life on the other— Davis is partly mitigating the anxiety problem that path-dependence literature is likely to produce. The problem is as follows: since final outcomes are stochastically related to initial conditions and, consequently, anything might happen as a result of a path dependence process, general law-based explanations of technological developments can be ruled out and ultimately replaced by thick, historical narratives

(Goldstone 1998). Davis' unpacking suggestion partly solves this problem by narrowing down chance, and suggesting that leadership can eventually explain path-dependence outcomes. Davis' stress on leadership as an explanatory factor, though, risks accounting for technological development as an epic narrative, where heroes or titans are engaged in a battle where unexpected events simply happen and self-reinforcing mechanisms capriciously dictate what comes next. Illuminating and enthralling as this kind of narrative may be, one may further refine Davis' approach by taking a step backwards, and try to explain why, in a path-dependence context, the leaders or promoters of a given technology chose a particular strategy instead of an alternative. To this end, the concept of "entrepreneurial imprinting" or "cultural entrepreneurship" (see Boecker 1988 and Johnson 2007, respectively) can be helpful.

Stinchcombe's imprinting hypothesis suggests that at the time of their founding, organizations incorporate elements of their social environment into their strategy and structure, which could explain why surviving organizations that emerged in the same period of time are so alike (Stinchcombe 1965). "Entrepreneurial imprinting" is a somewhat narrower concept. From leadership studies it borrows the idea that entrepreneurs or organizational leaders operate with clues that help them reduce the uncertainty and the complexity of the environment, make sense of the situation, and choose a strategy that seems reasonable. In order to do so, they take stock of mental models that process the information and frame the situation within a familiar pattern that reduces the menu of choices and facilitates the decision-making process. Frames or mental models, however, are not crafted *ex novo* every time a new situation develops. Rather, they are dependent on past experiences (Denzau and North 1994: 4, Nooteboom 2000: 35-51, Bolman and Deal 2008: 3-44, Boin et al 2005: 18-42), and extrapolated to new organizational settings or challenges (Beckman 2006, Boeker 1988, 1989). The concept of "entrepreneurial imprinting" suggests, in short, that strategic choices are dependent on past organizational experiences and affiliations. To express this more elaborately, of all the economic, technological, cultural and political resources available in the environment at the time of the organizational founding, the selection of those that are ultimately incorporated into the organization and, consequently, end up imprinting the organization in a particular fashion, and influencing its future strategy and performance, depends in part on the previous organizational experience and affiliation of the founders.

Now, we only need to connect these dots to set forth the thesis of this article, as follows: the result of a technological contest, in which fortuitous events and feedback mechanisms erode the potential advantage of technical superiority, partly depends on the former

organizational background of the organizational leaders, which can tip the balance towards one path or another. This thesis thus constrains the chance factor in accounts of path-dependence processes, and by focusing on organizational legacies, past experiences and affiliations, it introduces falsifiable hypotheses that can help us move away from purely thick narratives starring epic characters. It is not a radical novel idea, since some accounts of technological battles have hinted at it. In their case study of the contest between Betamax, introduced by Sony, and VHS, sponsored by JVC, for example, the authors claim that the reluctance of Sony to establish partnerships, in keeping with its long-established strategic legacy (Cusumano, Mylonadis and Rosenbloom 1992: 69-70), proved to be critical when demand unexpectedly grew, and JVC —which in the meantime had managed to forge alliances with other producing and distributing companies, was in a much better position to respond to this rapidly growing demand and overcome its rival. The thesis of this article goes beyond mere hints, however, and explores organizational legacies, past experiences and affiliations to assess their value in explaining path-dependence outcomes.

The struggle among the international artificial languages is a particularly apt scenario for conducting such an exploration. Firstly, unlike other technological contests that took place within complex networks that might include engineering, financial, distribution or production partners, the development and marketing of an artificial language does not involve such a large troupe, and thus allows for a more direct exploration of the particular strategies used by the organizational leaders —i.e. Schleyer, Zamenhof, and Couturat. Secondly, and in addition to this relatively sterilized research scenario, we should keep in mind that promoters and supporters of artificial languages comprised a very small subset of the population —i.e. people willing to invest time and effort in the creation a public good, and thus isolated from any kind of outside political pressures or interests, in stark contrast to many other standardization settings (Mattli and Büthe 2003). And lastly, the battle of artificial languages involves two case studies —Volapük vs. Esperanto at the end of 19th C., and Esperanto vs. Ido in the first decades of the next century— and three different organizational strategies by leaders with quite divergent past experiences and organizational affiliations, which lends additional variance to the analysis.

For reasons of time and space, though, this article will explore only the Volapük movement. More precisely, it will attempt to show that the strategy implemented by Schleyer, a Catholic priest, can be explained to a large extent by his affiliation and loyalty to the Catholic Church during the period of the *Kulturkampf,* a bitter conflict that pitted Bismarck against the Pope. The article will try to show that Schleyer's strategy very closely resembled that of his paradigmatic organization, the Catholic Church, which prevented him

from compromising with other members of his movement, and coordinating efforts against its rival Esperanto.

The first mover: Volapük

The fourth of five children, Johann Martin Schleyer, the inventor of Volapük, was born in 1831, in Oberlauda, in the traditionally Catholic principality of Baden, southern Germany. His father was a schoolteacher, as had been his grandfather and great-grandfather. Besides teaching, the priesthood was a vocational tradition on both sides of his family, and Schleyer, apparently against his father's wishes, took holy orders at the age of 25, after spending three years at the University of Freiburg. At Freiburg, and besides theology, and classical languages, Schleyer pursued his interest in poetry and modern languages. Serving as a vicar and in other subordinate positions in different locations for eleven years, Schleyer befriended the writer Alexander Kaufmann and his wife Mathilde (aka Amara George), a Catholic poet; and began a correspondence with Countess Ida von Hahn-Hahn, also a relatively popular writer who had converted to Catholicism in her middle age. In 1862 he was given his own parish in Krumbach bei Messkirch, in the same Baden region, where he published Catholic and patriotic verse, and obtained a reputation in literary circles.

The unification of Germany in 1871, and the subsequent *Kulturkampf,* or culture war, waged by Bismarck against the Catholic Church, ushered in the most difficult years of Schleyer's life. The *Kulturkampf* first broke out in the Baden region, and in the town of Messkirch, where Schleyer was serving, it became particularly turbulent, since it was the heart of the Old Catholics movement, a schismatic group of liberal-leaning Catholics who opposed the pontificate of Pius IX (Gall 1965: 153, Gröber 1912). As a result of his quarrels with the Old Catholics, Schleyer was sued and sent to prison. Just before serving his four-month sentence, Schleyer visited Rome and conferred with Pius IX, who granted him permission to publish *Sionsharfe*, a journal of Catholic poetry. After his release from prison, Schleyer was sent to the more peaceful Litzelstetten, a small parish of 250 souls. In 1879, three years after his arrival in Litzelstetten, during the sleepless night mentioned in the introduction, Schleyer had the mysterious and somewhat mystical experience in which he first conceive of the Volapük language[1].

But Schleyer was not the first person to invent an artificial language. The idea of creating an artificial language, free from of the irregularities and inconsistencies of natural languages, had long been current, and particularly in the midst of the scientific revolution of the 17th century, when many people thought that the construction of a regular and logical language,

[1] The biographical data of Schleyer is from Schleyer ([1880] 2008), Spielmann (1887: 11-15), Sleumer (1914 [1981]), and Haupenthal (2005b, 2005c, 2007). On the Old Catholic movement in Messkirch, see Gröber (1912).

able to render a perfect representation of the world and thus be particularly suitable for philosophical research as well as international communication, was not only feasible, but necessary. To this end, in 1661 Dalgarno published his *Art of Signs*. In 1668, John Wilkins, his former collaborator and one the founding fathers of the Royal Society, sent to print his more elaborate rival project. Meanwhile, the best minds of this period, Newton and Leibnitz, also each sketched their own international language projects, which attests to the value that was then placed on this intellectual pursuit[2].

When Schleyer devised his own scheme, however, he knew nothing of his forerunners. Nor did he feel compelled to examine their work when he was made aware of them. He was more concerned with remaining original (Sleumer [1914] 1981: 20). Also, he believed that he had outwitted Leibnitz, Wilkins and all his other forerunners (Schleyer 1885: 1). He certainly had good reasons to feel this way. Eluding the oblivion to which its dozens of predecessors has been consigned, Volapük was the first artificial language to obtain wide recognition from an interested public, to assemble a community of committed Volapük speakers, and to have its own international social movement. And this unprecedented success was reached very quickly. Only nine years after publication of the first scheme of the language in *Sionsharfe*, there were fifteen Volapük journals and 257 clubs all over the world, from Europe to America and from China to Australia. In some European countries, the language was taught in public schools, business schools, and universities, and a new profession, *Volapükatidel* or teacher of Volapük, was created. Schleyer, the priest of a tiny village in southern Germany, became an international celebrity[3].

[2] On Dalgarno's, Leibniz's and Newton's projects, see Craam and Maat (2001), Pombo (1987), and Elliott (1957). For a general overview of the universal language projects of the 17th C., see Maat (2004), Large (1985: 19-42), Eco (1995: 209-52).

[3] On the strength of Volapük in 1888, see Kniele ([1889] 1989), and Schmidt (1996: 8-13).

International disglossia and the demand for an artificial language

Two reasons suggest themselves to explain the success of Volapük. First, it was introduced during the first wave of globalization, a time period that drastically changed the social and economic fabric of human societies (see. i.e., Bordo, Taylor and Williamson 2003). To begin with, new developments in transportation and communication technologies (i.e. railways, steamships, the telegraph, and telephones) abolished the tyranny of distance, cut freight costs and fostered an increase in international trade. Thus, from 1870 to 1913, European international trade at current values increased by 294% (Daudin, Morys and O'Rourke 2010). Also contributing to this unprecedented expansion of international trade in this period was the state of relative peace among the great European powers, and the adoption of the gold standard. International migration was also of paramount importance. Whereas in the first three decades of the second half of the 19th century an average of 300,000 Europeans per

year emigrated to other continents, at the turn of the century the number exceed one million (O'Rourke and Williamson 1999:119).

A more interconnected world brought new challenges, which called for broader cooperation and new international bodies. Thus, the International Telegraph Union was established in 1865, and nine years later the Universal Postal Union was set up. Likewise, in 1884, the International Meridian Conference, held in Washington, DC, agreed to establish standard coordinates and time zones. However, cooperation at the international level was neither confined to the field of communications or trade agreements, nor exclusively championed by public actors. The year 1863 witnessed the creation of the International Committee for Relief to the Wounded in Geneva, which paved the way for the signing of the first Geneva Convention a year later, and the founding of the Red Cross in 1876. Meanwhile, the trade unions had already established their First International, also in Geneva (1866), and after the success of the Parisian World Fair in 1867, such fairs were held regularly, enabling participating countries to show off their scientific and technical talents. Another arena for international competition was the modern Olympic Games, first staged in 1896, and the Nobel Prizes were instituted in 1901. In addition to these well-known examples more than three hundred international organizations flourished in this period (UAI 1957), and the number of international conferences escalated from a mere 20 in the 1850s to 1,062 in the first decade of the 20th century (Shenton 1933:27). Referring to the second wave of globalization in the late 20th century and in a bid to explain the ultimate success of English as a global language, Crystal claims that "There has never been a time when so many nations were needing to talk to each other so much. There has never been a time when so many people wished to travel to so many places. There has never been such a strain placed on the conventional resources of translating and interpreting (Crystal 1997:12).

The above paragraphs also suggest that people living the last quarter of the 19th century were in a quite similar predicament. However, there was an important difference. While in the last decades of the 20th century there was a common expectation for English to be the language of international communication, a hundred years earlier this was not the case. Although French had been able to retain its prestige as the language of diplomacy, in the last quarter of the 19th century it was already losing ground to English. The erosion of French in the international arena was perhaps more noticeable in the field of trade and commerce, as well as in science, where, in contrast to the 18th century, when the Royal Academies of Berlin, St. Petersburg and Turin had adopted French as their official language, German was about to surpass it and become the leading language of science (Large 1985: 44; Wright 2006). Thus the international scenario of the late 19th century was disglossic,

with French still holding a privileged position in diplomacy and international politics, English becoming more in important commerce, and German prevailing in science. To summarize, this unstable international linguistic regime and the conviction that national rivalries would prevent an international agreement granting any national language the status of lingua franca opened a window of opportunity for those committed to the idea that an artificial international language could fill the gap.

Second, the appearance of a seemingly endless number of technological advances in all spheres of social life reinforced the faith in progress, and the idea that the forces of nature could be harnessed and put into work for the benefit of mankind. Evidence of this belief was found in the new genre of science fiction (e.g. Jules Verne), as well as of a thriving utopian literature that focused on technological progress, which was either extolled or blamed for ushering in a hostile and inhuman mechanized world[4]. In order to facilitate the advancement and implementation of new technologies, however, it was often necessary to standardize procedures and routines. For this purpose, in 1875 the International Bureau of Weights and Measures was established. Six years later another international body was created to promote uniform standards for railways, and similar initiatives were introduced in pharmaceuticals, cataloging and bibliographical systems, cartography, technical drawing, etc. (UIA 1957: 5-11). This *élan* for simplification, rationalization and standardization was also responsible for the rise of scientific management, as well as new trends in the arts, especially in architecture, with the triumph of modernism (Guillén 2006). And languages were also touched by this trend.

Though languages were "natural," the rationalizing and scientific spirit of the age led people to believe that they could also be the target of purposeful intervention, and be simplified, improved or standardized. Spelling reforms, intended to match spelling and pronunciation as a means of transcending class and regional differences were widely discussed in France, the United States, Germany, and Portugal (March 1893: 57-59; Staller 1994: 343-4, and Zúquete 2008: 496). And in the last quarter of the 19th century, budding nationalist movements, such as the Basque, Occitan, Catalan, Czech and Russyn, set about standardizing their languages for service as markers of new political identities (Hobsbawm 1996, 1990: 93-100)[5].

It is in this context that the idea of creating an international, artificial language was considered by many as not only a sensible endeavor, but also one whose success was practically preordained. As Herbert Spencer put it: "it is quite possible (...) that the time will come when all existing languages will be recognized as so imperfect, that an artificial language to be universally used will be agreed upon" (1904: vol. 1, p. 247); or to quote

[4] Edward Bellamy's utopian *Looking Backward, 2000-1887*, for example, had sold more than a million copies in America and the United Kingdom ten year after its publication in 1888 (MacDonald 2003: 18). Less successful, but also quite popular, were Morris's *News from Nowhere* (1890), Howell's *A Traveller from Altruria* (1894), or H. G. Wells's *A Modern Utopia* (1905). According to data gathered by Sargent (1988), from 1880 to 1900 a total of 363 utopias were published in the United States and the United Kingdom. For a review of the utopian literature of this period, see Goodwin (1978).

[5] For a case-by-case description of the invention of new national languages, see Fodor and Hagège (1983).

from Nietzsche's *Human, All Too Human:* "in some far-off future time everyone will know a new language, a language of commerce at first, then a language of intellectual intercourse generally, and this as surely as there will one day be aerial navigation." ([1878] 1984: 64).

Volapük: A short and troubled life

In 1879, a year after Nietzsche's book went to press, Schleyer published the first drafts of his project, both in two pedagogical journals and his *Sionsharfe*, and the following year he published the first Volapük handbook in the German language (Schleyer [1880] 1982). His project of devising an international language was not worked out in straightforward manner, however. First he developed an international phonetic alphabet that allowed words in every language to be phonetically transliterated and understood by both native and non-native speakers. This alphabet would prevent German people from writing "Eiauä", for example, when they wanted to send a letter to Iowa. If they were unable to spell "Iowa" in English, they could use the new international alphabet and write "Aioua" instead. He was hopeful that the Universal Postal Union would adopt his "World Alphabet", and to this end submitted his manuscript to the headquarters of the German postal administration. In 1878, the Universal Postal Union kindly published his proposal in its official journal, but that was end of the story[6].

His idea of a world alphabet was not much different from the other spelling reform projects that were then under discussion in several countries, as noted above. The chief difference was that his reform was not intended to be applied to a single national language, but focused instead on the ways the same sounds were represented by different languages. Now he had a spelling reform, but not a unique language upon which this reform could be tested, so it was only natural for him to consider creating such a language, which was the idea that seized his mind on that memorable and sleepless night of March 31, 1879, when the entire edifice of the language took shape[7].

Apparently, Schleyer began his edifice with the grammar. Like German, Volapük had four cases: nominative, accusative, dative and genitive, which were denoted by vowels at the end of words. Vowels could also be used to form compound words, such as *Volapük* (*vol* from world, *a* for the genitive case, and *pük* from speak), meaning "the language of the world." Regarding verbal forms, there was only one conjugation, and tense, person and voice were indicated by specific particles at the end or beginning of the infinitive. If löf means "love," for example, *löfob, älöfob, elöfob, ilöfob, olöfob* and *ülöfob* mean "I love," "I loved," "I have loved," "I had loved," "I will love," and "I will have loved," respectively. Since

[6] By then some linguists were also working on an international phonetic alphabet. Their collaboration led to the creation of the International Phonetic Association in 1886 (MacMahon 1986).

[7] Schleyer was not the first one to made the leap from the idea of creating a new alphabet to designing a new language that could clothe that alphabet. Dalgarnos' universal language and well as Herbert Spencer's scheme followed the same pattern, although their alphabets were not phonetic (Cram and Maat 2001: 9, and Spencer 1904: vol. 2, pp. 247 and 617-21).

prefixes and suffixes were used to denote grammatical functions, root words had to be easily identified in the final shape of constructed words. To allow for this, Schleyer decided that root words should begin and end with a consonant, so that prefixes ended and suffixes began with a vowel. Given that root words had to begin and end with a consonant, and that the alphabet had only 19 consonants and eight vowels (a, ä, e, i, o, ö, u, ü), the problem of coining a word often posed a combinatorial challenge, which became more constraining with two additional rules: that words had to be short, and preferably derived from English. Thus *pük* was chosen because there was already a pik word (de Wahl [1930] 1950: 20). To spare the reader from too many particulars, suffice the following as a sample of the language: "*beatik binoms, kels klödoms*" which means "blessed are those who believe"[8].

Blessed or not, Volapük never lacked believers. The first were the readers and collaborators of *Sionharfe*, mainly southern German Catholics interested in poetry[9]. The first separate brochure of Volapük grammar and vocabulary included an invitation to send a short text in the new language in order to obtain a certificate or diploma that automatically granted membership in the movement. The official diploma included an outline of the bylaws of the movement that Schleyer intended to found in order to promote his language. These bylaws clearly indicated that the movement was not going to operate in accordance with democratic principles. Article 7 stated that the supreme leader of the movement was Schleyer, and Articles 16 and 17 provided that decisions reached by majority vote required that the leader himself also voted with the majority, thus Schleyer assured himself of veto power from the outset[10].

In its first years, and much to even Schleyer's surprise, the movement gained strength quite rapidly. By 1883, Schleyer's textbook, already in its fourth edition, had been translated into ten languages. Volapükist clubs sprang up in Germany, the Netherlands, Sweden, and Austria, and in addition to the *Weltsprache-Volapükabled* journal founded by Schleyer in 1880, two other Volapükist periodicals emerged in Breslau and Rotterdam. Volapük enthusiasts in Germany and abroad organized public conferences in educational and professional settings, and by May 1884 seven general assemblies, mostly of Germans enthusiasts, had taken place. This activity did not go unnoticed, and local and foreign newspapers began reporting about Volapük, some to praise, and other to mock it. More media attention was obtained by the first Congress, held in 1884 in Friedrichshafen am Bodensee, a municipality not far from Schleyer's home town. At this congress, the movement adopted an official emblem and an anthem. More importantly, the Congress approved the publication of an official journal that would stamp the names of those who were going to hold official positions in the movement. A first detailed account of the formal hierarchy was

[8] This example and the description of the language come from Linderfelt (1888).

[9] For the esthetic mission of Sionsharfe, see Eble (2008)

[10] A reprint of the official diploma is included in Schleyer ([1880] 1982).

also approved. At the top of the hierarchy were the national leaders, while the next rank was reserved for the world language instructors, followed by local leaders, with rank and file supporters at the bottom. Towering above them all was Schleyer, who named himself leader for life, and Rupert Kniele as his eventual successor, a decision that did not please everyone, as Schleyer intimated in his diary (Haupenthal 1984: 88).

A Second Congress took place in 1887 in Munich. It was organized by the local association of that city, which, along with the Nuremberg club, was one of the two strongholds of the movement –and the breeding ground of problems to come. By that year the number of Volapükists had increased substantially, and it included more than a hundred certified world teachers. Local organizations had been established in France, the Netherlands, Belgium, the United States, Great Britain, Spain, Portugal and Italy (Kniele [1889] 1989: 37). While the rapid spread of the language was encouraging, problems soon appeared on the horizon. Firstly, the very success of Volapük encouraged others, equally concerned about the problem of international communication, to develop their own alternative languages. Thus Weltsprache was launched in 1883, followed by the Langue International Néo-latine, and Pasilingua in 1885[11]. The first two of these failed to gain public attention, but Pasilingua elicited some interest (Spielmann 1887: 44). Secondly, and more important, the growing number of Volapük speakers signified an even larger increase in the number of proposals for reforming the language. Especially pertinent were those advocated by Auguste Kerckhoffs, a German language teacher at the École des Hautes Études Commerciales in Paris[12].

Kerckhoffs was to play a key role in the history and collapse of the movement. Two years before the Second Congress, and mirroring the *Association nationale pour la propagation de la langue française* (later renamed the Alliance Française), Kerckhoffs had set up the *Association française pour la propagation du Volapük* (Kerckhoffs 1887). In the same year, 1885, Kerckhoffs launched *Le Volapük*, a monthly periodical, as well as his *Langue Commerciale International. Cours complet de Volapük.* In 1886 he also published a *Grammaire abregées de Volapük.* The translation of his Cours into English (in 1887), Italian (1887), Portuguese (1888), Russian (1886), Dutch (1886), Spanish (1885), and German (1880), made Kerckhoffs a prominent figure in the movement –and a rival to Schleyer's leadership[13]. Kerckhoffs' first encounter with artificial languages was not with Volapük, however. Before learning it, he had published *La Cryptographie militaire* (1883), a pamphlet that analyzed the secret codes used by the military[14]. In addition, Kerckhoffs had become familiar with the musical language of Sudre, a bizarre universal language invented in the 1830s, since it could also be used for military purposes (Drezen [1931] 1991: 144)[15].

[11] For a description of these projects, see Couturat and Leau ([1903] 2001: 262-930, and Drezen ([1931] 1991: 234-6).

[12] For a biography of Kerckhoffs, see Caraco (1998).

[13] *See Rund um die Welt*, December 16, 1889, p. 1.

[14] First published in 1883 in two separate articles of the *Journal des sciences militaries*. Available at http://www.petitcolas.net/fabien/kerckhoffs/. See also Staller (1994: 331).

[15] Regarding the Sudre language, in 1886 he published an *Examen critique de la Langue Musicale Universelle*, Paris: Soudier. For a description of the Sudre language see Langer (1985: 60-3).

Kerckhoffs saw Volapük as a code system, where simple rules, in the form of the one-to-one functions that governed cryptographic systems, would render a precise and unambiguous translation between the natural and the artificial language. In this respect his approach differed from Schleyer's. Whereas the latter was confident that the complexity of his language made room to the smallest nuances and subtleties of human cognition, Kerckhoffs contended that this very complexity could ruin the language and the movement. Rather than perfect coverage and ornamentation, his goals were simplicity and practicality (Couturat and Leau ([1903] 2001:143). To this end, Kerckhoffs had already introduced some simplifications in the language in the first edition of his *Cours*, adding more in subsequent editions. Among them was the elimination of four tenses from the conditional, and also of the genitive and dative suffixes, which he replaced with prepositions. He also set new rules for word formation (Couturat and Leau ([1903] 2001:142-6). In 1887, when the Second Congress was to took place, Kerckhoffs summarized his proposals in *Examen critique des simplifications qu'il y a introduire dans le Volapük.* These not-so-minor changes distressed Schleyer as well as many other Volapükists, since no matter how helpful or appropriate they might be, they surely had the potential to jeopardize the integrity of the language and the movement.

Lastly, further uncertainty arose from the announcement by the American Philosophical Society that it planned to set up a committee to conduct a thorough evaluation of the language, compare it with other proposals, such as *Pasilingua*, and issue a report on its suitability as a international language. Even after the renowned linguist and anthropologist Max Müller publicly endorsed Volapük (Kniele [1889] 1989: 32), it had many doubters and detractors, which made the decision of the American Philosophical Society to jump into the fray somewhat alarming.

Some concerns about the future of the language, emerging from both inside and outside the movement, were present, thus, when the Second Congress convened. To address them, and to secure the integrity of the language, it was decided to establish a Language Academy, following the example of the *Académie Française*. Seventeen reputed Volapükists from ten different countries were elected to its governing board, among them Kerckhoffs, who was to preside. Expecting opposition from other Volapükists, Kerckhoffs accepted this position only after he was allowed to name seven Volapükists of his choice to serve on the Academy board. For the sake of international cohesion, the delegates agreed to set up a World Organization of Volapükists, which would also be responsible for funding the Academy. Schleyer was given the right to veto the decisions made by both the Academy and the World Organization.

The World Organization never materialized. The initiative to set it up came from the Munich club (*Rund um die Welt*, April 30, 1888, p. 42-4), notoriously inclined to reform the language, and, consequently, suspicious to Schleyer's eyes. In contrast, the Academy became operative as soon as the Second Congress was concluded, although it lacked a physical location, and its members worked by correspondence. The deliberations of the Academy members, published in *Le Volapük*, made many people aware that the approval of some of the proposals could change the language drastically. And although the Academy never did approve substantial alterations, its activities brought no joy to Schleyer or the more conservative Volapükists.

A third congress was scheduled for 1889 in Paris, the site of the next Universal Exhibition. In the two-year lapse between the second and the third congress, the movement continued to expand, peaking in 1888 with 253 local clubs, fourteen journals, and almost 900 certified teachers (Kniele [1889] 1989: 69; Schmidt ([1964] 1986: 13-16). But as the membership swelled, problems were piling up even faster.

In the first place, these two years saw the emergence of a new batch of artificial language projects. In addition to Pasilingua, which was still clamoring for attention (Steiner 1888, Mallon 1888), Bopal (St. de Max 1887), Spelin (Bauer 1887), Myrana (Stempfl 1888 and 1889), Kosmos (Lauda 1888), and Lingvo Internacia, latter called Esperanto (Zahmenhof 1887) joined the contest. The developers of Bopal and Spelin were former Volapükists, and their projects were quite reminiscent of Schleyer's. Myrana was not intended as a serious candidate, but was more an outline of the principles that should guide the creation of an international language, which, according to its proponent, should basically serve commercial purposes. Like Volapük, Kosmos was a inflectional language, but based on Latin. Zamenhof's Lingvo Internacia was less inflectional than earlier projects, and shared many principles with Pasilingua, particularly with regard to vocabulary construction[16]. For the Volapükists this unending parade of new artificial language projects was a source not only of anxiety, but also embarrassment, since by attempting to resolve the Tower of Babel problem, a new Babel of hopeless artificial languages has been created, as not few a people were only too happy to point out.

Secondly, the report on "The Scientific Value of Volapük" by the American Philosophical Society (APS) was finally issued, with devastating conclusions. The Society conceded that an international language was necessary, especially for scientific communications, which were then vitiated by nationalist sentiments and linguistic chauvinism. While an artificial, auxiliary language could serve this purpose, the Society concluded that it could not be Volapük, since it was too inflectional, and its vocabulary unrecognizable. A suitable artificial

[16] For a description of the first four projects, see Couturat and Leau ([1903] 2001: 168-9; 70-80; 401-8 and 373-9, respectively). Flexional languages use word endings to mark grammatical functions, while non-flexional languages prefer stricter word order rules and prepositions for the same purpose. Following Wilhelm von Humboldt's theory of language, it was a still common in 19th C. to regard inflectional languages as superior, or positioned at a higher level of language evolution. Current linguistic theory does not support this claim (Moreno Cabrera 2000: 90-7).

language, according to the APS, should have a non-inflectional grammar, similar to that of English and most of the Romance languages, as well as a recognizable "Aryan lexicon," i.e. a vocabulary naturally derived from the roots of the Indo-European languages. These recommendations seemed to favor Esperanto and Pasilingua. In a supplementary report these two languages were also scrutinized, although they neither were given a formal endorsement. The Society held that an artificial language should not be the work of a single person, but that an international committee of experts would be in a better position to create such a language, and, perhaps even more importantly, to gain its international recognition and acceptance. A universal language, in short, should be created, agreed upon and launched in the same manner as most other international standards in the past had been. To this end the APS invited other learned societies to join in these efforts and to create a new international committee (APS 1888).

But the learned societies showed little interest in the Society's proposal, especially after the Philological Society of London published a detailed refutation of the American report[17]. According to the Philological Society, the flaws in Volapük's grammar and vocabulary that the Americans had pointed out were minor ones, and the report had been based on misconceptions and a bias in favor of inflectional languages. Though it was not perfect, the Philological Society found Volapük was good enough to serve as an international, auxiliary language. However, and much to the chagrin of Volapükists, the Philological Society regarded Spelin as better than Volapük, and it alleged that if the latter had been launched first, it would have been "far more widely accepted, and have become, as its name implies, the All-language" (Ellis 1888: 90-1). Consequently, and although the Philological Society concluded its report with a ringing "*lifomös Volapük*, long live Volapük!", this was less due to its inherent qualities as its relative advantage over the Spelin in terms of positive network dynamics. Since Volapük had "the ear of the public and is in possession of a vast organization highly interested in propagating it," expediency counseled its support (Ellis 1888: 97). The Philological Society, in short, had served to counter the conclusions of the Americans, but for reasons that Volapükists were not eager to hear.

[17] More precisely, the American Association for the Advancement of Science, the Massachusetts Institute of Technology, and some other American universities backed the APS proposal, but the responses from the other side of the Atlantic were less encouraging (APS 1889).

Thirdly, whereas the American and British London societies disagreed about the qualities of Volapük vis-à-vis other projects, at least they agreed that an artificial language was possible. This was not the opinion of German linguistics, though. In keeping with the Romantic tradition of Fichte (1762-1814), Herder (1744-1803) and Wilhelm von Humboldt (1767-1835), regarded as the father of linguistics, German scholars conceived of languages as living organisms, a metaphor that became further entrenched in the second half of the 19th century with the incorporation of Darwinist ideas in Indo-Germanic studies and

comparative linguistics (e.g. Schleicher [1876] 1974). According to the "language as organism" metaphor, every language has its own "inner spirit", which evolves hand in hand with the genius or *Geist* of the nation who speaks it. Language and nation are thus two different manifestations of the same phenomenon, emerging from the *Volkgeist*. Languages, according to this view, are involved in an endless struggle for survival. They might conquer or be conquered, they might die and disappear without a trace, or leave behind them the healthy offspring of new languages. But they cannot be devised a *priori* (Formigari 2004: 144-6).

From this viewpoint, a universal, artificial language project is at best a manifestation of anti-patriotic sentiments (Hamel 1889). At worst, it is a token of ignorance, or of the foolishness of the dilettante who likes to fancy that anything is possible in the sphere of language. The very notion of an artificial language, in keeping with this critique, is an oxymoron, a contradiction in terms. By definition, an international, artificial language must lack a *Geist*. As the language of everybody, a universal language would be the language of nobody, a bastard with no future, a body with no blood in its veins, a "homunculus", to use the contemporary buzzword. Although this denial of the very possibility of an artificial language had its rebuttal (see, Schuchardt 1888, 1894), the attack launched by the *Herren Linguistik Professoren*, (Müller 1888, Ziemer 1888, Meyer [1893] 1976) had a negative impact not only on the Volapük movement, but also later on other projects, and particularly Esperanto (see Diels 1906, Brugmann and Leskien 1907: 28-9, and the rebuttals of Pietzker 1889 and De Courtenay [1907] 1976, and Pulgram 1948).

Far from helping the Volapük movement cope with its internal conflicts, the concurrence of competing language projects, and the interference of scientific societies and *Professoren* only exacerbated them. While conservatives took these external developments as evidence of the need to rally around the language as it was, instead of tinkering with it, no matter how well-intentioned or expedient the proposed reforms might be, the reformists defended the opposite position. For them, the exposition of the language to the critique of outside scholars, and the publication of rival projects only lent a new urgency to pass the reforms that would give the language its definitive shape. These opposing views manifested drastically in 1888, a year before the third congress, when an open battle between the reformists and conservatives in Munich led to a split into two contending Volapük associations. Elsewhere in Germany and abroad, Volapük associations underwent similar conflicts.

External pressure and internal struggles had a self-reinforcing effect that made the future of the movement look less bright than many liked to think. There was a wave of defections by rank and file members and even some more prominent Volapükists, such as Julius Lott,

a former leader of the movement in Austria, proposed rival language projects (e.g. Lott 1888 and 1890). Others took even more radical positions: under the leadership of Leopold Einstein (no relation to Albert), members of the Nuremberg Volapükist club shook the Volapük world by switching their allegiance to a new project, Lingvo Internacia, which was to become Esperanto (Kniele [1889] 1989: 77, Drezen [1931] 1991: 173-4, Schmidt [1964] 1986: 16-7, Löw 1891: 193-6; Sikosek 2005). These skirmishes were sometimes played out in public exchanges where scathing personal remarks and mutual accusations of treason were common. Thus Kniele did not hesitate to cite Einstein's Jewishness to explain the latter's "apostasy". (Kniele 1890: 3 and 5)[18]. Schleyer, afraid of losing control of the movement, and in order set the stage of the upcoming Congress, summoned his followers in May 1888. The conclusion of this meeting, published immediately in *Volapük zenodik*, was a straightforward *ipse dixit*: "Any resolution of the Academy not accepted by the Inventor is null and void, even if the whole of the membership should unite against the Inventor" (Ellis 1888: 66, see also Barandovská-Frank 2002: 6).

The third Congress finally took place in August, 1889. It was the best-attended ever, and the first to use Volapük as an official language, much to the self-satisfaction of the delegates. But their complacence did not disguise the difficult situation that they faced and the need to aside their differences and forestall outright collision between reformists and conservatives, i.e. between the Academy and Schleyer. In order to satisfy both parties, the Congress agreed that every resolution made by the Academy should be submitted to Schleyer's approval. If this were not forthcoming, there would be further discussion and a second vote by the Academy. If it obtained two thirds of the votes, then Schleyer's veto would be overturned. Thus Schleyer, who had refused to attend the Congress, kept his position as the most powerful member of the movement, but effectively lost his veto power (Sprage 1889, Rosenberg 1903: 277-82, *Rund um die Welt*, August 15 - September 1, 1889: 145-50). This was unacceptable to him. He claimed Volapük as his intellectual property, officially rejected the authority of the Academy, and established a new one that was restricted to his most loyal supporters (Rosenberg 1902: 282). Schleyer and the reformists parted ways.

Now freed from Schelyer's rule, Kerckhoffs put the Academy to work at speed to give the language its final shape and to keep other projects, and especially Esperanto, from gaining ground. Immediately following the Congress, he sent his reform proposal to Academy members, and ordered them to discuss it with the societies of the countries they represented. But instead of clear answers, he received nine other reform proposals. Weary, he resigned in July 1890. For the next three years, the Academy remained idle, for their

[18] Concerns about the apparent anti-Semitism of Schleyer and his closest associates arose in the movement since in his German-Volapük dictionary Schleyer introduced the verb "yudanön," for "acting like a Jew." Kerckshoff severely criticized this, and said the word "should be expelled from the language" (Einstein 1889: 14fn). If aside from the ominous coinage of "yudanön" there are no other anti-Semitic remarks in Schelyer's work, his anti-Gypsy leaanings were manifest. In his 1912 brochure *Ein Idealvolk*, presenting his utopian vision of society, Schleyer remarked that "Gypsy people should be either subdued and converted, or otherwise sent back to their land" (1912: 24).

members could not agree on a new director. In 1893, Woldemar Rosenberg, the leader of the movement in Moscow, was chosen for the position. As soon as he took office, Rosenberg changed the decision-making process. Instead of asking Academy members to discuss the proposed reforms with rank-and-file Volapükists, he restricted the decision-making power to Academy members. This move deprived grass root supporters of all influence in the final shape of the language. However, at that point their number had shrunk considerably. In February, 1892, the general assembly of the local organization in Vienna, which published the influential *Rund um die Welt* journal, decided to discontinue all activities (*Rund um die Welt*, February 1 - March 15, pp: 359-64), and many other local clubs had already disbanded, their members disillusioned by the lack of tangible results forthcoming from the Academy. They had volunteered to learn, teach and spread an artificial language, and there was not much to do if such a language remained under construction. Some of them returned to Schleyer's flock, and a few changed their allegiance to Esperanto, but the majority simply gave up. For Schleyer's side, the betrayal and departure of Kerckhoffs and like-minded reformists was a relief, and he took it as opportunity for a purge and a strengthening of the movement's organizational muscle, in keeping with the strict hierarchical principles he had imposed at its inception. The purge was easily achieved –he simply deleted the names of the troublemakers from the list of Volapükists published in the official journal. Schleyer could not conceive of any different course of action: "Christianity is better than my discovery, and there too there were conflicts. The apostles disputed about whom among them was best qualified. And then came Jesus who settled the quarrel" (*Rund um die Welt*, December 16, 1890: 283-4).

Schleyer set out to perfect the organization's pyramid-like structure with a more detailed distribution of the privileges and responsibilities corresponding to each hierarchical level. At the lowest rung were the students or *julans*, who could correspond with other Volapükists (as *spodels*), and/or join a local club in an informal basis (as *kopanels*). Full membership in the movement, however, could be only obtained by earning a diploma in the language. Graduate Volapükists could correspond with other members (as *spodals*), and compete for leadership positions in their clubs in their new capacity as *kopanals*. On the rung above club leaders *(cifs)* were the regional or national *(cifels)*, and federal-level leaders *(lecifs)*. The position of continental leader, or *lecifel*, was also defined, although it was never filled. Similarly, there was also a hierarchy among language instructor positions that included club instructors *(tidels)*, city instructors *(löpitidels)*, and country level "professors" or plofeds. The officials responsible for granting teaching certificates were the *xamels*, who operated at the country level. In a higher position were the *kademals*, or

members of Schleyer's Academy. It was possible to be a *kademal* and a *cifel* at the same time. Even higher on the hierarchical ladder were the *senatäns*, or members of the Senate, a small body of Scheyler's personal advisers, appointed at his discretion. And finally, in his capacity of *cifal*, or permanent and supreme leader of the movement, Schleyer could repeal the appointments made by clubs and organizations by not ratifying them in the official journal, the *Volapükapled zenodik*, where Schleyer published his decisions or "edicts," which were binding for all (Kniele [1889] 1989: 71-3).

While for the period immediately followingr the third congress Schleyer managed to retain a substantial part of the membership, this purge and organizational tune-up ultimately failed to stem the tide of disillusionment that had overtaken the movement. Many members could not withstand the mockery of the *Herren Professoren*, which was echoed by a large proportion of the educated population, and many more were alienated by the authoritarianism of the *cifal*, which made the organization closely resemble a religious sect. Neither was it helpful that Schleyer himself began to make changes in the grammar and vocabulary of the language, which obliged his loyal supporters to purchase new dictionaries and unlearn old words. Unsurprisingly, there were more desertions, first among the lukewarm supporters, and later among the most loyal, such as Rupert Kniele, Schleye's designated successor and most ardent devotee, who in 1895 gave up and abandoned the movement (Haupenthal 1989: 139-40). In 1894 only 50 local associations remained active of the 250 that had flourished for the five previous years. In 1905, nine were still operating, but the last two were dissolved four years later. With the advent of the 20th C, Volapük was practically dead (Schmidt [1964] 1986: 28, 34-5)[19].

Seen from a historical perspective, Volapük had the incumbent's advantage in the battle of artificial languages. In a short period it had managed to kindle the enthusiasm of a large number of educated people who were willing to endure the criticism and mockery of their peers, and who firmly believed that the definitive international language had arrived. In addition, Volapük had prevailed over such upstart rivals as Spelin and Pasilingua. For many, its ultimate triumph seemed assured. In the words of the the young Edgar de Wahl, who was to become a key figure in the battle of the languages in the inmediate future: "I remember when I came into contact with Volapük. I did not like it at all. I was really unhappy with every aspect of it. However, the fact that by that time Volapük had 28 journals and 283 associations all over the world was so appalling that one was, so to speak, paralyzed. I had the feeling that matters had already been settled and that it was pointless to raise objections (...) The idea that something else might emerge, that something better could be proposed, did not occur to me even in my dreams" (de Wahl [1930] 1950: 21).

[19] In the early 1930's the language witnessed a short revival under the leadership of Dr. Arie de Jong, a Dutch physician. By that time, though, Esperanto, had already taken the field, and the reformed Volapük of de Jong could not prosper (Bishop 1998; Schmidt 1964] 1986: 41-5).

And yet Volapükists failed, since instead of exploiting their position as the incumbents, they squandered it. Reformists and conservatives had been playing a classical coordination game, and even when both of them could have benefited from mutual agreement, this was impossible to attain. As Zamenhof himself admitted to his supporters, had the Volapükists managed to perfect and standardize their language in a timely manner, "we all would be probably speaking Volapük today" (Zamenhof 1929: 404). But this was not the case. Contemporaries blamed Schleyer for this failure, and probably rightly so. He had been given the most powerful position in the movement, from which he would have been able to delay and force the reconsideration of any reform proposal that was made, but this was not enough; nothing less than absolute control would satisfy him.

Schleyer certainly could have acted differently and reached a compromise satisfactory to all. So, why did he choose instead to place his entire project in jeopardy? Two possible explanations may be advanced. The first is rooted in his self-regard, his attachment to his language project, what Volapük meant for him. This was in direct contradiction to Kerckhoffs' position. While the latter viewed Volapük in strictly utilitarian terms, Schleyer stressed its esthetic dimension (Staller 1994: 341, Okrent 2009: 291). Schleyer had gained some reputation as a poet, and as such, he was particularly inclined to experiment with language, to stretch and distort its limits. He enjoyed experimenting with German spelling, which this was reflected in his writings in Volapük publications, much to the chagrin of his supporters (Haupenthal 1984:70). He was also a polyglot. He had learned other languages not to obtain material or career advantages, but merely to explore the plasticity of language itself. He saw himself as a poet, an artist who worked with words. Artists do not negotiate over colors or materials, or let a democratic assembly make decisions about esthetic issues. Artists do not allow others to make brushstrokes on their paintings. Volapük was his creation. It was to be admired or imitated, but he alone had the authority to make it more graceful or more beautiful. It was his masterpiece, in constant need of protection. As he wrote: "Volapük is my troubled child, my needy child, my bullied child" (*Rund um die Welt*, December 16, 1890: 283-4).

Unsurprisingly, it was to this cliché of the artist as a passionate, immature and childish character that his superior, the archbishop of Freiburg, resorted in his obituary of Schleyer. "For anyone who knew Schleyer superficially, it was hard, when approaching him, not to be startled by the ebullience of his personality. It was not difficult to notice that one was not dealing with an ordinary man, and that a different yardstick from that used for measuring most mortals was needed to address his genius and excitable nervous system [that blended] genius with naïve childishness. Schleyer was in many ways, even in his old

age, a child. It was his childishness that made him speak so often and in such a self-congratulatory manner about himself, boasting about his work, his title, and reputation. Or was it perhaps that he made this child the center of his small world? He was not aware of being pretentious. He never looked down another people. On the contrary, he always extended his hand to others. And was not he also grateful, like children are? Anyone who visited him in his studio could read in his face how happy the visit made him, and no one could leave without carrying in his hands a small parcel of literary samples by the inventor of the world language. Happy as a child!" (Haupenthal 2007: 28). But there is a second, more powerful explanation, unrelated to Schleyer's peculiar personality, but having to do with his membership in the Catholic Church as well as his past experiences during the *Kulturkamp*. It was them that imprinted the distinctive authoritarian ethos on his movement and framed his strategies when he found himself confronted by the reformists.

Organizational imprinting: The legacy of the *Kulturkampf*

Immediately following the unification of Germany in 1871, the country's first Chancellor, Otto von Bismarck, embarked on a political campaign intended to win the unconditional loyalty of German Catholics to the nation, and to assert the primacy of the new state over the powerful and influential Catholic Church. Bismarck's campaign, which his contemporaries would later dub the *Kulturkampf*, or culture war, was a reaction to the ultramontane stance of Pope Pius IX, and was designed to counter the doctrines he so vigorously propounded, such as the condemnation of liberalism, free thought, modern science, secular education, civil marriage, the right of Protestants to worship in Catholic countries, and any interference by the state in Church matters, which were set forth in the 1864 *Syllabus*, and cemented by the dogma of papal infallibility in 1870 (Hales 1954: 255-313, Coppa 1979: 140-68). To match that of the Pope, Bismarck's position was no less radical, and it found expressing in the expulsion of the Jesuit, Franciscan and Dominican orders, the assertion of the right to appoint and dismiss Catholic clergy, the seizure of Church property, the expulsion of ultraconservative priests, the limitation of freedom of speech for Catholic priests (the "pulpit paragraph"), and an end to the supervision of schools by members of the Church. Thanks to Bismarck's anti-Catholic laws –which the Pope Pius declared null and void– (Coppa 1979: 189), in the year 1876 all Prussia's bishops were imprisoned or in exile, and by the time the *Kulturkampf* had ended, some 1,800 Catholic priests throughout Germany had been fined or sentenced to serve prison terms (Gross 2004: 2, 246-58). One of them was Schleyer.

Although Pius IX's war against the German state was bitter, more bitter still was his struggle against the enemy within: the Old Catholic movement whose members defiantly rejected not only his teachings, but his very position at the top of the Catholic hierarchy. In short, Old Catholics sought to replace the centralized and hierarchical structure of the Catholic Church with a different organizational model based on the diocesan episcopate, which was believed to be in more keeping with the traditions of the first four centuries of Christianity, when the bishop of Rome had no primacy over his peers.

While liberal Catholics sought a more conciliatory position that would spare them from having to choose between Church and state (Mergel 1996), the Old Catholics were vehement in their animosity to the Pope. Although not strong in numbers, their earnest Catholic beliefs and the support they received from Bismarck placed the Old Catholics at the forefront of the *Kulturkampf* (Gröber 1912), and local authorities usually chose them to replace Catholic priests as inspectors of schools (Gross 2004: 253-4). Their open cooperation with state authorities earned them very harsh penalties from Rome. Their leaders (Döllinger, Friedich, Renftle, etc.) were excommunicated, as later was any priest who refused to submit to the Pope (Scarth 1883: 31-40 and 129). Public admonitions were attached at church doors, including the prohibition of administering the sacraments. Priests loyal to the Pope were ordered to deny the sacraments to Old Catholics (Mullinger 1875: 93-136; Scarth 1883: 31-40 and 129; Coppa 1979: 189; Gross 2004: 121), and Prof. Zenger of the University of Munich was refused a Catholic burial (Scarth 1883: 36-7).

As a young priest Schleyer took an active part in this confrontation by implementing the repressive measures the Pope decreed against the Old Catholics. Indeed, it was his refusal to give a proper burial to an Old Catholic in his own parish that led to his imprisonment (Haupenthal 2007: 10). During the *Kulturkampf*, Schleyer positioned himself among the most loyal Church members, in sharp contrast to the position taken by his most outspoken rival in the Volapük movement, Kerckhoffs, also a Catholic, and who as a doctoral student at the University of Bonn had supported the Old Catholic movement, although Schleyer appears not to have been aware of this (Mullinger 1875: 232). In his confrontation with Kerckhoffs, Schleyer did not bother to devise a new strategy, but instead chose to view their confrontation as a new battle in the war between the Church and its enemies, as his actions showed. First, he wielded an organization that closely resembled the Church itself (Haupenhal 1984: 105). Rigid and hierarchical, it even included a Senate, analogous to the Roman prelature (to which he would promoted in his final years), whose members were selected on the basis of personal loyalty rather than merit. Secondly, he pursued the same strategies he had used during the *Kulturkampf*. Like Pius IX, he faced criticism by asserting his own infallibility in all matters

relating to the language, and when the reformists challenged his authority he "excommunicated" them by striking their names from the official journal. Like the Pope, Schleyer demanded unswerving loyalty. Dissent was disallowed, so defection was the sole path open to those who wanted to contribute their ideas to the Volapük language. But Schleyer hinted that the language had come to him as a sort of revelation, which made him its ultimate guardian, just as the Pope claimed to be the vicar of Christ.

Conclusion

The first major protagonist of the battle of the international languages was unable to reap the benefits of the incumbency. The organizational imprinting of the movement, which arose from Schleyer's mental models, past experiences, and affiliation proved to be inadequate to the task at hand. Schleyer's authoritarian approach was unequal to the challenges of coordination that the movement faced. The Volapük movement failed to offer a standardized version of the language –a crucial issue and any struggle in which positive increasing-return mechanisms operate. Zamenhof, the promoter of Esperanto, administered the coup de grâce to his rival's project. He was better suited for the task: his past political involvement in the proto-Zionist movement in Eastern Europe prepared him to attain a better balance between voice and loyalty on the Esperanto movement, and the loyalty he demanded was not personal, but rather to the political ideal of an international language that could erode nationalist sentiments and foster international cooperation. However, his movement also faced a major challenge when a former Esperantist, Couturat, one of the founders of modern symbolic logic, launched his own language scheme, forming a splinter movement imprinted with the organizational culture and strategies of the academic world. The story of the whereabouts of Esperanto and Ido will materialize in a coming article. All in all, the hope is that the battle of Volapük, Esperanto, and Ido will let us draw relevant conclusions about the impact of agency and entrepreneurial imprinting on path-dependence processes. ■

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