

Ménilmontant to Montplaisir: A Study of Michel Chevalier and Saint-Simonism

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Introduction – Interpreting Michel Chevalier the Saint-Simonian¹

That the capitalist system functions badly is not a new phenomenon. In 1867, Karl Marx wrote in the Preface to the first German edition of *Capital* that “Perseus wore a magic cap that the monsters he hunted down might not see him. We draw the magic cap down over our eyes and ears as a make-believe that there are no monsters.”² Michel Chevalier (1806-1879) made a career out of hunting down monsters. Both authors no doubt disagreed on who and what these were, however.³ This thesis is a study of Chevalier the Saint-Simonian, and the ideology born from the works of Saint-Simon (1760-1825) known as Saint-Simonism. Understood within the context of mounting criticism concerning the ideas and real consequences inherent to industrial systems of production, a general theme exists throughout the paper, and this is the idea that the capitalist system functions badly, that industry is disorganised. Discussion of Saint-Simonism gravitates around this notion, with a particular emphasis on the treatment of capital and social welfare as understood in the works of Chevalier. So two threads run through this thesis. The first and most obvious is the discussion of his thoughts. The second, very much interwoven with the former, is the interrogation of his involvement with the Saint-Simonian movement. The point is to consider him as part of a social intellectual network that existed in the nineteenth century. The focus of this paper spans from 1806 to 1879 and is purposefully kept broad to match his perspective. I hope that this approach is useful to gain an appreciation of the various concepts born out of the long nineteenth century that influenced his thoughts on European society and the globe, before attempting more in depth analyses of

¹I would like to thank the library staff at Mount Saint Vincent University for the knowledge, services and support that made my research possible, as well as the Special Collections at Georgetown University Library for donating a series of letters produced by Michel Chevalier. My sincerest gratitude belongs to my research supervisor, Dr. Adriana Benzaquén. Without her assistance and dedicated involvement in every step throughout the process, this thesis would have never been accomplished. I would like to thank you very much for your support and understanding over these past years.

²Karl Marx, *Capital*, in *The Marx – Engels Reader 2ed.*, by Robert C. Tucker (New York; W.W. Norton & Company, 1978) 296.

³No attempt is made in this work to analyse and compare Chevalier and Marx, mostly because I have so far not found any direct references to Marx in Chevalier's work. My discussion of the intellectual network (second chapter) is contained specifically within a French context. However, it seems no coincidence that both authors published important works in 1848 and 1868. Let me say, at the risk of seeming ridiculous, that I do feel confident to suggest there existed interesting parallels between these two authors and their political economic considerations on industry.

specific periods of Chevalier's career; and to advance an alternate view regarding the length and breadth of Saint-Simonism. My intention is to argue that Chevalier was a Saint-Simonian all his life; that it is problematic to confine his involvement with the Saint-Simonian movement (and thus its impact) to the dates 1825 to 1832; and that Saint-Simonism is more aptly characterised as an ideology spanning the lives of Saint-Simon and Chevalier the Saint-Simonian.

During November of 1879, Chevalier lay bedridden for several days due to a broken ankle, which soon brought on other more serious ailments. Present at her father's side during his sickness, his daughter, Madame Beaulieu, recalled that even though he was in serious pain he had lost none of his faculties.⁴ Aged and broken and lying in his bed, it is curious to think what thoughts might have crossed Chevalier's mind. Perhaps he reminisced of his experiences with Barthélemy Prosper Enfantin at Ménilmontant and their development of the early Saint-Simonian doctrine, which included ideas regarding women, the family and property; the same doctrine that caught the attention of French authorities and earned him and Enfantin each one year in jail for crimes against public morality. How much did Chevalier recognise his sentencing, and subsequent pardon by the state, as a significant turning point in his life? Did he ever have regrets for abandoning the Saint-Simonian stance regarding social equality for women, or was this decision made purely on the basis of personal advancement? One would not assume, from watching his deteriorating health in his domain at Montplaisir, that he had been born into a modest merchant family in the town of Limoges, only a few hours north in the département of Haute-Vienne. Still, his successes were perhaps not surprising considering the opportunities available to his aspiring family during the nineteenth century. The education he received at the lycée de Limoges from the age of eleven revealed his aptitudes for the mathematical and physical sciences and for literature, and the prizes and distinctions he accumulated there helped pave the way for an early admission to the Paris Grande Ecole, l'Ecole Polytechnique. In 1823, at the young age of seventeen, he began six years of technical training – two at

⁴Quoted by Moncure Robinson in "Obituary Notice of Michel Chevalier," from *Proceedings of the American Philosophical Society* 19, no. 107 (1880) 35.

Polytechnique and four at l'Ecole des mines de Paris – preparing him for state service in the public sector as an ingénieur du corps des mines. He was then caught up until 1832 in what is now known as the Saint-Simonian movement. But by 1833, after his sentence was served, he had put aside the religious aspects of Saint-Simonism to pursue its technical, industrial and economic undertakings. The result was the quickening pace of his career from the 1830s to the 1850s. His growing renown, whether for better or for worse, can be traced by listing a few of his works during these years: his trip to the United States in 1833 to investigate the causes and successes of its economic growth resulted in his *Lettres sur l'Amerique du Nord*; the ensuing publication in 1838 of his famous work, *Des intérêts matériels en France*; the obtainment of the chair of political economy at the Collège de France in 1840, with his courses and addresses soon published in a number of editions; and his infamous *Lettres sur l'organisation du travail* written in 1848. Certainly Chevalier would have remembered the speech he gave in Lunel on October 1st, 1852, in honour of Louis Napoléon that caused such a scandal.⁵ But it was during this period of the Second Empire (1852-1870) that, as member of the Conseil d'Etat, he was perhaps most influential to the state and its plans of industrial growth. When looking back upon his career, did Chevalier feel he accomplished his goals, even in the face of opposition? He was to be sure no stranger to disappointments and setbacks. Perhaps the most significant of these were the abandoning of his claim in 1876 to build the Panama Canal when the concession had previously been approved, Chevalier having to refuse for personal reasons in 1869; and the frustrating difficulties experienced in the 1870s while presiding over the Société du tunnel sous-marin during the beginning stages of constructing the underground railway linking France and Britain. At this point it is difficult to deduce his final thoughts, but it is perhaps revealing of his character that he dedicated to this latter project even his final weeks and failing strength. Though his ankle would heal, his other maladies worsened and claimed his life. On November 28, 1879, Michel

⁵Jules Simon, "Notice sur la vie et les travaux de Michel Chevalier," from *Bulletin de la Société d'économie politique*, séance du 6 mars (1889): 205.

Chevalier, surrounded by loved ones, passed away at his country residence of Montplaisir near Lodève, in l'Hérault. He was 73.

Chevalier lived the nineteenth century. He wrote a great deal, taught as a political economist, and became a prominent statesman and senator – his resume is long, to be sure. Jean Walch, Alphonse Courtois, Jules Simon, and Moncure Robinson, present day historian and past biographers and friends, all praise Chevalier for his talent and industrious nature. They also stress his contributions to the development of political economy in France and free-trade policies across Europe – facets of his career which are developed by Walch in his work *Michel Chevalier: Economiste Saint-Simonien*,⁶ and acknowledged by Courtois, Simon and Robinson in their notices and obituaries on a lost friend and colleague. Only recently has new interest emerged concerning Chevalier. His exploits were noticeable, but these have received minimal attention by historians. Michael Drolet asks why would only certain aspects of his career be focused on while others are merely glanced at? He identifies the problem with the historiography surrounding Chevalier as one of interpretation by contemporaries and present day authors.⁷ Drolet lists possible reasons for this. For instance, Chevalier was not a skilled or popular politician during the July Monarchy (1830-1848), and if his overall career seems significant to distant observers it was less so amongst a generation of imposing political figures. Also, Chevalier did not treat on democratic or religious issues; in fact, the discipline of political economy was not well recognised during his time, says Drolet, and as people avidly studied historical, sociological, religious, and political works Chevalier's political economic contributions fell into oblivion. Drolet likewise considers as significant the lack of historical analysis on the Second Empire for interpreting Chevalier. This period was not seen in a good light by contemporaries, and he argues Chevalier's reputation suffered as such through his association

⁶Jean Walch. *Michel Chevalier Economiste Saint-Simonien, 1806-1879* (Paris: Librairie Philosophique J. Vrin, 1975).

⁷Drolet traces the renewed interests in Chevalier during the 1970s, and 1980s and 1990s to emerging interests in socialist movements like the Saint-Simonians and the neo-liberal orthodoxy of free-markets; Michael Drolet, "Industry, Class and Society: A Historiographic Reinterpretation of Michel Chevalier," *English Historical Review*, Vol. CXXIII (504)(October, 2008) 1229-30.

with Louis-Napoléon.⁸ Finally, misconceptions about free-trade and its affiliation to economic liberalism is a core concern for Drolet; so Drolet approaches the interpretive problem by arguing the important distinction that Chevalier was a proponent of free-trade but not an economic liberal. Because of the relative obscurity surrounding Chevalier, it seems the problem could be approached from a number of other directions. There is his political career, particularly his role in the Conseil d'Etat from 1852 to 1870 during the Second Empire. One might also explore Chevalier's works in the context of the “mission civilisatrice” and colonialism, consider his extensive contribution as a journalist to various social issues, such as his unwavering promotion of education and pacifism, or even his discussion of history.⁹ Lastly, there is Chevalier the polytechnicien, the mining engineer, the industrialist. All of these facets of his career could easily be expanded upon as separate works in themselves. This paper approaches the interpretive problem of Chevalier from the perspective of his involvement with the Saint-Simonian movement.

Who were the Saint-Simonians? Answering this might not be such an easy task. The movement that formed after the death of Claude Henri Saint-Simon on 19 May 1825 comprised a group of mathematicians, engineers, bankers, and industrialists. Claire Goldberg Moses and Leslie Wahl Rabine note that, as early as 1825, the Saint-Simonians were concerned with the social organisation of capital and the “unproductive wealth” of society.¹⁰ However, the Saint-Simonians are usually described as the founders of a “church” that challenged various social conceptions of religion and women. For Moses and Rabine the radical conceptions of the early Saint-Simonian men included their treatment of sexual liberation and the repressive practice of ownership of women and reproduction found in the bourgeois

⁸For example, Drolet argues that Marx's remarks in *The Eighteen Brumaire of Louis Bonaparte* coloured the history of the Second Empire, which had a lasting impact on historical interpretation of this period. In part because of this Drolet suggests the necessity to reinterpret the Second Empire and thus Chevalier's role during this period. Drolet, “Industry, Class and Society,” 1237-38.

⁹At the Paris Universal Exhibition of 1867 for example Chevalier had an exhibit of his own on the history of labour; Drolet, “Industry, Class and Society,” 1251. Drolet discusses extensively the historicism of Chevalier and the Saint-Simonians.

¹⁰Claire Goldberg Moses and Leslie Wahl Rabine, *Feminism, Socialism, and French Romanticism* (Bloomington: Indiana University Press, 1993) 32.

model of marriage, private property and the family.¹¹ The French state considered them dangerous sectarians and condemned their ideas as immoral and threatening to society. It is largely agreed that the movement ended with the imprisonment of its prominent members in 1832, so the traditional narrative considers the period spanning 1825 to 1832 as the official Saint-Simonian movement. Saint-Amand Bazard (1791-1832), Benjamin Olinde Rodrigues (1795-1851) and Barthélemy Prosper Enfantin (1796-1864) are said to be the founding Saint-Simonians, with Enfantin eventually claiming the title of “Supreme Father” of the movement. A long list of names made up the official hierarchy, while countless members across Europe and the United States were associated to this social movement. Chevalier officially joined in 1829, and it was his role as chief editor of the Saint-Simonian newspaper – *Le Globe* – that incurred him a prison cell at Sainte-Pélagie. Though Chevalier held a significant position in the church hierarchy, the presence of Enfantin as the central figure of authority eclipses his and others' involvement in the history of the movement. The central object for Enfantin during the early 1830s was to develop and spread ideas of morality, especially the position on women discussed by Moses and Rabine. It is also in these latter years that the movement took on the characteristics of religiosity that led many to believe the Saint-Simonians constituted a church or a sect. However, this period must also be characterised as one of schism amongst the higher ranking Saint-Simonians, particularly Bazard and Enfantin. Because of this it seems possible to question the prominence of Enfantin and his Saint-Simonism to suggest that under his guidance the movement underwent a critical shift in focus away from ideas on industry. How significant is the mass exodus of members during the schism in 1831? If the theory of the movement shifted with Enfantin during this period, what does this mean for understanding Saint-Simonism? Should Enfantin be considered the “Father” if his doctrine veered so drastically from original conceptions? What is Saint-Simonism, then, and who more aptly represents this ideology.¹²

¹¹Moses and Rabine, *Feminism, Socialism, and French Romanticism*, 34-42.

¹²From a theoretical perspective November 1831 was significant for the intellectual schism that led many prominent Saint-Simonians to abandon Enfantin. However, the schism seems far more suggestive when following the money, that is, the flight of industrialists and financial support that turned away from Saint-Simonism at this moment of doctrinal shift and the experiment at Ménilmontant. For Chevalier, the significance of financial confidence was defined at this moment – he was left with the responsibility of half the 30,000 francs of debt for signing notes as

In this brief introduction to Saint-Simonism lies the fundamental problem of interpreting the movement, that is, of defining Saint-Simonians and Saint-Simonism in their historical context. For Allan B. Spitzer, the Saint-Simonians were young, educated and ambitious “men of talent,” individuals frustrated and agitated by the social concerns and tensions of the 1820s.¹³ Eric Hobsbawm adds “bourgeois,” “speculative technological adventurers,” “utopian socialist,” and “industrialist” to his description of the Saint-Simonians.¹⁴ Moses and Rabine analyse their works, particularly the period influenced by Enfantin, and Saint-Simonian feminism and consider how their thought was transformed by early women's movements. Not unlike these historians, Chevalier's contemporaries also had differing interpretations of the Saint-Simonian movement. Because of internal conflicts, what constituted the official doctrine can be contested. The role of Enfantin in establishing the legacy of his ideas could certainly help explain how and why prominence and place is given by historians to the religious and moral aspects of Saint-Simonism.¹⁵ It seems possible to shine new light on the subject, however. There exists between 1825 and 1832 a clear progression of ideas amongst Saint-Simonians; this began with a focus on industry and ended with an emphasis on morality.¹⁶ These differences between stages in the movement are useful to establish that Saint-Simonians were first promoters of an ideology of industry. The religious and moral question confounds the matter, because, after all, they actually did attempt to

editor of the *Globe*. Chevalier believed paying this debt was paramount for reestablishing confidence in Saint-Simonism. He opened a communal bank account, obtained help from Saint-Simonians and the debt was erased by 1838. See Murphy for information on Chevalier's personal debt in Michael P. Murphy, *Envisioning Romantic Political Economy: The Formative Years of Michel Chevalier (1806-1879)* (ProQuest Dissertations and Theses; 2011), 270-271.

¹³Alan B. Spitzer, *The French generation of 1820* (Princeton, N.J.: Princeton University Press, 1987).

¹⁴Eric Hobsbawm, *The Age of Revolution 1789-1848* (London: Phoenix Press, 1962) 241.

¹⁵Much of the literature sees Enfantin and his religious doctrine as constituting the core of Saint-Simonism. This is perhaps not surprising considering the major anthology *Oeuvres de Saint-Simon et Enfantin* (1865 to 1875) gives pride and place to Enfantin rather than Saint-Simon. It should be noted also that Enfantin left specific instructions (and funds) in his testament for the creation of this voluminous work. See Janet for a discussion on Enfantin; Paul Janet, *Saint-Simon et le saint-simonisme* (Paris: Librairie Germer Baillière, 1878) 4-9.

¹⁶This is a simplification, as separating ideas of industry and morality from the ideological systems of Saint-Simonians like Chevalier is problematic, especially since, generally speaking, his thought shows an amalgamation of both concepts. However, Moses and Rabine discuss a “shift [in] their attention from practical economic matters to the task of inspiring and persuading society to work toward a new order,” with Enfantin leading the charge; Moses and Rabine, *Feminism, Socialism, and French Romanticism*, 33. See also Rodrigues's rejection of Enfantin in “Olinde Rodrigues aux saint-simoniens” (1832).

create a new religion. However, focusing on the moral aspects emphasised by Enfantin and disregarding the intellectual schism that occurred during the latter years confounds the definition of Saint-Simonism by overlooking its focus on industry. Enfantin's ideas are significant, but for understanding other aspects of Saint-Simonism. What this paper contends is the necessity to focus on industry as fundamental in Saint-Simonism to trace the progression and importance of this idea for Saint-Simonians. Conceptualising industry as such challenges interpretations of Saint-Simonism in two ways: the framework for discussing this ideology is defined primarily by industrial instead of moral concerns, which in turn provides the support to follow and reconsider the development of the Saint-Simonian movement, particularly its end date. Saint-Simonism does not disappear in 1832. Various ideas remain, and 1832 represents a critical branching point where, for some, the religious doctrine is set aside. To emphasise that Saint-Simonians like Chevalier consistently promoted industry before and after 1832 rewrites the history of the movement and Saint-Simonism. What complicates the matter is that Saint-Simonism beyond 1832 has not been seriously discussed by historians.

Two diverging claims need to be addressed in the historiography surrounding the thoughts of Chevalier. Authors such as Lucette Le Van-Lemesle believe that he casts off a set of ideas to adopt others, namely, his Saint-Simonism for economic liberalism.¹⁷ For Courtois, Simon and Robinson, however, Chevalier never fully abandoned his ideas; they believe that, though he abandoned the Saint-Simonian movement, he retained the general specificity of its thoughts and goals. Drolet considers him in the same light and also abstains from identifying him as a Saint-Simonian – Chevalier retains the ideas but not the Saint-Simonian title. Why is this? After all, even he disassociates himself with Saint-Simonians after 1832. But why? What made him feel the necessity to distance himself? Or, a better question might be why did he join the movement in the first place? Chevalier made a choice while imprisoned at Sainte-Pélagie, and this choice is crucial for understanding how he has been interpreted.

¹⁷Lucette Le Van-Lemesle, *Le juste ou le riche. L'enseignement de l'économie politique, 1815-1950* (Paris: Comité pour l'histoire économique et financière de la France, 2004).

What does it mean to argue that he ignored a number of Saint-Simonian ideas? Was it possible to make a clean break from these ideas, as Le Van-Lemesle suggests? How does this impact the understanding of Chevalier's thoughts before and after 1832? What implications does this have for Saint-Simonism? To fully develop a response to these questions requires an in depth look at his intellectual thought as it unfolded in his numerous works throughout his life – a task well out of reach presently. Still, even hinting at the process of intellectual continuation seems suggestive for both Chevalier and Saint-Simonism. What this does is highlight his understanding of industry and assert that this existed as a characteristic of his thought. For this reason Saint-Simonism gains significance; it becomes the dominant construct that affords the researcher the opportunity to follow the intellectual development of Chevalier to suggest the importance of his adherence to a set of ideas that were lasting, that were never abandoned throughout his life, even after his official break with Enfantin. By taking this approach I argue that Chevalier was a Saint-Simonian to the end. And if this view holds, both the analysis of Chevalier's ideas within the context of Saint-Simonism and the Saint-Simonian movement necessitate further consideration.

This thesis is divided in three chapters. The first chapter discusses a number of concepts, such as ideology, organisation, productivity, crisis, capital, and social welfare. The definition of ideology is provided first by discussing Harry Ritter's in *Dictionary of Concepts in History*. From here, it is necessary to focus on industrial organisation to narrow the field of discussion to one manageable, albeit grand, idea, and to establish industrial organisation as the basis of Saint-Simonism, that is, the basis of the thought of Saint-Simon. The main source analysed here is his *Du système industriel*. With industrial organisation conceptualised as understood by Saint-Simon, and the prominence given to industrialists in his thought, this chapter considers further Drolet's analysis of the interpretive nuances surrounding Chevalier. Considering the conflicting history of the early Saint-Simonian movement, there are arguably important considerations for suggesting that the link between Chevalier and Saint-Simon existed in the early 1830s. I take from Drolet what he argues to be the intellectual relationship between both authors, and allow Chevalier himself, commenting in

De Saint-Simon et son école, to inform the reader of his adherence to Saint-Simonism. The intellectual connection established, I discuss industry and social welfare as understood by Saint-Simon to reveal the prominence of the industrialist, capital and social welfare in Chevalier's analysis of industrial organisation. This discussion of capital informs the reader of Chevalier's understanding of capacity and responsibility within the industrial structure, or his criticism of inadequate organisation. The social and moral perspectives of industry in this first chapter hopefully reveal an understanding of Saint-Simonism as defined by industrial organisation in Saint-Simon, and accentuate this conception in Chevalier's thought as the foundation of his Saint-Simonism.

The second chapter considers Chevalier and industrial organisation in the social intellectual context of 1848. As a political economist he discussed issues concerning industry in a number of publications throughout his life; he made countless connections with social theorists, public servants, industrialists, and the public and left behind a vast correspondence. He defended capital and as such was perceived as an opponent to the working classes. Further he applied his political economic considerations of monetary theory and fiscal policy to challenge conceptions of industrial organisation in the important debates of his day. The discussion of the social intellectual network begins with a treatment of capitalism and socialism, specifically the concepts of production and appropriation. I then discuss Jeff Horn's *The Path Not Taken* to explore the context of scientific and political culture in his development of the Physiocrats, public policy and state intervention in industrial relations, to reveal that Chevalier the engineer and political economist was a product of culture developed at l'Ecole Polytechnique and l'Ecole des mines de Paris. Also, by considering Gaston Pinet's treatment of the Saint-Simonians I hope to establish further Chevalier's Saint-Simonism after 1832. With this context developed, I argue the social intellectual network was imbued with a number of ideas and concerns about the working classes that were distinctly French and state driven. The main source used for analysing Chevalier's political economy within this framework is his *Lettres sur l'organisation du travail*. Building on the consideration of

industrial organisation from the previous chapter, the *Lettres* are useful to analyse Chevalier's Saint-Simonism and his discussion of capital in the French social intellectual network of 1848.

The third chapter combines the previous discussions of capital, social welfare and industrial organisation to further consider the ideas of Chevalier the Saint-Simonian in his work, that is, consider the writer inside the text. How can Chevalier the writer be considered in his discussion of industry? What does an analysis of his socio-economic background reveal about his ideas and ideological consciousness? Consideration of “fiction” in Moses and Rabine helps to begin answering these questions. Complementary to their discussion is Katherine A. Lynch’s concept of “intention,” and both fiction and intention are utilised in this chapter to explore what drove Chevalier to think and write and act as he did. I consider his *Introduction* to the *Rapport du jury international* of the 1867 Paris Universal Exposition in this context, and discuss this work further to finalise his understanding of industry. At this point, hopefully Saint-Simonism and Chevalier has been sufficiently discussed to consider him as an agent in more than theoretical discourse. To accept this perspective of Chevalier I develop his capacity as an industrialist to organise capital in the context of grand infrastructure projects and his involvement as president of the Société du tunnel sous-marin entre la France et l'Angleterre in 1875. How significant is the fact that he was eventually capable, as an engineer, political economist and industrialist, to implement the ideas he discussed as a Saint-Simonian? What does this interpretation of Chevalier mean for understanding fiction and Saint-Simonism? How does this interpretation differ when analysed outside a European context? I consider this last question by placing Chevalier's thought and the *Introduction* in the context of Mary Louise Pratt's discussion of planetary consciousness and reciprocity and the problem of colonialism.

In the second half of the nineteenth century as the industrial applications and global spread of science and technology were increasing alongside workers’ discontent associated with industrial growth, both the new analyses of capitalist industry and blueprints for a socialist transformation of society converged on the issue of industrialisation, and, interestingly, on the notion of social prosperity. The

purpose of this thesis is to investigate the intellectual connection between Chevalier and Saint-Simon, and suggest the existence of Saint-Simonism after 1832. This position is significant for dispelling the ambiguous character concerning the ideology known as Saint-Simonism and the interpretive nuances surrounding Chevalier, the Saint-Simonian. By focusing on Saint-Simonism in *De Saint-Simon et son école*, *Lettres sur l'organisation du travail* and the *Introduction* to the *Rapport du jury international*, this thesis defines and analyses industry as it pertains to the thoughts of Chevalier, to demonstrate the important role of capital and social welfare in his analysis of industrial organisation. By approaching his thought from the perspective of Chevalier the political economist and industrialist I redefine his thought as a challenge to the inadequate organisation of capital from within the industrial structure.

Chapter One – Industrial Organisation: Defining Saint-Simonism

“Dès le commencement [...] nous croyons utile de dire que par le mot d'industrie nous entendrons non pas seulement les manufactures, ainsi qu'on le fait quelquefois, mais aussi bien l'agriculture, les mines et le commerce.”¹⁸ This definition of industry was provided by Chevalier in the *Introduction* of the *Rapports du jury international* of the 1867 Paris Universal Exposition. He understood industry as something broad, encompassing all manner of activity typical of Western industrial relations. For Chevalier, industry was a social and dynamic phenomenon, constantly in motion, adapting and changing. Where does industry fit in his ideological thought? I hope to comment and expand on Chevalier's conceptualisation of industry as this thesis unfolds. Harry Ritter examines the history of the term ideology, and discusses how it emerged as a product of the Enlightenment. The meaning of this concept, however, seems as contested today as when it was coined by Destutt de Tracy in 1796. Still, here a definition is needed and Ritter defines ideology as: “Thought – or, more broadly, consciousness – that reflects social and economic interests.”¹⁹ The following chapter aims to define and analyse the thought of Saint-Simon and Chevalier to show the intellectual connection between both authors, and to gain an understanding of what Saint-Simonism is. For Edward S. Mason Saint-Simonism represents the “practical application of a social philosophy,” which, he says, is integral to understanding Saint-Simon and the Saint-Simonians' conceptualisation of society.²⁰ What was this social philosophy? Saint-Simonism was first and foremost concerned with the rational organisation of industry.²¹ I would like to suggest that Saint-

¹⁸Michel Chevalier, *Rapports du jury international: Introduction* (Paris: Imprimerie Administrative, 1868), 10. Pinkney shows that by 1830 France was still very much an agrarian country; David Pinkney, *Decisive Years in France, 1840-1847* (Princeton: Princeton University Press, 1986) 6-9. The inclusion of agriculture by Chevalier establishes from the start the breadth of his conception of industry.

¹⁹This is only an excerpt. To his definition Ritter adds: “An ideal vision of the social and political order; a political creed, belief system, or world view. In Marxist usage, political and social beliefs that reflect narrow class interests and constitute a distorted, one-sided view of reality; ‘false-consciousness,’ as opposed to truth,” Harry Ritter, *Dictionary of Concepts in History* (Greenwood Press, 1986) 212-213. The definition of ideology should also consider *when* the thought, interests, vision, or belief emerged. Saint-Simonism is the thought of Saint-Simon, used and expanded upon by Chevalier to analyse crisis in intellectual and social relations of production.

²⁰Edward S. Mason, “Saint-Simonism and the Rationalisation of Industry,” *Quarterly Journal of Economics*, 45 (1931), 642.

²¹The definition of rationalisation used by Mason (from the National Industrial Conference Board, Rational Industrial Board of German Industry, 1931) implies the elimination of market oversights by government; Mason,

Simon's and Chevalier's thought on industry was governed by this concept of organisation. To manage these concepts more readily, I focus on their understanding of productivity in industry and organisation. However, Saint-Simon and Chevalier were also concerned with morality. By the end of this chapter hopefully the reader will have a better appreciation of Saint-Simonism as an ideology of productivity as much concerned with capital as with social welfare.

Claude Henri Saint-Simon is often considered by authors as a utopian socialist, and yet his thoughts have influenced many great thinkers such as Augustin Thierry, Auguste Comte and Karl Marx.²² Hobsbawm considers Saint-Simon the “apostle of 'industrialism' and 'industrialists'” and writes that “Saint-Simonism [...] occupies a peculiar place in the history of both capitalist and anti-capitalist development.”²³ Robert Ekelund and Robert Hébert place Saint-Simon's thought in the same context of their discussion of Condorcet and emerging views of “‘natural' laws of historical development” and “history as a study of the masses.”²⁴ Spitzer discusses at length Saint-Simon and “the vast problem of the optimum organisation of the productive apparatus.”²⁵ Consider Paul Janet's description of Saint-Simon's lasting contribution on this subject:

[L']antithese perpetuelle entre l'esprit *critique* du siècle dernier et l'esprit *organisateur* que doit avoir le siècle présent, voilà la vue dominante de Saint-Simon. C'est lui qui a popularisé et répandu dans les écoles socialistes ce terme 'd'organisation,' devenu depuis le symbole caractéristique de toutes ces écoles.²⁶

“Saint-Simonism and the Rationalisation of Industry,” 641-642.

²²Peyton V. Lyon, “Saint-Simon and the Origins of Scientism and Historicism,” *Canadian Journal of Economics and Political Science*, 27(1)(Feb., 1961), 55. Interestingly, Comte biographers resent any intellectual connection to Saint-Simon, and Marx and Engels were essentially the reason he was dubbed utopian. On Marx/Engels and Saint-Simon see the “Communist Manifesto” and “Socialism: Utopian and Scientific,” in *The Marx-Engels Reader*, 2nd edition, by Robert C. Tucker (New York; London: W.W. Norton & Company, 1978).

²³Hobsbawm says that Saint-Simon coined the terms 'industrialism' and 'industrialist;' Hobsbawm, *The Age of Revolution 1789-1848*, 241.

²⁴Robert B. Ekelund Jr. and Robert F. Hébert, *A History of Economic Theory and Method, Third Edition* (New York: McGraw-Hill Publishing, 1990), 235. See also Keith Michael Baker, *Condorcet: From Natural Philosophy to Social Mathematics* (Chicago; London: The University of Chicago Press, 1975).

²⁵Spitzer, *The French generation of 1820*, 154.

²⁶Janet, *Saint-Simon et le saint-simonisme*, 20. This source is significant. Published in 1878 – one year before the death of Chevalier – it revealed an understanding of Saint-Simon and Saint-Simonism that predated the misconceptions of later historians. Also, the author commented on the purpose of his own work, which, he noted, was created explicitly for discussing the development of social sciences and the history of socialism.

If industrialisation began in the eighteenth century in Western Europe, concepts such as organisation, industry and productivity were arguably still novel when Saint-Simon employed them in 1821 in *Du système industriel*.²⁷ Throughout this chapter and thesis I argue that the ideas of Saint-Simon were represented in a consistent manner in the thought of Chevalier. His intellectual connection to Saint-Simon was in the transmission of ideas, particularly those centred on organisation. At the same time it seems significant to acknowledge aspects of difference between both authors and the social intellectual context of their ideological thought. Saint-Simon's commentary was a response to different sets of questions posed in a different intellectual context. In terms of productivity, differing social context could not be clearer: between 1800 to 1825, when Saint-Simon wrote the majority of his work, French industrial capacity exhibited marked differences from 1848 and 1867. Saint-Simon believed productivity to be the goal of society, and he understood industry as the precondition for social and industrial relations.²⁸ Industrial organisation meant for Saint-Simon that society had the capacity to improve its material conditions; so productivity was not simply what society strove for but also the reason increasing well being and standards of living was possible. However, organisation highlighted in Saint-Simon's ideological thought the disorganisation that followed intellectual and social revolution at a time when European society was transitioning from subsistence economy and industrialisation was rapidly accelerating. This is especially significant because both his and Chevalier's analysis of industry in the

²⁷For Horn, the process of French industrialisation overlaps the eighteenth and nineteenth centuries. His in depth consideration of industrial relations reveals the significance of political and scientific culture for industry in France, which has serious implications for observing existing patterns of industrialisation without relying on overstated views of industrial competition and superiority. Industry was changing and industrial relations evolving even if the revolutionary period had significant impact for disorganising industry in France. Jeff Horn, *The Path Not Taken: French Industrialisation in the Age of Revolution 1750-1830* (Cambridge: The MIT Press, 2006). Pinkney's consideration of France as an agrarian nation, "dominated by an aristocracy of landowners" no less, adds further depth to explain the slow process of industrial change up until the 1830s. At the same time Pinkney's emphasis on the challenge of the "new age" allows him to show why French industry took off during the period 1840 to 1847; Pinkney, *Decisive Years in France*, 3-22. See also Gildea for a discussion of demographic shifts in Europe and their impacts on food availability, rural and urban development, and labour supply in agricultural and industrial sectors; Robert Gildea, *Barricades and Borders: Europe 1800-1914* (Oxford; New York: Oxford University Press, 1996) 3-9.

²⁸See Mason's discussion of the principle of productivity in Saint-Simonism relative to Saint-Simon's thought on organisation and industry; Mason, "Saint-Simonism and the Origins of Scientism," 652-657.

context of rapid social change signalled that, though the principles of 1789 were important, the French Revolution did not end disorganisation of industrial relations. To further consider organisation let us turn to Saint-Simon's discussion of crisis in *Du système industriel*.

Saint-Simon believed France and Western Europe were experiencing a period of crisis at the turn of the nineteenth century. He had two perceivable goals in writing *Du système industriel*: to define the period of crisis by juxtaposing the regime of force with the regime of organisation and to argue the necessary power shift needed for transition to occur. ‘En termes plus précis,’ he began, “cette crise consiste essentiellement dans le passage du système féodal et théologique au système industriel et scientifique. Elle dura, inévitablement, jusqu’à ce que la formation du nouveau système soit en pleine activité.”²⁹ In *Saint-Simon et le saint-simonisme*, Janet argued that, for Saint-Simon, the crisis was first and foremost defined by this notion of transition – a period of confusion or unrest resulting from the abolition of the social system of the Ancien Régime. Janet showed that Saint-Simon believed the crisis was caused by an improper understanding of the necessary action needed to reduce the powers of the nobles, clergy and judiciary institutions.³⁰ It was in this sense that Saint-Simon argued the crisis was worsened by Enlightenment thinkers for overly criticising and dismantling institutions of the Ancien Régime without constructing the system by which it should be replaced.³¹ “Ceux qui ont dirigé les travaux encyclopédiques,[...]” said Saint-Simon, “ont exaspéré le peuple contre les prêtres, contre les nobles et contre les juges, en présentant ces fonctionnaires publics comme ayant à toutes les époques retardé les progrès de l’esprit humain, ce qui est absolument faux. Voilà [...] quelle a été la véritable origine des malheurs qui sont arrivés pendant la révolution.”³² He was quite clear on this point: “Si les institutions du clergé, de la noblesse et de l’ordre judiciaire, ont duré grand nombre d’années, si elles ont eu beaucoup de force, c’est qu’elles

²⁹Saint-Simon, Claude Henri Saint-Simon, *Du système industriel* (Paris: Antoine-Augustin Renouard, 1821) i.

³⁰Janet, *Saint-Simon et le saint-simonisme*, 20.

³¹Saint-Simon, *Du système industriel*, 137.

³²Saint-Simon, *Du système industriel*, 144.

ont rendu de longs et importants services à la majorité de la nation.”³³ Saint-Simon was taking a stand on significant intellectual debates of his day, such as interrogations into the political and economic conceptions of the state. Drolet argues that Saint-Simon’s understanding of political economy stood at odds with a liberal parliamentary system that wished to safeguard constitutional individual liberty. He shows that instead, for Saint-Simon, society’s goal was not the perfecting of the political apparatus; rather, that the government existed to serve and promote the demands of society through industry. Saint-Simon did not argue for an end to parliament, but a serious reorganisation of focus and goals. Institutions, he claimed, should not be governed by nobles and clergymen but by administrators who understood the intricacies of industrial organisation.³⁴

Saint-Simon tasked himself with developing the philosophical framework of an industrial doctrine which amalgamated ideas of organisation and industrial production with the goals of the “praticiens” and “théoriciens” – industrialists and scientists (savants).³⁵ The detailed intricacies of Saint-Simon’s conception of the philosophy of industry and the role of the industrialists and scientists can be discussed at great length, but is not attempted here. His method of arguing was interesting, however, for his recourse to history in his philosophy.³⁶ At the centre of this conception was the industrialist. In *Du système industriel*, Saint-Simon was as much concerned with persuading industrialists of his system as he was with persuading industrialists of their own importance as producers of material and social well being within this system. Targeting industrialists as social leaders was significant for Saint-Simon; it demonstrated in his analysis an understanding of the

³³Saint-Simon, *Du système industriel*, 131. It seems significant to emphasise that if Saint-Simon highlighted the importance of Enlightenment figures for shaping public discourse and their impact on revolution, he also focused his analysis on the métaphysiciens and légistes after 1789. The latter represented for Saint-Simon a continuation of metaphysical reasoning in the Rights of Man, as an abstraction of the present without considering the past and the social organising forces that proved important for European society. Saint-Simon, *Du système industriel*, 11-74. This is crucial for the discussion of Chevalier and his analysis of the principles of 1789 and fixing the code civil of 1848 in the second chapter.

³⁴Drolet, “Industry, Class and Society,” 1244-1245.

³⁵Saint-Simon, *Du système industriel*, 235.

³⁶See Spitzer's discussion of Saint-Simon's historicism; Spitzer, *The Generation of 1820*, 158. See also Lyon, “Saint-Simon and the Origins of Scientism and Historicism.”

changing social relations and power struggles occurring in the first quarter of the nineteenth century in Europe that pitted the leaders of the old tributary system with the 'new man,' the enterprising industrialist.³⁷ Industry and science played an important role in crisis and organisation. “[Le] but direct de mon entreprise,” said Saint-Simon, “est d’améliorer le plus possible le sort de la classe qui n’a point d’autres moyens d’existence que le travail de ses bras [...]”.³⁸ However, according to Saint-Simon and Chevalier, the *industrial system functioned badly*; that is, industrial production in France and Western Europe was disorganised – the proof was the prevalence of poverty and unemployment. They believed a society with industrial capacity was capable of providing more than subsistence, which was especially significant because subsistence methods of production no longer sufficed for providing the majority of people with the necessities and work needed. The term “crisis” was synonymous with the problems of industrial organisation (or disorganisation) and production and the responsibility of capacity at a moment of serious social transition. Herein lies the practical dimension of Saint-Simonism. The notion of social crisis highlighted in Saint-Simon’s and Chevalier’s thought a practical understanding of the role of industry and organisation in society; it underlined a clear social and moral objective – to organise work (l’organisation du travail). Crisis defined for both authors an intrinsic appreciation in their thought for the interdependence of industrial progress and social well being within industrial organisation; this concept set the parameters for their ideological thought and directed all aspects of their social and economic analysis. This was crucial for the discussion of ideology and the context in which Saint-Simonism emerged. For Saint-Simon the period in which he formed his ideas was important, if not entirely consequential. When the nobility, clergy and judiciary institutions were being heavily criticised, Saint-Simon also put forward a challenge: understanding they had had an important impact for change in Europe, he nevertheless argued that the priorities of these powerful groups and institutions were no longer consonant with the

³⁷Gildea, *Barricades and Borders*, 28-34.

³⁸Saint-Simon, *Du système industriel*, 264.

changing needs of a new historical period. More importantly perhaps for Saint-Simon, their power was not to be appropriated but instead replaced by a willingness to adopt the organisational capacity and leadership of the industrialist. Though again intellectual and material context differed, Chevalier made the same type of arguments, as I argue below. The challenge of Saint-Simon and Chevalier to industrial organisation came from within the structure, that is from individuals reflecting on their own capacity as being able to challenge leadership in France. I wish to highlight the social and economic conceptualisation of the industrialist by Saint-Simon. To do this it is necessary to perceive the industrialist as producer of capital, both physical and human. Because of the general approach he took to put forward his arguments, Saint-Simon's thoughts on capital were perhaps less explicit.³⁹ Chevalier's views on capital were far more explicit. How can capital help to understand Saint-Simonism?

In the continuing attempts to define, according to Saint-Simon, what is Saint-Simonism, the reader might also benefit from a brief discussion of capital in early Saint-Simonism. I would like to argue that the founding theoretical difference between Saint-Simon and the early Saint-Simonians was their respective approaches to capital, particularly the redistribution of wealth. Consider their positions on property rights and inheritance. Drolet places Saint-Simon's thought within the context of ideas being discussed in France in the late eighteenth and early nineteenth century. Particularly, he focuses on the thought of Ideologues such as Jean Baptiste Say and Charles Dunoyer. What Drolet seems to suggest is that these individuals (or the intellectual discussion taking place) had a significant impact on questioning, rethinking and redirecting the principles of social organisation away from politics towards commerce and industry. This type of thinking was emerging, says Drolet, precisely because social theorists believed the succession of constitutions during the revolutionary period did nothing to end the crisis in France.⁴⁰ Drolet

³⁹He never actually used terms such as capital formation in *Du système industriel*. His implications were nevertheless clear: capital formation and accumulation by industrialists occurred over generations; Saint-Simon, *Du système industriel*, 11-39. See also Saint-Simon, *L'industrie, ou Discussions politiques morales et philosophiques. Dans l'intérêt de tous les hommes livrés à des travaux utiles et indépendans, Tome I et II* (Paris, 1817).

⁴⁰Drolet, "Industry, Class and Ideology," 1243-1244.

argues that the implications of this discourse had radical consequences for emerging conceptualisations of class and property:

Only when the parasitic aristocracy [les oisifs], an aristocracy that appropriated the fruits of the labour of others and thereby dispossessed an entire class of the external goods necessary to a conscious individual identity, was abolished, and a society of producers [les travailleurs] replaced it, could individual fulfilment, community cohesion and social peace be achieved.⁴¹

Consider now Saint-Simon's understanding of property. The terminology he used in *Du système industriel* characterised industrialists as either belonging to the idle class (les oisifs) or the producing class (les travailleurs).⁴² This is significant when understanding that Saint-Simon's industrial ideology was formed in the period of crisis; his thoughts centred on criticism of industrial organisation, but never the appropriation of resources, property or wealth of any member of society. By 'replacing' the nobles, clergy and judiciary officials Saint-Simon was saying that their historical task of administering the state had come to an end. To be clear, Saint-Simon made no attack on property. Instead property and inheritance were important means for organising society. He placed importance on industrialists because, in his conception of history, property and inheritance stood out as indicators of their capacity to produce and accumulate wealth and organise industry.⁴³ He compared the industrialist's capacity for productivity with the unproductive propriétaire oisif, who was careless with his inheritance, and worse, said Saint-Simon, might even think to profit from the disorganisation of society. For Saint-Simon idleness and wastefulness (gaspillage) had no social use, and, indeed, were counterproductive for a society that wished to organise itself industriously.⁴⁴ The early Saint-Simonians shared some of these concerns, to be sure. However, a

⁴¹Drolet, "Industry, Class and Ideology," 1244.

⁴²The implications of Saint-Simon's thought considering idleness and productiveness went deeper than this: these qualities were not solely the province of industrialists. Saint-Simon applied idleness and productiveness to industrialists in *Du système industriel* but clearly his criticism was social and not class based. What implications does this have for understanding Saint-Simon's so called class interests? See Mason's discussion of class interests in Saint-Simonism; Drolet highlights *travailleurs* or *industrieux* (see below) in Saint-Simon as a characteristic of productiveness; Chevalier commented on this distinction with his definition of *travailleurs* (and not *ouvriers*) in *Lettres sur l'organisation du travail*: "[U]n chef d'industrie est un travailleur au même titre que l'homme qui se livre au travail manuel de l'atelier; le savant et l'artiste sont aussi des travailleurs; le magistrat, sur son siège ou dans son cabinet, le ministre d'un culte, dans sa chaire, sont des travailleurs aussi bien que l'homme de peine"; Chevalier, *Lettres sur l'organisation du travail*, 1.

⁴³Saint-Simon, *Du système industriel*, 23.

⁴⁴Saint-Simon, *Du système industriel*, 107-108.

contradiction arises from their consideration of capital that is well worth highlighting. It is interesting to wonder at the theories of the early Saint-Simonians while considering the backgrounds of some of the more prominent members. Olindes Rodrigues, the brothers Emile and Isaac Pereire, Gustave d'Eichthal, Saint-Amand and Claire Bazard, Philip Buchez, Cecile and Henri Foureil, and even Prosperere Enfantin, constituted the original 'school' that banded together in June of 1825, only days after Saint-Simon's death. The commonality of purpose amongst these men and women – mathematicians, bankers, industrialists – might not seem so out of place when remembering that it was these individuals (in their capacity as industrialists and scientists) that Saint-Simon addressed in *Du système industriel*. Like Saint-Simon's, the goals of the early Saint-Simonians centred on ideas of human and social progress. Moses and Rabine comment on how the Saint-Simonians believed unproductive and idle wealth was the cause of poverty and misery. By regenerating society's productive forces through increasing the role of the state and the proliferation of banks, and, importantly, stimulating the unproductive owners of capital, the Saint-Simonians were addressing in their theoretical discussion the material conditions they understood necessary for improving the needs of the poorest segments of the population.⁴⁵ So capital for the early Saint-Simonians also had an integral role in the creation of wealth and improving social well being, as in Saint-Simon. This shows that the early phase of Saint-Simonism was consistent with key ideas on crisis, organisation and productivity as found in *Du système industriel*. However, the contradiction (or one of the contradictions) that arose in their early works concerned the abolishment of inheritance and confiscation of the property of individuals who did not make theirs public.⁴⁶ Wealth was to be increased, but also redistributed, advocated the early Saint-Simonians. How could capital formation and the role of banks be emphasised while attacking property rights and inheritance? Understanding this theoretical distinction – the redistribution principle – between Saint-Simon and Saint-Simonians reveals important considerations

⁴⁵Moses and Rabine, *Feminism, Socialism, and French Romanticism*, 32.

⁴⁶Moses and Rabine discuss this theoretical dimension within early Saint-Simonian theory; they do not discuss this notion of contradiction, however, likely because the authors' goals are different from those of this thesis. Moses and Rabine, *Feminism, Socialism and French Romanticism*, 21.

of difference. The crucial interpretive mistake that has transcended the history of Saint-Simonism was that industrial organisation was to be achieved by appropriating and redistributing wealth forcefully. There were moral implications to this contradiction as well. “[I]n one crucial respect,” writes Drolet,

[the Saint-Simonians] diverged significantly from Saint-Simon's ideas. Rather than emphasising the singularity of purpose between the proletariat and bourgeoisie as members of the same producing class, *les industriels*, as Saint-Simon had done, Enfantin and his followers presented a social and historical narrative that separated bourgeois and labourer, or, to paraphrase from Isaac Pereire's *Leçon d'économie politique*, pitted 'idle wealth' against 'wretched industriousness.'⁴⁷

The revolutionary character of Saint-Simon's thought emphasised a desire to organise, not disorganise, productivity and society – to harness the capacity of science and industry to *create* and not to *destroy*. This holds as much significance for Saint-Simon's views on production as for his consideration on moral relations. This thesis posits that, to answer what is Saint-Simonism and who best represented this ideology, the Saint-Simonian narrative must be extended. Even with contradictions concerning property and inheritance, capital and social welfare stand as the intellectual concepts in Saint-Simon that survive; capital and social welfare are the intellectual threads that can be found in Saint-Simonians before and after 1832.

As discussed in the introduction, the problem with reading Chevalier and attempting to understand Saint-Simonism is that the historiography reads differently the intellectual authority of the movement. Janet addressed the “problème saint-simonien” as such: “Ce qu’il y a de moins connu dans le saint-simonisme, c’est Saint-Simon.”⁴⁸ He explained that “l’éclat même de son école l’a rejeté dans l’ombre, et les disciples ont fait oublier le maître.”⁴⁹ In short, the history of the Saint-Simonian movement remembers Enfantin as the intellectual authority instead of Saint-Simon. To explore this to its full depths is not the purpose of this thesis. Significant here is how the historiography of Chevalier views his intellectual development and ideological adherence, particularly during the moment of choice when he

⁴⁷Drolet, “Industry, Class and Ideology,” 1240-1241.

⁴⁸Janet, *Saint-Simon et le saint-simonisme*, 9.

⁴⁹Janet, *Saint-Simon et le saint-simonisme*, 3. Also, Drolet is very much in accordance with this; Drolet, “Industry, Class and Ideology,” 1240.

was imprisoned at Sainte-Pélagie from December 1832. For example, Le Van-Lemesle suggests that Chevalier was looking to distance himself from Saint-Simonism after 1833.⁵⁰ The author claims it was here, at Sainte-Pélagie, that Chevalier rejected his Saint-Simonian past; it is during this moment that many like Le Van-Lemesle view the beginnings of the feud with Enfantin as the significant turning point in Chevalier's intellectual thought. Without qualifying what is meant by Saint-Simonism, without qualifying what the ideas that troubled the young engineer were, Le Van-Lemesle claims Chevalier took great pains to distance himself from the political economic conceptions he held prior to 1832. A number of outcomes result from Le Van-Lemesle's position: the authority of the movement, and thus the ideas themselves, become eschewed – if no clarification is made, how is the reader to disassociate the ideas of Saint-Simon and Enfantin in Chevalier's thought? The author also misrepresents Chevalier's ideas, which allows her to suggest Chevalier's re-entrance into society meant he washed away his past and turned towards a different social and economic agenda, when really these ideas were arguably the same throughout his life.⁵¹ Another consequence of this position is that Chevalier's past experiences become irrelevant in his intellectual development. By distancing him from his Saint-Simonian past, Le Van-Lemesle marginalises Chevalier's experiences at Ménilmontant. Ménilmontant was the estate *inherited* by Enfantin where the early Saint-Simonians retreated in 1832 to attempt to live an ascetic, chaste and communal lifestyle.⁵² This experience profoundly influenced his social criticism from 1833 onward. Choice in the historiography of Chevalier is significant. The idea touched upon by Le Van-Lemesle and others that Chevalier felt the need to choose actually did govern his thought while in prison.⁵³ So Le Van-Lemesle is correct: Chevalier did make a decision while at Sainte-Pélagie. But this needs to be qualified – he chose to abandon, not Saint-Simon, but Enfantin's doctrine. The error is believing Enfantin represents

⁵⁰Le Van-Lemesle, *Le Juste ou le Riche*, 95-96.

⁵¹Arguably, it was Chevalier the Saint-Simonian who wrote the *Lettres sur l'Amerique du Nord* (published 1844, but written in 1833); that is, he revealed his adherence to Saint-Simon and industry the first chance he had, in 1833.

⁵²Murphy writes: “[t]he outbreak of cholera made living in Paris dangerous, and while there is no clear evidence to suggest that the Saint-Simonians retreated for the sake of their own health, their timely move to the country estate suggested so;” Murphy, *Envisioning Romantic Political Economy*, 153.

⁵³See Jean-Baptist Duroselle, “Michel Chevalier, Saint-Simonien,” *Revue Historique* (Paris, 1956) 249-252.

Saint-Simon. As such it seems erroneous to say Chevalier abandoned this and that set of ideas. Instead, the moment of choice in his thoughts should highlight his attempts to pursue discussion and work on ideas he believed were within his capacity. The moment of choice should also show in Chevalier an explicit recourse to his understanding of experience in relation to the feasibility of certain ideas and not of others. I say this because there was an interesting dynamic to Chevalier's analysis of society and change, that is, he believed there were limits to what people could and could not accept. The experience at Ménilmontant informed him on his choice between *Enfantin* and Saint-Simon.

On 6 January, 1838, in the publication *Journal des Débats*, Chevalier rebutted Louis de Carné's misreading of Saint-Simon and Saint-Simonism, taking the opportunity to clarify misconceptions regarding ideas on the family, women, inheritance, and property. Chevalier began:

L'article de vous [...] m'a paru inexact, erroné, injuste envers un homme [...] pour la mémoire duquel je professe une vénération profonde.[...] Cet homme, Monsieur, est Saint-Simon [...]. [Je] vous l'assure, lorsque vous serez remonté aux [...] écrits de Saint-Simon, vous reconnaîtrez que ni implicitement ni explicitement ils ne conduisent à ces conclusions subversives, et que vos accusations reposent sur autant d'erreurs.⁵⁴

Concerning himself and his then Saint-Simonian colleagues, he stated: “[I]ls tirèrent des conséquences à perte de vue des principes posés par Saint-Simon, et arrivèrent de proche en proche à des exagérations et à des erreurs.” Still, Chevalier was not so quick to dismiss the importance of his experience:

C'était, si vous le voulez, une folie: je ne fais nulle difficulté de le reconnaître, quoique, en somme, au lieu de déplorer la part que j'ai prise au mouvement saint-simonien, je m'en félicite hautement à cause des choses que j'y ai vues et apprises, et des hommes avec qui je m'y trouvai étroitement uni.

Mais surtout reconnaissez vous-mêmes que Saint-Simon est entièrement innocent de cette conception sur la propriété; car ce serait en vain que vous la recherchiez, même en germe, dans ses nombreux ouvrages [...]. [P]ersonne n'a le droit d'attribuer ces idées à Saint-Simon: elles ne viennent pas de lui.⁵⁵

Chevalier was telling de Carné “talk about Saint-Simon to the public, by all means, but if you choose to discuss these ideas make sure to go straight to the writings of Saint-Simon.” He was saying implicitly

⁵⁴Michel Chevalier, “De Saint-Simon et son école,” in *Journal des Débats* du 6 janvier, 1838, 5.

⁵⁵Chevalier, “De Saint-Simon et son école,” 5-6.

“challenge Saint-Simon openly again and you will have me to face” – from 1838 onward, Chevalier became the defender of Saint-Simon and Saint-Simonism. This document is interesting, if for nothing else, for clarifying Chevalier's ideological adherence to Saint-Simonism: “[N]on seulement je tiens à honneur d'avoir été au nombre des disciples de Saint-Simon,” he admitted, “mais je suis fier de me dire encore tel.”⁵⁶ Chevalier's language was clear: he had been and still was a disciple of Saint-Simon. Moreover, by 1848, Chevalier argued clearly in favour of property and inheritance.⁵⁷ On property rights he noted, “deux forces solidaires, le sentiment de la famille et l'esprit de propriété individuelle, servent à la formation et à la conservation du capital.”⁵⁸ Concerning inheritance he was adamant that “[l'héritage] est la traduction matérielle de la tendresse qu'éprouvent les parents pour leur enfants.”⁵⁹ Thus, for Chevalier, family, property and inheritance were paramount in the process of capital formation and accumulation. The contrast seems clear. By 1848, Chevalier was rectifying his own former Saint-Simonian misconceptions of property and aligning them with Saint-Simon. But to claim this as a complete separation of his thoughts from the Saint-Simonism of 1832 is misleading. This would imply a disassociation from the practices at Ménilmontant without considering that his earlier experiences had an effect on the formulation of his thought, ideas perhaps entirely based on the impracticality of earlier conclusions. Because of his engagement within the social intellectual network in 1848, Chevalier's stance on property rights seemed even clearer than Saint-Simon's in 1821: property and inheritance – capital – form the basis of the social industrial structure considered by Saint-Simon and Chevalier in their system of thought.

So what was Saint-Simonism? Saint-Simon's discussion of industrial organisation centred on an analysis of crisis, organisation, industry, and social well being. Analysing Saint-Simonism, unfortunately for *Enfantin*, necessitates finding and focusing on the ideological roots of the movement in Saint-Simon

⁵⁶Chevalier, “De Saint-Simon et son école,” 5.

⁵⁷For a discussion of l'héritage égalitaire in France during the nineteenth century see Philippe Steiner “L'héritage au XIXe siècle en France, Loi intérêt de sentiment et intérêts économiques,” *Revue économique*, 2008/1 Vol. 59, 75-97.

⁵⁸Michel Chevalier, *Lettres sur l'organisation du travail, ou études sur les principales causes de la misère et sur les moyens proposés pour y remédier* (Bruxelles; Livourne; Leipzig: J.P. Meline, 1850), 60.

⁵⁹Chevalier, *Lettres sur l'organisation du travail*, 58.

at the expense of discrediting Saint-Simonians and certain positions they held up until 1832.⁶⁰ From such a prominent position as chief editor of the *Globe* (the doctrine's medium), how can Chevalier's part in the propagating of ideas that ran contrary to Saint-Simon's be interpreted? Perhaps the answer to this contradiction lies within the Saint-Simonian archives. No attempts are made in this thesis to apologise for Chevalier by blaming Enfantin for my protagonist's part in the movement, or for his own agency in deciding the course of his actions. What was interesting was the role Chevalier had in *organising* life at Ménilmontant.⁶¹ The prospects of discovering in archives his observations concerning social, productive methods of organisation during this experimental stage of the Saint-Simonian movement would no doubt offer interesting insights concerning his early developmental conceptions of Saint-Simonism. Still, there exist works written by the young Chevalier that exhibit affinities to Saint-Simon. *Le système de la Méditerranée* (1832) was one of these texts, which, as per Drolet, affords an interesting example to suggest a bridge between the early and later thoughts of Chevalier.⁶² Again, Ménilmontant was important for Chevalier's intellectual formation; it demonstrates the need to understand even in his later writings the influence of his early experiences with the experimental stages of the Saint-Simonian movement. In short, discussing the early Saint-Simonians' theory is a cumbersome task that is purposefully not attempted here. There existed inherent contradictions in their early theories, like the discussion of property mentioned

⁶⁰Much can still be said about Enfantin. The Saint-Simonians who met him understood the magnitude of his character and significance of his intellect. If he was (rightfully) discredited for the Saint-Simonian experiment at Ménilmontant and his moral theorising, he should be recognised for his prominence in mathematics. Also, a fresh look at the building of the Suez Canal might have interesting implications for Enfantin and his role in Egypt prior to the 1860s.

⁶¹Jules Simon made this curious observation in passing: “[La besogne] de Michel Chevalier était plutôt *d’organiser* la vie actuelle, que de dogmatiser sur la vie future [italics added];” Jules Simon, “Notice historique sur la vie et les travaux de Michel Chevalier,” from the *Bulletin de la Société d’économie politique*, séance du 7 décembre 1889, (Paris: Librairie Guillaumin, 1889) 186. Historian J.B. Duroselle notes Chevalier's growing part “dans les préoccupations financières de l’école,” and on Chevalier's role at Ménilmontant he writes: “C'est lui qui *organise* les cérémonies, s'occupe des achats de nourriture, recrute des sténographes[...][italics added];” Duroselle, “Michel Chevalier saint-simonien,” 240, 246. See Chevalier's discussion of works and the costs of living in *Le livre nouveau des saint-simoniens* (Ménilmontant, 2 juillet – 12 août, 1832), 55-63. Arguably he understood early concepts such as specialisation and comparative advantage: at Ménilmontant the Saint-Simonians bought instead of attempting to grow vegetables because agriculture was best left to agriculturalists, for example.

⁶²Murphy corroborates this treatment of *Le système de la Méditerranée*, and also adds Chevalier's “Cholera Morbus” (1832) to the discussion of important formative works; see Murphy, *Envisioning Romantic Political Economy*, 123-130, 142-147.

above. Did Chevalier see these contradictions? To what extent was his distancing from Enfantin significant for signalling this? How significant were these contradictions for other prominent Saint-Simonians after 1832? Though contradictions did exist in the early Saint-Simonian movement, Saint-Simon's thought was the basis for Saint-Simonism – Chevalier informed us of this himself. Further discussion of capital is useful to highlight the intellectual connection of Saint-Simon and Chevalier and the founding ideas of Saint-Simonism.

What does Chevalier's consideration of capital, productivity and wealth reveal about the expectations he had of industry and the industrial organisation of society? In *Lettres sur l'organisation du travail*, he defined capital as:

Les outils, les machines, les appareils, tout ce qui compose enfin l'attirail gros ou menu de nos échoppes, de nos ateliers, de nos usines; les forces de la nature dès qu'elles sont appropriées, le vent sur les ailes du moulin, la chute d'eau sur les palettes ou dans les augets de la roue, la vapeur d'eau contre le piston de la machine à feu; toutes les inventions, une fois qu'elles ont pris un corps dans un engin quelconque, c'est du capital; les vastes approvisionnements de matières que nécessite la grande industrie, encore du capital; les routes, les canaux, les chemins de fer, le bateau de nos rivières, le navire à voiles ou à vapeur qui fend les mers, le cheval roulier et la locomotive, toujours du capital.⁶³

This definition was not complete, however. He added: “L’habileté de l’ouvrier lui-même, qu’il doit à une instruction préalable, à un apprentissage, à l’exemple et aux conseils de son père, à sa propre expérience, c’est aussi du capital, capital précieux, capital d’une rare puissance.”⁶⁴ Now consider Chevalier's thoughts on productivity and wealth:

La puissance productive de l’individu détermine celle de la collection organisée de toutes les individualités éminentes, moyennes ou faibles, qui est la Société [...]. Par la puissance productive, il faut entendre la quantité de produits [...] que rend le travail moyen d’un homme, dans un laps de temps déterminé, considéré comme l’unité [...].⁶⁵

La richesse de la Société se compose [...] de tout ce qu’elle possède de choses en rapport avec les besoins de tout genre [...]; la variété en est infinie [...]. [La] richesse de la Société comprend

⁶³Chevalier, *Lettres sur l'organisation du travail*, 15.

⁶⁴Chevalier, *Lettres sur l'organisation du travail*, 15-16. For Chevalier, money was not capital but a medium of exchange, a unit of account and a store of value; it was a means to define or measure the value of capital; see Chevalier, *Introduction*, 13-14, 18.

⁶⁵Chevalier, *Introduction*, 10. His thoughts might be more developed by 1868 but the elements were arguably the same.

les articles marchands les plus communs, qui sont de première nécessité et à la portée des plus pauvres gens, aussi bien que ceux du plus grand luxe [...].⁶⁶

Plus une société a de puissance productive, et plus chaque année elle crée de richesse sous les cent mille formes que comporte ce mot; plus est grande, par conséquent, la quantité des objets de toutes sortes, applicables aux besoins divers de ses membres, qu'elle peut, tous les ans, tous les jours, répartir entre eux, les rendant par cela même plus riches ou moins pauvres.⁶⁷

Capital was defined as the physical tools, natural phenomena and processes necessary to the formation of industry. Capital was also human knowledge, characterised perhaps typically by the advancement of science and technology. But, as seen above, capital was also human capacity; it was not only scientific principles and theory developed by intellectuals and scientific institutions but understood by Chevalier as skill, ability and hard work, and also the capacity to receive/give education and training and acquire experience. Human capital is perhaps the more interesting type of capital; it represents the human capacity to produce, manipulate and acquire physical capital, but also produce, manipulate and acquire knowledge in general and in oneself. So capital, both physical and human, was seen as the engine behind society's productive capacity – its ability to produce wealth. So how did capital and industry influence well being?

For Chevalier, like Saint-Simon, the purpose of productivity was summed up in two words:

“l'amélioration populaire.”

Il manque [à la France] une masse suffisante en produits de toute sorte, en denrées alimentaires, en articles d'habillement, de mobilier, de chauffage [...]. La vérité est [que la France] ne produit pas assez. Il s'en faut beaucoup qu'elle produise ce qui serait nécessaire pour que tous ses enfants pussent être retirés de l'étreinte d'une misère dégradante; et par conséquent la solution du problème de l'amélioration populaire suppose un grand développement de la production.⁶⁸

Capital and industry influenced well being through l'amélioration populaire, that is, by raising the standard of living. The capacity to produce goods depended on capital, or society's capital stock. Capital stock gave Chevalier an indication of the wealth of society. The larger the capital stock, the better off society was for its ability to produce consumable goods, acquire knowledge and develop skills. It seems

⁶⁶Chevalier, *Introduction*, 11-12.

⁶⁷Chevalier, *Introduction*, 12-13.

⁶⁸Chevalier, *Lettres sur l'organisation du travail*, 7-8.

as important to interpret that wealth was also for Chevalier a social stock of goods, knowledge and skills made available to the population. Because what is the point of increasing productivity if those who need it most do not have access to a better standard of living? By increasing productivity and wealth, Chevalier believed, industry would respond to the needs of the poorest segment of the population.⁶⁹

But again industry functioned badly for Saint-Simon and Chevalier. According to Chevalier French industrial capital in 1848 was not only wanting but seriously disorganised.⁷⁰ I place Chevalier's arguments within the discussion of crisis because this concept defined the context in which to analyse his thought in 1848. The goals of industry and productivity were to provide for society; misery, poverty and unemployment were proof these goals were not being met. There were two important criticisms of capital within his understanding of organisation. The first was centred on limited productive capacity. By the nineteenth century serious demographic shifts had altered the structure of European society.⁷¹ Poverty and misery abounded because production was not sufficiently developed or adequately organised to make readily available the necessary work and goods needed by a growing population.⁷² Chevalier's investigation of the problems inherent to French industry should not be understood as necessarily adhering to classical economic theory.⁷³ To make such an observation would disregard the moral implications of industrial organisation in Saint-Simon and Chevalier, that is, their concerns for social well being, at a time when industrial ideologies were being heavily criticised as empty doctrines centred on

⁶⁹Chevalier, *Lettres sur l'organisation du travail*, 7.

⁷⁰Chevalier, *Lettres sur l'organisation du travail*, 11-23.

⁷¹Gildea argues that new/more reliable sources of food influenced health and longevity, in turn explaining drastic population growth occurring in Europe during the eighteenth and nineteenth century; Gildea, *Barricades and Borders*, 3-5.

⁷²Chevalier, *Lettres sur l'organisation du travail*, 16-19.

⁷³Modern economic theory might explain the impact of demographic shifts as labour supply exceeding labour demanded by employers. To explain concisely, in *product* markets firms supply and households demand; but in *labour* markets the relationship is reversed – labour supply is sold by households to the firms that demand labour. See Ronald G. Ehrenberg, Robert S. Smith and Richard P. Chaykowski, *Modern Labour Economics: Theory and Public Policy, Canadian Edition* (Toronto: Pearson Education Canada, 2004) 1-89. This is interesting in itself for the power labour can/has acquire(d) in its relationship to firms in labour markets, which is discussed in the next chapter. Generally speaking the discussion here informed Chevalier's thought on political economic theory. It seems possible to interpret his thought differently, however. The concept of organisation in Saint-Simon and Chevalier also implied that firms supply both products and work.

ruthless production and greed, devoid of human considerations. This is of paramount importance for interpreting Chevalier's work because poor living standards were a prevalent reality for the workers of France, worse still than during Saint-Simon's lifetime. Poverty was certainly not a new social phenomenon; however, wide scale poverty and want associated to industrial aggrandisement and urbanisation was, and Chevalier did not shy away from criticising the industrial system he himself held up as the key to social progress.⁷⁴ The second criticism was directed towards unproductive capital. War, be it civil, national or international, meant disorganisation for Chevalier. To be sure he spent his entire career arguing against military aggrandisement because of the numerous ways it debilitated industry and society.⁷⁵ The need to increase capital showed Chevalier how industrial capacity was wanting, while his criticism of existing capital stocks highlighted how industry was inadequately organised or blatantly counterintuitive to social well being. In 1848 expectations informed this discussion. If he heralded industry for its expected benefits, the actual industrial condition revealed that benefits of industry were not so widespread. He put a significant amount of trust in his expectations of industry, as the above discussion of capital and l'amélioration populaire showed, but frustrations towards the mechanisms for spreading these benefits directed his criticism.⁷⁶ So Chevalier's ideological thought demonstrated a critical

⁷⁴*De l'industrie manufacturiere en France* (1841) was a forty page article in which Chevalier discussed the lives of workers: lodging, food and diet, public hygiene, working conditions, and child mortality, to name a few topics. The purpose of his article was seemingly to make available the findings of Villermé's *Tableau de l'état physique et moral des ouvriers employés dans les manufactures de coton, de laine et de soies*. Louis René Villermé was a medical doctor and member of l'Académie des sciences morales et politiques; his work was published in two volumes in 1840. In 1848 Chevalier saw rampant disorganisation in productivity where institutions providing social safety nets for the retired or unemployed, for children, or even for expressing work grievances were non existent; Chevalier, *Lettres sur l'organisation du travail*, 161-173.

⁷⁵In the *Lettres sur l'organisation du travail* Chevalier extensively analysed (including tables and figures) French, British and American military budgets; Chevalier, *Lettres sur l'organisation du travail*, 225-254, in particular Lettre XVI: "Exemple de ce qu'on peut faire pour accroître rapidement le capital de la société. – Diminution de l'Etat militaire des nations" and Lettre XVII "Observation sur le budget militaire de la France pendant ces dernières années, et sur le système de recrutement." See also other examples on this topic in *La guerre et l'industrie* (1832), *Les fortifications de Paris* (1841) and *La guerre et la crise européenne* (1866).

⁷⁶Budgets, taxation, and tariffs were important mechanisms of transmission considered by Chevalier for their ability to impact production and the lives of workers. As such these mechanisms were an indirect criticism of capital by Chevalier. His insistence on reworking these mechanisms must be understood as a response to the changing industrial structure and what he perceived were new responsibilities for government and industrialists. For Chevalier budgets, taxation and tariffs had an impact on transmitting the benefits of industry; they influenced, for example, the salaries of workers and the cost of everyday necessities. Chevalier, *Lettres sur l'organisation du travail*, 255-285.

understanding of productivity and organisation as industrial society was changing; his Saint-Simonism revealed within the history of European industrialisation a poignant analysis that was not reproducing the perfect story of relations between capital, industry, industrialists, and working populations. In his work Chevalier also focused on individuals within the industrial structure – the wielders of capital as much as capital itself were responsible for transmitting the benefits of industry. Herein lies an important facet of Saint-Simon’s and Chevalier's thought: their understanding of the historical task of industrialists, capital and social organisation. I have attempted to show the primary tenets of Saint-Simon’s and Chevalier's ideological system, and have since attempted to demonstrate the intellectual connection between these authors by showing the prominence of industrial organisation in this ideological discourse. These considerations are not complete without an investigation of Saint-Simonian morality, to which this thesis now turns.

Consider Katheryn A. Lynch's work on moral values and ideology in the first half of the nineteenth century. Her analysis is important here to show variance between conceptualisations of morality and the individuals and groups discussing and creating this moral discourse. In *Family, Class and Ideology in Early Industrial France*, Lynch discusses policy making as a response to redress the severe social problems associated with industrial change and economic growth faced by working class populations. She shows how the viewpoints of the Social Catholics and moral economists came to dominate debates surrounding the organisation of social relations to improve conditions amongst working-class families. This conceptualisation, she says, included a clear middle class “model of values” to be imposed on the working-class family. Lynch also shows how policymakers believed solving the problems faced by working populations meant changing the behaviour of working-class families to emulate their so called successful bourgeois counterparts. The moral concerns surrounding working-class problems are addressed in the ideologies of Social Catholics and moral economists, says Lynch, but their

models suggest intervention in the private lives of workers.⁷⁷ It is interesting to think that the context of crisis informs as much the intentions of Social Catholics and moral economists as it did Saint-Simon and Chevalier. However, their methods of approaching and solving these problems differed significantly. Unlike the Social Catholics and moral economists, Saint-Simon and Chevalier did not subscribe to ideas that intended to redress social distress by placing the blame on the values of workers. Remember that poverty and unemployment were problems inherent within the industrial structure – they were proof for Saint-Simon and Chevalier that industry functioned badly. Morality for Saint-Simon and Chevalier signalled distancing and worsening social relations that went beyond the individual, the family or even class, that pointed to the availability of work and necessities, or problems of inadequate industrial organisation. To explore this further let us emphasise Saint-Simon's and Chevalier's thoughts on the moral characterisation of productive and unproductive.

Saint-Simon was concerned with morality but not with creating a new religion.⁷⁸ In *Du système industriel* he claimed that, from the perspective of morality, the upper classes were divided into two groups: “philanthropes” and “égoïstes.”⁷⁹ He used these terms broadly in his analysis of industrialists and social relations. Here Saint-Simon made the distinction between philanthropes, who in their association

⁷⁷Katherine A. Lynch, *Family, Class, and Ideology in Early Industrial France: Social Policy and the Working-Class Family, 1825-1848* (Madison, Wis.: University of Wisconsin Press, 1988) 1-5, 13-19.

⁷⁸In his work on l'Ecole Polytechnique, Gaston Pinet, like Janet, argued that Saint-Simon had no intention of creating a religion; Gaston Pinet, *Ecrivains et penseurs polytechniciens* (Paris: Paul Ollendorff, 1898) 161. See also Alfred Pereire, *Autour de Saint-Simon: documents originaux* (Paris: Honoré Champion, 1912) x. Saint-Simon placed significant emphasis on the moral values of the Christian past, and argued that the morality conducive to social organisation had been lost in a succession of generations and the development of clerical institutionalisation. Though his thought revealed a relationship between purpose and morality, between industry and mutual cooperation, Saint-Simon never lost focus of industry as the guiding force of social organisation – religion was not the primary force of social organisation. His morality was based on *existing* considerations of moral values taken from the past. If Saint-Simon challenged conceptions of morality in his day it was on the grounds that organisation and mutual cooperation had not been realised; Saint-Simon, *Du système industriel*, 287-292. Chevalier's morality also converged with Saint-Simon. He drew like Saint-Simon the moral aspects of organisation from the history of Christianity. But Chevalier valued morality as an element of social cohesion and was very critical of the Catholic Church, particularly for its conflicting interests with government institutions; Chevalier, *Introduction*, 461-464. There was no religious institution, no scripture which could or should guide society, only that organisation and mutual cooperation were deeply seeded social conditions. If Chevalier made any claim for altering morality it was on the basis of productive work and toil – travail – on which all, not only workers, needed to contribute their energy if change was to occur; Chevalier, *Lettres sur l'organisation du travail*, 339-340.

⁷⁹Saint-Simon, *Du système industriel*, 298.

with the public performed socially productive works, and égoïstes, whose social relations were often limited to smaller elite circles. He elaborated further: Saint-Simon also differentiated between “passion utile” and “passion nuisible,”⁸⁰ understood here as useful and disruptive characteristics. I wish to draw a connection between these moral concepts and the context of Drolet’s discussion of the Ideologues mentioned above, that is, between Saint-Simon’s characterisation of philanthropy, egoism, useful and disruptive passions, and the productive and unproductive characteristics of the idle and productive classes.⁸¹ Morality for Saint-Simon and Chevalier was imbued with a moral sense of conduct; they characterised industrial relations in terms that were productive and unproductive for the organisation of production and society. As discussed in Chevalier’s criticism of capital above, industry was unproductive and disorganised. His thought was interesting in the context of the revolutionary discourse of 1848, where the bourgeois was being attacked as “l’ennemie du peuple.”⁸² Chevalier argued that the misery of poverty and unemployment were no small concerns to be easily dismissed. He placed no blame on working populations for wishing to better their meagre existence by rising up so passionately.⁸³ What he perceived was unproductive, however, were the passions associated with violence, breaking of machinery, and civil war.⁸⁴ Precisely because of this violence he implored mutual benevolence – un besoin de solidarité – between workers and the bourgeoisie, as he saw nothing more unproductive to social cohesiveness than grudges held by/against the bourgeois or worker.⁸⁵ When considering Chevalier’s analysis of organising production, morality was certainly important. How important was class in these considerations of

⁸⁰Here the connection between both authors is also present. Saint-Simon used utile and nuisible to define these moral proclivities; Saint-Simon, *Du système industriel*, 286. In the *Lettres sur l’organisation du travail* Chevalier differentiated between useful and disruptive, but the vocabulary Chevalier used was “bon” and “mauvais”; Chevalier, *Lettres sur l’organisation du travail*, 84, 127.

⁸¹I am showing here simply a shift in vocabulary, from useful and disruptive in Saint-Simon to productive and unproductive in Chevalier. I use the latter from here for clarity.

⁸²Chevalier, *Lettres sur l’organisation du travail*, 88.

⁸³Chevalier, *Lettres sur l’organisation du travail*, 5.

⁸⁴Chevalier, *Lettres sur l’organisation du travail*, 209.

⁸⁵“Cette lettre était écrite plus d’un mois avant les événements terribles qui ont inondé Paris de sang, du 23 au 26 juin. Quelque coupable que soient les passions qui y ont été mises en jeu, quel qu’ait été le nombre des acteurs qui y ont pris part, je ne puis voir dans ces scènes de désolation qu’un argument de plus en faveur de ce que je recommande ici;” Chevalier, *Lettres sur l’organisation du travail*, 209.

morality? For Chevalier, like Saint-Simon, the useful and disruptive, the productive and unproductive, transcended narrow considerations of social occupation.⁸⁶ Still, both authors placed greater importance on the organisational responsibility of the industrialist, which suggests implications for understanding Saint-Simonism as a 'top-down' ideology. Morality was important for Saint-Simon and Chevalier not only for showing their expectations of the industrial system, but also demonstrated that individuals within this system had an important role in organising production through social relations. But if it emphasised moral relations that were to be developed in theory, Chevalier's discussion of responsibility was grounded in practical social and economic concerns that transcend theoretical ambiguities. His thought on how wealth was employed by those who had it was particularly interesting:

[L]e riche, qui veut faire apercevoir les millions qu'il possède en trouve l'occasion éclatante ailleurs que dans l'exagération de ses dépenses personnelles et le caractère à la fois stérile et ruineux des plaisirs qu'il se permet. Il consacre des sommes importantes à des objets d'utilité publique. Il souscrit largement à la fondation d'une école ou d'une université. Il fournit la dotation d'une chaire bien rétribuée pour y faire enseigner quelque branche de la science par un savant éminent [...].⁸⁷

Consider now his analysis on how funds (and the conflicting debates concerning these funds) were employed for maintaining expenditures on military aggrandisement or luxuries (luxure) meant to beautify Paris during the Second Empire:

Pendant qu'on ajourne indéfiniment, sous prétexte de manque de fonds, [...] on trouve sans peine les millions qui sont demandés, non-seulement pour maintenir et perfectionner notre état militaire, mais encore pour des dépenses de luxe [...]. Avec la moitié, avec le quart de la somme qui s'est dépensée, se dépense ou va se dépenser pour ouvrir au nouvel Opéra de grandes avenues d'accès, on eut doté Paris d'un ensemble d'établissements d'instruction primaire, moyenne et supérieure, solidement bâtis, bien disposés et munis de toutes les collections que comporte un excellent enseignement.⁸⁸

⁸⁶Drolet, "Industry, Class and Ideology," 1240-1241.

⁸⁷Chevalier, *Introduction*, 460-461. Note his usage of l'utilité publique; see the discussion of this concept and the underground tunnel railway in the third chapter.

⁸⁸Chevalier, *Introduction*, 315-316. These examples can be placed within the context of his ongoing debate, that which he himself called "ma polémique Haussmann," with the prefect of the Seine during the Second Empire; Marcel Blanchard, "Le journal de Michel Chevalier," *Revue Historique* (Paris, 1933), 133. This source, Blanchard notes, was donated by Mlle Flourens, keeper of some of Chevalier's correspondence and papers. The dates of this personal journal span from the 15 mars 1855 to 18 juillet, 1869, and provide some of Chevalier's thoughts while in the Conseil d'Etat during the Second Empire (1852-1870) on a number of interesting subjects. The tone of this journal is marked by Chevalier's stance to criticise the practices of government during his day, including commentary on a number of occasions concerning the Emperor Louis Napoleon. See the *Journal des Débats* of 30

These remarks were interesting by themselves for Chevalier's criticism of the unproductive use of capital the French state entertained or might entertain. But his perspective went deeper to the heart of debates that, for Chevalier, falsified (then and now) the discussion on important responsible expenditures of private and public funds: society's real loss – *la vraie perte* (opportunity cost) – was the forgone expenditure on education (human capital) spent instead on military aggrandisement or luxuries. Chevalier's analysis did not reject luxury. His thought showed that, instead of developing sterile projects that benefited the privileged, capital could be productively employed for raising the standard of living of a larger French demographic. So Saint-Simon and Chevalier transcended in some sense Lynch's analysis of morality and the perspective of the Social Catholics and moral economists. Her analysis will be discussed further in the final chapter. This nevertheless suggests the importance of Saint-Simon and Chevalier's social commentary: they challenged the morals and values of the leaders of society, not the poorest segment of the population; they challenged the leaders of industry and society to be productive and take responsibility for the problems of disorganisation because, as industrialists or public officials, they had the capacity to do so. The preceding discussion of ideology from the perspective of capital, social welfare and industrial organisation in Saint-Simon and Chevalier constituted what Saint-Simonism is.

September 1867 for an example of this polemic with Haussmann.

Chapter Two – Organising Industry in 1848: Chevalier and the French Social Intellectual Network

Non, l'économie politique [...] ne doit pas désespérer de [...] compter un jour [les socialistes] parmi ses disciples fervents. Dans l'avenir, elle devra certainement des progrès insignes à des personnes qui, dans ce temps-ci, lui auraient volontiers fait la guerre; car l'économie politique est exactement aux doctrines socialistes ce que la science chimique de nos jours est aux théories désordonnées des alchimistes.⁸⁹

Chevalier spoke these words at the reopening of the Collège de France on 28 February, 1849. Why study ideology during the nineteenth century? What is the significance of highlighting, in the previous chapter, the conception that industrial society is inadequately organised, that the capitalist system of production functions badly? What impact did this discussion, approached from Chevalier's perspective, have on ideological debates concerning the well being of the working class? This chapter is divided into two parts. The first contextualises ideology and the social intellectual network in France during the first half of the nineteenth century, with a particular emphasis on the state, while the second analyses the thought of Chevalier from the perspective of the *Lettres sur l'organisation du travail* (1848) and the social context of 1848. The aim is to highlight and comment on the political economy of Chevalier the Saint-Simonian and to elaborate on his thought within the French social intellectual network.

According to Ekelund and Hébert, “[the] nineteenth century was an intellectual battleground of sorts for literary, methodological, and [...] analytical skirmishes in the social sciences.”⁹⁰ A brief look at capitalism and socialism is useful to highlight a particular tone to the discussions taking place in the social intellectual network. I wish to highlight two different characteristics of capitalism, as an ideology of production and an ideology of appropriation. For Ritter the concept of capitalism has been taken up countless of times by many to the point that it is now left convoluted and ambiguous.⁹¹ I have no pretensions of solving any debates. These two characteristics are underlined to investigate what seems to be a link between capitalism, socialism and production, and to suggest how appropriation influenced

⁸⁹Michel Chevalier, “L'économie politique et le socialisme. Discours prononcé au Collège de France, le 28 février 1849, pour la réouverture du cours d'économie politique” (Paris; Capelle, 1849) 25.

⁹⁰Ekelund and Hébert, *A History of Economic Theory and Method*, 233.

⁹¹Ritter, *Dictionary of Concepts in History*, 25-29.

ideological debates concerning production within the social intellectual network. The industrial structure in which labour and capital are organised (adequately or not) to produce goods and services, and maximise profits, is understood here as the capitalist system of production. Political economists of the eighteenth and nineteenth centuries conceptualised this structure as a model of society, based on assumed patterns of economic relations and rational behaviour they firmly believed existed.⁹² Capitalism as a concept that criticised “the appropriation of capital by some to the exclusion of others” was first used in the mid-nineteenth century.⁹³ The critics who, generally speaking, questioned the validity of this industrial model of society came to be known as socialists; the resulting corpus of theories and discussions that emerged, in contrast to capitalism, formed the foundation of socialism. Socialism as an ideology included different approaches to the problems of production and distribution of wealth. But the actual method of reorganising the new social order was (and is) a serious point of contention. As per Ritter, Karl Marx and Friedrich Engels claimed to have demonstrated that the capitalist system of production was an inevitable step in the historical development of the industrial structure and society.⁹⁴ Though Marx and Engels criticised the ethics behind the capitalist system of production, they praised – like the majority of socialists – the development of science, technology and industry and the subsequent benefits that accompanied industrial expansion. Even capitalists argued, though in varying forms, that industrialisation and the progress of society went hand in hand. Since political economists were concerned with the production of wealth, and socialists with the equitable redistribution of wealth, both ideologies, to the disbelief of many within the social intellectual network in 1848, shared a commonality: the development of the industrial structure meant to improve social welfare. This is not to say that the grievances

⁹²See Hobsbawm's discussion of the development of political economy during the eighteenth and nineteenth centuries. If Chevalier discusses models and economic relations (so applies theory to people) in this sense, his *Lettres sur l'organisation du travail* reveal the important consideration that markets were imperfect in 1848.

⁹³Ritter suggested the possibility that 'capitalism' was first used by Louis Blanc in his *Organisation of Labour* (1850); see Ritter, *Dictionary of Concepts in History*, 26. Interestingly, the title of the 5th edition published in 1847 reads *Organisation du travail, corrigée et augmentée d'une Polémique entre M. Michel Chevalier et l'Auteur, ainsi que d'un Appendice indiquant ce qui pourrait être tenté des à présent*. See *Journal des Débats* (21 août, 1844 and 17 février, 1845) for an earlier expression of the polémique. The source of their disagreement was what motivated people in society, le devoir et l'égalité (Blanc) or la concurrence et l'intérêt personnel (Chevalier).

⁹⁴Ritter, *Dictionary of Concepts in History*, 26-27.

associated with capitalism were theoretical; rather, they were very real consequences of industrial growth, and it was precisely the feelings of frustration amongst the masses that critics of capitalism and the capitalist system of production wished to harness. However, it was arguably the negative connotations of the concept of capitalism as appropriator of wealth that emerged from the nineteenth century, while the progressive aspects of the capitalist system of production were not carried forward in the development of capitalism. Not surprisingly, as the class struggle became increasingly politicised during the nineteenth and twentieth centuries, the question of directing industry became of paramount importance.⁹⁵ How significant was revolutionary conflict for shaping ideological debates within the social intellectual network and perceptions of the industrialist⁹⁶ and socialist? As an idea and a group with their own expectations, how were workers perceived? How did workers shape discourse? The discussion of capital imbued the social intellectual network with a sense of urgency driven as much by workers as by social theorists. In the previous chapter the characterisation of Chevalier's ideological thought included an analysis of industry that intrinsically linked capital, social welfare, the standard of living, and production. He was attacked for taking this position. At first glance certainly for good reason: material prosperity was increasingly viewed as exclusive to wealthier groups of society.⁹⁷ Nevertheless Chevalier avidly took part in the discussion, and his commentary exemplified the ambiguous nature of capital, social welfare, the industrialist, the socialist, and industry within the social intellectual network.

Jeff Horn explores the issue of French industrialisation. The author is concerned with the investigation of accepted Anglocentric theories on industrialisation and the British model in relation to France. By tracing a pattern through consecutive historical periods – the end of the Ancien Régime to the

⁹⁵Ritter, *Dictionary of Concepts in History*, 420.

⁹⁶Capitalist was the word of the day. Since this work does not set out to challenge the meaning of “capitalist,” “industrialist” or “entrepreneur” (where perhaps difference exists) I use industrialist to be consistent throughout the thesis. Horn uses the term entrepreneur and I replace this with industrialist.

⁹⁷Hobsbawm showed that the consequence of political economic theorists arguing for the inevitable progress enjoyed by an industrial society was this exclusive nature of prosperity. In other words, boasted predictions of well being or happiness hardly extended to the largest majority of peoples. Hobsbawm's consideration of religious and secular distinctions in ideological thinking showed the difference between philosophical and material expectations that accompanied emerging modern conceptions of society, social prosperity and change; Hobsbawm, *The Age of Revolution*, 217-252.

end of the Restoration – Horn’s analysis identifies the importance of scientific processes and their long history as a characteristic of French industrial development. Moreover, Horn shows how these periods displayed continuity in like minded government policy, even between governments which seemed hostile to the previous one.⁹⁸ How significant are varying cultural and political perspectives for understanding French ideological thought, or a discussion of Chevalier's thought specifically? Horn considers scientific and political culture and the Physiocrats in the context of Industrial Enlightenment, a term referring “to a particular way of thinking that emphasised how 'useful knowledge' bridged the Scientific Revolution and the Industrial Revolution.”⁹⁹ Horn's interpretation of the Physiocrats is useful to begin the discussion of ideology and the French social intellectual network.¹⁰⁰ I wish to highlight one facet of Horn's discussion of Industrial Enlightenment, that is, the relationship between the Physiocrats, state policy and social prosperity. Consider his analysis of worker discontent, particularly the “machine question,” which Horn argues presented significant evidence of divergence between the French and British industrial model. For the author the breaking of machinery by the revolutionary masses was instrumental in forming the French government's approach to industrial relations – the 'threat from below' could not be ignored by policy makers.¹⁰¹ But unlike the example of the British government, that approached Luddism at baïonnette point,¹⁰² other means than the use of force were sought in France, especially after 1789, to resolve tensions between workers, industrialists and the state.¹⁰³ French officials sought non-violent solutions to

⁹⁸Jeff Horn, *The Path Not Taken: French Industrialisation in the Age of Revolution 1750-1830*, (Cambridge: The MIT Press, 2006) 1-16.

⁹⁹See Horn for an analysis of Max Weber, Margaret C. Jacob and Joel Mokyr's understandings of the historiography of Enlightenment and industrial culture; Horn, *The Path Not Taken*, 5-6. Also, see Ken Alder, *Engineering the Revolution: Arms and the Enlightenment in France, 1763-1815* (Princeton: Princeton University Press, 1997), Charles Coulston Gillispie, *Science and Polity in France at the End of the Old Regime* (Princeton, N.J.: Princeton University Press, 1980) and Charles Coulston Gillispie, *Science and Polity in France: the Revolutionary and Napoleonic Years* (Princeton: Princeton University Press, 2004).

¹⁰⁰See also Lavergne for a discussion of the Physiocrats (les économistes); Léonce Lavergne, *Les économistes français du dix-huitième siècle* (Paris: Guillaumin, 1870).

¹⁰¹See his discussion of “Machine-Breaking and *la menace d'en bas* in France” and the results on revolutionary politics after 1791; Horn, *The Path Not Taken*, 102-117, 118-125.

¹⁰²Horn, *The Path Not Taken*, 97-101.

¹⁰³Force was used during the Ancien Régime and during the revolutionary period, which Horn never discounts. At the same time it is the extreme cultural elements of the French population that helps explain for Horn the difference in attitudes of French policy makers towards machine breaking. Horn quotes Louis-Sébastien Mercier (commenting on the Gordon riots of 1780 in London in *Tableau de Paris*, 1782) “[t]he Gordon Riots 'took a course unimaginable

concerns expressed by workers, signalling the potency of labour frustrations and political culture to influence economic relations.¹⁰⁴ Horn's perspective of the Physiocrates highlights in the social intellectual network a moral character that was not synonymous with the typical understanding of industrial relations across the Channel. This is significant for the presentation of ideas discussed by Chevalier within this thesis, especially considering his thoughts on the pacification of worker/industrialist relations. Horn's study of the Physiocrates reveals a longstanding influence by French intellectuals and the state for directing industrial relations, and also how moral concerns influenced public policy.¹⁰⁵ The idea of state intervention, driven by intellectuals sensitive to social needs as a direct consequence of the workers' frustrations and expectations, shaped French social intellectual debates during the eighteenth and nineteenth century. Horn's interpretation is crucial to show that even without an official political voice workers were an important group capable of directing policy. Workers as an idea and group influenced the commentary of theorists and the social intellectual network, revealing that political culture was as important in France as scientific culture to redress the serious set of social concerns that accompanied industrial aggrandisement.

One way French intellectuals hoped to influence prosperity was through the culture of knowledge promoted within educational institutions. Consider two examples, l'Ecole Polytechnique and l'Ecole des mines de Paris. Ulrich Pfammatter discussed the history of l'Ecole Polytechnique and its role in forming modern architects and engineers. For Pfammatter, Polytechnique demonstrated the first attempt at solving the problem of merging theory and practice to meet the growing demands of industrialisation.¹⁰⁶ Prior to

by Parisians; for it appears that even in disorder the crowds were under some kind of control. For instance, a thing which a Frenchman can hardly credit; the houses of certain unpopular men were fired, but their neighbours not touched; our people in the like circumstances would show no restraint;" Horn, *The Path Not Taken*, 102.

¹⁰⁴Horn, *The Path Not Taken*, 122-123.

¹⁰⁵The Physiocrates were essentially absolutists; Lavergne, *Les économistes français*. However, to argue that the French state was authoritarian in economic matters is an over simplification, itself governed by ideological pretensions – the difference between “authority” and government power as a check against serious market oversights needs to be emphasised. I believe Horn's analysis reveals the necessity to differentiate further between Physiocrate and Manchester schools of thought. Chevalier was *not* a political economist of the Manchester school.

¹⁰⁶Ulrich Pfammatter, *The Making of the Modern Architect and Engineer: The Origins and Development of a Scientific and Industrially Oriented Education* (Basel; Boston: Birkhäuser, 2000) 11-12.

the inception of this institution in 1794, the problem of ‘practical science’ was taken up by d’Alembert, Turgot,¹⁰⁷ and Condorcet, Physiocrats (or individuals influenced by this school) that distinguished themselves as members of scientific academies but also held prominent government positions; their efforts to revolutionise teaching emphasised a technically oriented education focused on mathematics and physics with the express purpose of modernising the engineer.¹⁰⁸ Founding Polytechnique in 1794 was the Revolutionaries' answer to the pressing needs of training engineers to be employed in civil and military services and constitute an organisational corps to help administer the French state.¹⁰⁹ L'Ecole des mines can be understood in this same context; it was a finishing school where students honed the skills they acquired at Polytechnique, particularly as geologists and mining engineers.¹¹⁰ These institutions promoted a vision of industrialisation, one in which the state had a part in supplying/responding to the demand for scientifically trained individuals.¹¹¹ These institutions had a dynamic impact on culture in France, to the point that Michael P. Murphy argues these men represented a new social order of capacity and social engagement, merging the perspective of the engineer with the attitudes of the political official towards the public good into a corps of ingenieurs sociales.¹¹² The crucial point to consider was the curriculum at Polytechnique and l'Ecole des Mines during Chevalier's studies in the 1820s. This program was meant to solve the problem of merging theory and practice with the use of “vacation projects,” where students gained experience by taking part in work projects outside the classroom. Chevalier did a number of these

¹⁰⁷Interestingly, Anne-Robert-Jacques Turgot was administrator to the généralités of Limoges, where the Chevaliers and Garauds lived, from 1761 to 1774; Lavergne, *Les économistes français*.

¹⁰⁸Pfammatter, *The Making of the Modern Architect and Engineer*, 8-10

¹⁰⁹Pfammatter, *The Making of the Modern Architect and Engineer*, 21.

¹¹⁰Murphy, *Envisioning Romantic Political Economy*, 82. See also Louis Aguillon, “Notice historique sur l’Ecole des mines de Paris,” extrait des *Annales des mines*, 1889, from *Les ingénieurs des mines au XIXeme et au XXeme siècles* (<http://www.anales.org/archives/>) and Louis Aguillon, “L’œuvre du corps des mines au XIXeme siècle,” extrait d’*Ecole Polytechnique, Livre du Centenaire (1794-1894) tome III*, (Paris: Gauthier-Villars, 1897), from *Les ingénieurs des mines au XIXeme et au XXeme siècles* (<http://www.anales.org/archives/>).

¹¹¹For example, Alder discusses at great length the relations between the state, private industry, engineers, and national armaments production; Alder, *Engineering the Revolution*, 28, 45, 120, 129-130, 168-169, 224-225, 306-307.

¹¹²Murphy, *Envisioning Romantic Political Economy*, 67-78, 83.

individual and collaborative studies, including a thesis, in and outside France while at l'Ecole des mines.¹¹³ These institutions promoted what Murphy describes as the close study of “the interaction of people, natural resources, and machines.”¹¹⁴ He argues the *ingenieur sociale* acquired his authority as a trained commentator of public and industrial concerns by adding an “applied dimension to [his] theoretical training.”¹¹⁵ Murphy examines the militaristic nature of Polytechnique to further comment on the authority of the *ingenieur sociale*. His investigation shows that the school served as a training ground for military engineers well into the twentieth century, but he claims the militaristic nature of Polytechnique in the history of this institution is overemphasised, as a way to highlight pacifism in Chevalier's formative years. The development of the history of Polytechnique by Murphy reveals a curious thought: if the school did serve military purposes he argues there was a unique “fleeting and ironic historical situation” in the 1820s where militaristic motives found less expression both in the curriculum and the engineers' intentions.¹¹⁶ His argument is interesting at least in its application to Chevalier. Pfammatter and Murphy agree on how significant the Polytechnique model was as a systematic curriculum which was propagated throughout the United States and across Europe. The success of the school and its model, as per Pfammatter, was largely due to Polytechnique teaching staff. These men not only made the model a success but helped in its propagation by way of association within intellectual circles and societies. On the other hand, he also notes that “[s]preading the study of the exact sciences was considered to be the most forceful means of advancing the excellence of applied industrial technology.”¹¹⁷ Polytechnique and l'Ecole des mines exemplified a score of French attitudes towards

¹¹³Murphy provides the three titles produced by Chevalier: “Mémoire sur l'affinage du fer dans la vallée de Vicdessos” in 1827 in the French Pyrénées, “Mémoire sur la géologie des environs de Framont; sur le gisements et l'exploitation des minéraux et du fer qui s'y trouvent” in 1828 in Alsace-Lorraine, and “Mémoire sur le gisements, l'exploitation, la préparation mécanique, et le traitement du minerai de plomb dans le Münsterthal” in 1829 along the Rhine; see Murphy, *Envisioning Romantic Political Economy*, 85-93. Interestingly, Chevalier had to end the 1829 trip early because of work stoppage at a nearby lead mine. As per Murphy, Chevalier still took the opportunity to comment on the “unlivable” (Chevalier's words translated) working conditions at the mine. However, Murphy presents this information without taking the opportunity to further analyse Chevalier's formative political economy.

¹¹⁴Murphy, *Envisioning Romantic Political Economy*, 85.

¹¹⁵Murphy, *Envisioning Romantic Political Economy*, 84.

¹¹⁶Murphy, *Envisioning Romantic Political Economy*, 79-80.

¹¹⁷Pfammatter, *The Making of the Modern Architect and Engineer*, 25.

industrialisation that joined together science, technology, education, and the state, highlighting direction or intervention in economic and social concerns. These attitudes arguably helped shape the French social intellectual network and Chevalier's views on industrial relations. Below I discuss further in detail the political economy of Chevalier; here I emphasise that this formative instruction was significant, in the same light as his experiences at Ménilmontant, for showing his thought on industrial organisation from the technical standpoint of the engineer. This training coupled with his exposure to Saint-Simon's political economic considerations developed in Chevalier the capacity (capacity he honed as years progressed) and drive to analyse the inadequate organisation of industry during the nineteenth century.

Central for reinterpreting Chevalier was his ability to accumulate capital.¹¹⁸ The above discussion of Polytechnique and l'Ecole des mines highlights the process by which he acquired his capacity as an engineer, or developed human capital. His understanding of, and exposure to, political economy must also be included in this process. Chevalier and the Saint-Simonians were a group of intelligent, educated and capable young men, highly motivated by a conception of history in which they consciously (and perhaps haughtily) interpreted their role as agents of social change.¹¹⁹ It was by accumulating capital and talent

¹¹⁸Murphy writes: “[w]hile comfortable by 1845, he could never quite accumulate enough money nor enough political support on his own, and without that support, he was unable to move ahead with the urgency he thought his large plans required;” Murphy, *Envisioning Romantic Political Economy*, 313. By 1864 Le Van-Lemesle argues the members (Chevalier included) of the Société d’économie politique formed a “micro-société, dont la forte influence est due à l'action individuelle et à l'insertion sociale de certains de ses membres.” She continues: “[p]lus important pour notre étude sont les fonctions sociales de la fortune [...]; le groupe a une puissance sociale réelle [...]” See Le Van-Lemesle, *Le juste ou le riche*, 107, 139-145. Her discussion is not a study of the Saint-Simonians during the Second Empire, however. See Eckalbar and the Crédit Mobilier during the Second Empire; John C. Eckalbar, “The Saint-Simonians in Industry and Economic Development,” *American Journal of Economics and Sociology*, 38(1): Jan 1979. Chevalier the Saint-Simonian acquired further human and physical capital as his life and career progressed; driven and conscious of his capacity, the possibility of his ideas materialising increased along with his ability to accumulate this capital. The underground railway linking France and Britain, discussed in the third chapter, provides an example of Chevalier's access to capital and his desire to impact industry.

¹¹⁹See Spitzer for his account of the Saint-Simonian cohort of 1820. He emphasises an optimistic attitude or hope for the future as a prevailing feature of their social consciousness; and one piece of evidence suggesting this leads Spitzer to the gathering by Saint-Simon’s grave side, where Dr. Etienne-Marin Bailly’s discours highlighted the “legacy of hope” in the future. Spitzer goes to great length to show the influence of Saint-Simon and his synthesis of the new age on members of the cohort of 1820: “[they] were longing for an optimistic culture, an end to the contemporary period of transition;” forged in “an atmosphere of institutional stasis and subterranean crisis. Its collective trauma was not the Revolution but the collapse of the Empire.” See Spitzer, *The French Generation of 1820*, 10, 147, 152. Spitzer's understanding of the Saint-Simonian cohort is broad. If showing association between Saint-Simonians is cumbersome, Spitzer's (and Pinet's) interpretation of Saint-Simonian consciousness seems interesting for considering the link between social and intellectual components of ideology.

that Chevalier and the Saint-Simonians influenced industry. Gaston Pinet's work on l'Ecole Polytechnique is interesting for presenting the Saint-Simonians through this different lens. This thesis has so far challenged a number of assumptions about those involved in this movement, particularly Chevalier. As per Pinet, the Saint-Simonian movement had tremendous impact on the students of l'Ecole polytechnique: "L'Ecole polytechnique devenait le foyer [du saint-simonisme][...]. Quand la révolution de 1830 éclata, [l'Ecole] avait fourni les principaux apôtres et l'armée de missionnaires qui allaient donner aux idées saint-simoniennes [...] un mouvement d'expansion immense."¹²⁰ The official historical position was that the movement disbanded in 1832. However, Pinet stated that, once the experiment at Ménilmontant ended,

[I]es savants revinrent à leurs études abstraites. Les économistes reprirent et creusèrent les problèmes relatifs à la production et à la distribution des richesses. Les ingénieurs et les industriels se tournèrent du côté des travaux publics et des opérations de l'industrie, appliquant pour leur propre compte les théories du maître.¹²¹

This capacity of the Saint-Simonians is important for Saint-Simonism. Recounting the exploits of various Saint-Simonians or affiliates of the movement, Pinet showed how individuals such as Gustave d'Eichthal, Henri Fournel, Emile and Isaac Pereire,¹²² Jean Reynaud, Paulin Talabot, Frédéric Le Play, to name a few, held prominent positions as French industrialists, bankers, engineers, scientists, or government officials *after* 1832.¹²³ For Pinet these men had no political aspirations to topple governments but were most of all interested in the development of commerce and industry:

[L]'esprit ouvert aux sentiments humanitaires, bercés par les illusions généreuses de la jeunesse, ils ont été séduits par une formule claire et attrayante 'A chacun selon sa capacité, à chaque

¹²⁰Pinet, *Ecrivains et penseurs polytechniciens*, 144. Also, this notion of expansion is corroborated by Moses and Rabine when showing the significance of the propagation of the movement outside France, across Europe and into the United States.

¹²¹Pinet, *Ecrivains et penseurs polytechniciens*, 163.

¹²²See Eckalbar's discussion of the Pereires in "The Saint-Simonians in Industry and Economic Development" and Hobsbawm, *The Age of Revolution*, 176-177. See also Alfred Pereire, *Autour de Saint-Simon: documents originaux* (Paris: Honoré Champion, 1912).

¹²³Pinet, *Ecrivains et penseurs polytechniciens*, 170-178. Pfammatter also corroborates the successes of the "corps polytechnicien" made up of dynamic enterprising types increasingly fulfilling important social roles; Pfammatter, *The Making of the Modern Architect and Engineer*, 90-91.

capacité selon ses œuvres,¹²⁴ par l'idée d'une organisation sociale fondée sur l'association du capital et du talent [...].¹²⁵

Pinet also commented on Chevalier, providing a kind of biographical summary of his works and successes as a writer, engineer, and political figure:

Longtemps il défendit les idées saint-simoniennes par la parole, par la presse, par tous les moyens de propagation, ne reculant pas devant les conséquences à perte de vue. Ses connaissances étendues de savant et d'ingénieur, ses observations précises, ses aperçus pittoresques, ses exposés clairs, incisifs, ses descriptions variées et originales [...] excitèrent l'intérêt universel.¹²⁶

What does this perspective reveal about Saint-Simonism after 1832? Chevalier retains the ideas but not the title of Saint-Simonian. Pinet's discussion nevertheless suggests that Saint-Simonism survived after 1832 as an expression of Saint-Simon's original ideas on industrial organisation. Because of his access to capital, Chevalier the Saint-Simonian impacted in specific ways the industrial structure of France – he believed in the importance of science and technology and the institutions of finance and government for organising industry.¹²⁷ Capital and talent (human capital) were important for interpreting Saint-Simonism, that is, access to capital gave Chevalier the means to elevate his social position, but also distinguish himself as a producer from the unproductive idle class and challenge the leaders of society. At the same time distinguishing the productive from the appropriating (unproductive) aspects of capital within the concept of capitalism was phenomenally contentious. Words (ideas) like capitalism and socialism, concepts analysing existing social relations, were important as the product of discussion and frustration within the social intellectual network. In this discussion access to capital was affiliated to appropriation,

¹²⁴Saint-Simon's (in)famous words.

¹²⁵Pinet, *Ecrivains et penseurs polytechniciens*, 270-271. Pinet's discussion is certainly broad, and he decidedly views Saint-Simonians in commerce and industry in a positive light. I do not wish to overstate such a position considering the impact of science and industry in the periphery. It nevertheless seems interesting to consider how Saint-Simonians like Chevalier, the Pereires and Le Play, who retained close ties throughout their lives, formed an intimate group of highly motivated producers (travailleurs) positioned in specific social roles to organise industry. Chevalier, positioned in the Conseil d'Etat during the Second Empire, was able to approach the organisation of industry from within French government.

¹²⁶Pinet, *Ecrivains et penseurs polytechniciens*, 166.

¹²⁷Pinet, *Ecrivains et penseurs polytechniciens*, 180. These cultural beliefs and values about science, industry and government were shared within the structure of Western society. See N. Parker William, "Europe in an American Mirror: Reflections on Industrialization and Ideology," in *Patterns of European Industrialisation: The Nineteenth Century*, edited by Richard Sylla and Gianni Toniolo (London; New York: Routledge, 1991) 80-91.

meaning Chevalier's ideas and capacity could not resonate with workers and other social theorists.

However, his political economic considerations were not meant as a challenge to frustrated workers but to the inadequate organisation of capital in 1848.

En France, aujourd'hui,[...] les systèmes socialistes règnent et gouvernent. C'est un sénat assez confus.[...] Un fait est certain: la constitution sociale tout entière est en question [...]. Il s'agit de savoir quel est le meilleur parti à tirer des ressources de tout genre que possède la société [...] pour donner aux masses populaires la plus forte proportion possible de bonheur.[...] Si la discussion pour ou contre les différents systèmes est parfaitement libre, si la violence n'intervient pas avec ses fureurs hébétés, tout se passera bien, et l'issue devra convenir à tous le monde.[...] Il se dira beaucoup de folies, qu'importe? Pourvu qu'on se borne à les dire, et que le public ait la faculté de les siffler.¹²⁸

Chevalier's *Lettres sur l'organisation du travail* are significant, as the title indicates, to consider his discussion of organisation in the context of the social intellectual network. This document was a compilation of letters written between March and June of 1848, and as such it gains significance as a primary source produced during the Worker Revolutions. The direct involvement of workers in the discussion of organisation was revolutionary. “[A]ux applaudissements d'un peuple immense qui entourait l'hôtel de ville et couvrait les places publiques,” began Chevalier, “l'amélioration du sort des travailleurs” was proclaimed as the primary concern of the Second Republic. Chevalier questioned the provisional government's ability to keep this important promise.¹²⁹ In the *Lettres* he investigated the organisational systems of Charles Fourier, Louis Blanc and Olinde Rodrigues – three different perspectives within the social intellectual network. His analysis compared, accepted or rejected these varying perspectives based on an existing body of knowledge – the discussion of political economy.¹³⁰ I

¹²⁸Chevalier, *Lettres sur l'organisation du travail*, 139-140.

¹²⁹Chevalier, *Lettres sur l'organisation du travail*, 1-2.

¹³⁰Why was Chevalier writing and debating profusely on political economy? To popularise this growing intellectual field of study that was, for the author, so relevant in the process of understanding society's social and economic relations. Chevalier was a populariser, which speaks once more of his intellectual connection with Saint-Simon, who in his arguments stressed the importance of discussion and demonstration (see *Du système industriel*). Le Van-Lemesle criticised this aspect of Chevalier's political economy, essentially suggesting the discipline in France was held back under his tutelage because of his lack of theorising; see Le Van-Lemesle, *Le juste ou le riche*, 174. On the other hand, Schumpeter writes: “It was not that [he was incapable of analytic economics]. Chevalier [...] was beyond doubt a very intelligent man whose work of factual analysis, were comparison admissible, many of us would place above that of mere analyst. But all the energies of many of the able men who took to economics were absorbed by the immediately practical [...]. Chevalier's systemic work [...], the harvest of his lectures at the Collège de France that kept strictly on the surface of things, bears saddening witness to this – though, for the kind of performance it

analyse here aspects of Chevalier's consideration of these other systems, most notably state intervention in industry and the redistribution of profits, to comment on his thoughts on capital within the organisation of industry.

Chevalier held in high regards both Fourier as a social theorist and the system he developed. He praised the latter on a number of significant points, such as appreciating the merits of competition and for respecting the family, inheritance and property rights. Also, “[c]hez [Fourier], la répartition des produits se fait sur la triple base du *capital*, du *travail*, du *talent*.”¹³¹ Based on these criteria it was not difficult to see why Chevalier appreciated the material aspects of Fourier's thought. Chevalier disagreed with the moral implications of his system, however. For example, for Fourier work in the phalanstère became desirable or attractive (*travail attrayant*), with all manners of tasks conducted by hordes of happy, complacent workers. Here Chevalier arguably found himself on familiar grounds: the failed experiment at Ménilmontant informed his criticism of Fourier's phalanstère. Because of this Chevalier's social commentary took on the character of drawing from his own experiences.

Je conviens que je ne puis guère parler des hommes tels qu'ils seront dans deux milles ans. Les seules que je connaisse quelque peu sont ceux de notre époque; mais ce sont aussi les seuls que Fourier lui-même ait pu observer, et c'est sur eux qu'on aura à procéder demain si aujourd'hui on bâtit un phalanstère.[...] Passer subitement d'une organisation à une autre complètement différente n'est pas chose qu'on obtienne des hommes; vous l'aurez de quelque-un [...] mais vous ne l'aurez pas de la masse [...].¹³²

Cependant je souhaite que les livres de Fourier soient lus. A mes yeux, c'est un recueil de fables ou il y a infiniment de fantaisie, mais des fables dont la morale est bonne, car elles concluent toutes à l'association, à la solidarité, et il n'y a pas un sentiment dont il importe plus que le public s'imprègne.¹³³

A brief look at Chevalier's interpretation of Fourier's system reveals considerations of experience in his analysis of organisation. He praised capital and rejected *travail attrayant* on the basis that one had proven results while the other would be achieved by abruptly changing society's morals. This should not be

was, it merits admiration rather than contempt;” Joseph A. Schumpeter, *History of Economic Analysis* (New York: Oxford University Press, 1954) 497.

¹³¹Chevalier, *Lettres sur l'organisation du travail*, 141.

¹³²Chevalier, *Lettres sur l'organisation du travail*, 151, 152.

¹³³Chevalier, *Lettres sur l'organisation du travail*, 154.

understood as a complete rejection of Fourier by Chevalier. Highlighting discussion and experimentation in Chevalier's approach to social systems reveals his open mindedness towards social change by acknowledging how solutions to social problems could be found in the socialist's blueprint. Crisis implied exactly that for Saint-Simon and Chevalier: serious reflection on the current role of institutions and leaders in a disorganised industrial structure. Praising experimentation, he warned reformers in the provisional government: “avant de désorganiser l'industrie nationale et la société [...] attendez au moins que vous ayez fait un essai. Vous faut-il cinq millions, dix millions, demandez-les au ministre des finances; mais [...]ne prenez pas l'industrie nationale] tout entière pour le sujet de vos expériences.”¹³⁴ Chevalier brought this dynamic interpretation of institutions and leadership to the social intellectual network and to his analysis of current and possible forms of industrial organisation.

If Chevalier appreciated Fourier, the same can hardly be said of his interpretation of Louis Blanc. The latter was a French journalist and historian. He was also a member of the provisional government during the turbulent February and June months of 1848, and it was this capacity as government official positioned to regulate the French economy that arguably drove Chevalier to comment on the feasibility of his system.¹³⁵ To show this consider the role Blanc attributed to the state in organising French industry. The organisational system proposed by Blanc promised workers equality of wages and job opportunities by participating in a national network of workshops (*ateliers sociaux*) established in various industries, by decree, and funded through the governmental budget.¹³⁶ Chevalier argued in general against the form of state control of industry advocated by Blanc,¹³⁷ but was clear concerning his position on budgets: “Les

¹³⁴Chevalier, *Lettres sur l'organisation du travail*, 43.

¹³⁵The February Revolution was significant; it reorganised the political apparatus, remaking the constitution of 1791 and ushering in the (short-lived) Second French Republic. Blanc held a position as a legislator in the French government assembly so he had significant power to legislate policy concerning industry; Chevalier, *Lettres sur l'organisation du travail*, 26. If his political economy was easily dismissed (wanting to reorganise industrial relations without consideration of financial systems in 1848), Blanc's position in government (elected by masculine universal suffrage) was the embodiment of working class frustrations until then unheeded since 1789.

¹³⁶For Blanc, the industrialist could choose to implicate his capital in this network voluntarily; the point, however, was that returns on capital would be levied in the budget; Chevalier, *Lettres sur l'organisation du travail*, 27-28.

¹³⁷Actually Chevalier argued that some state owned monopolies, such as public utilities, were justifiable on the basis of cost, efficiency and scale economies, or, more importantly, if appropriation led to limiting abuses. In the case of armaments production Chevalier argued that the state must appropriate such industries for security reasons and

personnes qui éditent ces fables et celles qui les accueillent ont dans l'esprit une idée qui leur répondre à tout: on se tira d'affaire avec l'argent du gouvernement.”¹³⁸ An emphasis on state financing of industry represented mismanaged if not completely unrealistic fiscal policy for Chevalier.¹³⁹ So when he concluded that “[l]e projet de convertir le trésor national en une banque [qui commanditera les associations volontaires de travailleurs] est une des plus fâcheuses illusions[...],”¹⁴⁰ his analysis emphasised that financing industry through the budget was unrealistic if funds were taken from an inflated money supply or from non-existent state revenues.¹⁴¹ According to Chevalier, if the provisional government persisted with these measures the state would not only go bankrupt but it would not inspire confidence with creditors and thus would be unable to finance its national workshops. Chevalier was rejecting the system proposed by Blanc but also his position as leader in government on the grounds that Blanc misunderstood the current role of institutions in relations to capital for organising industry in 1848.

Chevalier's criticism of Blanc in the *Lettres* was particularly oriented towards Blanc's understanding of how incomes were generated, or how profits were redistributed. Chevalier argued labour

regardless of costs. “Mais en pareil cas, le monopole de l'Etat n'est pas un progrès: c'est le correctif d'un vice du caractère national, et le progrès consiste à faire disparaître le vice avec tout ce qui s'ensuit.” The state could not intervene directly in markets; instead its role according to Chevalier was regulating and monitoring as a means towards controlling and limiting abuses; Chevalier, *Lettres sur l'organisation du travail*, 119, 139-141. See also Shepherd and Shepherd, *The Economics of Industrial Organisation*, 5th ed, for a discussion of monopolies, economies of scale and natural market structures in modern Industrial Organisation theory.

¹³⁸Chevalier, *Lettres sur l'organisation du travail*, 54.

¹³⁹Chevalier explained his position by developing for his readers the history of credit, tax collection and money creation in relation to the French state. He was very critical of the exploitation of the state by private creditors under the Ancien Régime. For this reason Chevalier argued that control of tax collection and regulating money (minting) was not only justifiable, it was necessary as a means towards taking ownership of fiscality. Moreover, money creation, such as the production and distribution of the *assignat* by the state during the revolutionary period (roughly 1791-1797), was wholeheartedly deplored – for Chevalier the state could not print its way out of financial difficulty. Chevalier's context of the financial role of the state in industry reveals that the government had fiscal responsibilities bound by actual income, that this responsibility was hardly synonymous with an uninhibited expansion of the money supply, and that the French state was answerable to higher financial powers, such as the Bank of France or the Haute Banque, that weighed stability, confidence and risk as the basis for informed investment. Chevalier's commentary was also a criticism of particular onerous conditions of the banking industry prior to 1848; Chevalier, *L'organisation du travail*, 112-116. See also Chevalier, *La Monnaie, cours d'économie politique*, 2e édition (1855).

¹⁴⁰Chevalier, *Lettres sur l'organisation du travail*, 121.

¹⁴¹As Chevalier suggested would be the case if the state appropriated the development of French rail networks, for example: “Le trésor, dont la situation est déjà si laborieuse, aurait trente ou quarante million de plus de rentes à servir et cent millions de plus par an à fournir pendant plusieurs années pour l'achèvement des lignes qui sont en cours d'exécution. Ce serait de propos délibéré marcher à la banqueroute;” Chevalier, *Lettres sur l'organisation du travail*, 118.

could not claim the returns of capital because workers had no investment in the firm's factors; in fact they were seen as a factor in the productive process. Was this understanding of labour new? What impact did this have on workers, to be understood as a factor in the productive process? No small wonder that in 1848 political economy was viewed as a cold, heartless discipline.¹⁴² Chevalier phrased prevailing attitudes towards incomes and profits as such:

Qu'est-ce qui règle les salaires? Nos réformateurs répondent: C'est la cupidité du maître qui voit le travailleur à sa merci et en profit indignement [...].¹⁴³

Plusieurs des personnes qui on recommandé le système de la participation, depuis le 24 février, y ont vu surtout un moyen de changer la répartition actuelle des produits, en ôtant à l'un pour donner à l'autre.¹⁴⁴

Interpreting in depth Chevalier's political economy is not possible here. Still some of the elements are useful to discuss relationships between workers, industrialists, capital, and profits. For eighteenth and nineteenth century political economists the model for scientific enquiry was the whole of society, increasingly viewed in a global context – theirs was a macroeconomic perspective.¹⁴⁵ The arguments developed by Chevalier in the *Lettres* drew authority (even if contested) from a body of theoretical knowledge that analysed relations between households, firms, financial intermediaries, government, and the factors of production.¹⁴⁶ Factors in the productive process essentially comprised capital and labour, and in society's economic relations capital, as per Chevalier, was not owned but rented by the firm. And so was labour. According to Chevalier, the cost of capital included payments on physical capital used by the firm, capital reserve requirements and interest payments,¹⁴⁷ while the cost of labour represented the wages paid to workers.¹⁴⁸ These were the requirements of the industrialist and the firm acting within

¹⁴²Chevalier, “L'économie politique et le socialisme,” 4.

¹⁴³Chevalier, *Lettres sur l'organisation du travail*, 66.

¹⁴⁴Chevalier, *Lettres sur l'organisation du travail*, 202.

¹⁴⁵Arguably the difference between political economy and modern economic theory is the development of the microeconomic perspective.

¹⁴⁶Those like Blanc who offered different interpretations of industrial organisation within the social intellectual network looked to these same institutions to redress social problems.

¹⁴⁷Chevalier, *Lettres sur l'organisation du travail*, 186.

¹⁴⁸The wage was the price of labour paid by the firm. If Chevalier believed in accepting a market price, he also believed the working wage gave insufficient subsistence to the worker. Subsistence and replenishing physical exertion were the costs of economic relations incurred by the worker (and savings was his/her capital stock). For

society's industrial relations. Adding together these costs of capital and labour gave a measure of economic profits for the firm, or the industrialist's income. Regardless of his analysis of the costs of production, social theorists believed industrialists were hoarding excess wealth gained from unequally distributing the profits of industry, to the detriment of workers. Indeed this was not entirely untrue.¹⁴⁹ And so the conflict between industrialists and workers was qualified as an unfair distribution of wealth, and capital seen as the instrument of working class oppression.¹⁵⁰ To be clear Chevalier was not against profit sharing. He considered cases, such as F. Bartholony's compagnie d'Orléans and M. Leclaire's painting firm, where profit sharing associations¹⁵¹ formed between industrialists and workers by choice.¹⁵² He also discussed Olinde Rodrigues's¹⁵³ constitutional project to praise his discussion of measures industrialists and workers might employ to begin thinking about profit sharing associations, or organising worker/industrialist relations. Though Chevalier appreciated the content of Rodrigues's project he rejected its form, that is, he applauded Rodrigues's insights into the problem of formulating associations of workers and industrialists operating within a forum of discussion to obtain results on profit sharing, yet deplored the idea of legislating these types of associations as universally mandatory.¹⁵⁴ Chevalier's discussion of the Le Chapelier Law of 14 Juin 1791 emphasised this further. Why was this law important and what implications did it have for interpreting Chevalier's analysis of organisation in 1848? His commentary revealed that workers in 1791 were not free due to the restrictions placed on association, that

Chevalier, the price of labour should adequately reflect these requirements on the worker; Chevalier, *Lettres sur l'organisation du travail*, 4, 261-262.

¹⁴⁹The relationship between factors and profits was (and is) skewed if the firm owns – instead of renting – the capital stock; see N. Gregory Mankiw and William Scarth, *Macroeconomics Fourth Edition* (New York: Worth Publishers, 2011) 58-59. In this sense if the owners of capital (household) and the firm are the same person, positioned to draw greater profits from industry, the potential for an increase in the gap between levels of wealth becomes very real, and, circumstances permitting, arguably the source of the problem of accumulation of power. This thesis presents Chevalier as a pertinent individual to study because he did not own significant amounts of capital until later in life.

¹⁵⁰Hobsbawm, *The Age of Revolution*, 242. What has not been emphasised was the implications of Chevalier's insights: human capital was the property of labour.

¹⁵¹Association for Chevalier was defined broadly; here it can be understood as the social relations that resulted from the interactions of workers and industrialists in the context of work. Another type of association suggested by Chevalier, for example, were workers gathering together to take classes after work hours; Chevalier, *Lettres sur l'organisation du travail*, 185.

¹⁵²Chevalier, *Lettres sur l'organisation du travail*, 186-189.

¹⁵³One of the more prominent early Saint-Simonians.

¹⁵⁴Chevalier, *Lettres sur l'organisation du travail*, 189-192, 207.

impeding rights to gather in mutually beneficial groups was guaranteed to keep the individual (the worker in this case struck by poverty and unemployment) perpetually isolated in the face of hardship and social change.¹⁵⁵ He criticised the government of 1791 and extended this criticism to that of 1848, regardless of ideological polarity. Intervention by legislating labour relations was not conducive to social well being according to Chevalier, not when gatherings of workers and industrialists were prohibited nor when profit sharing initiatives were dictated as universally mandatory. Again experimentation gains significance in Chevalier's argumentation, here as a means of reaching a consensus to avoid revolutionary conflict. The analysis of his experiences at Ménilmontant and Fourier's system informed his thought that changing social morality was no easy task. Profit sharing was possible, Chevalier argued, but not by way of Blanc's understanding of fixing returns on capital and labour – for Chevalier this plan ignored the context of capital, labour and financial markets in 1848. His arguments against Blanc were made to dispel the notion of excessive profits, not challenge the need to increase incomes earned by workers or their access to wealth. If Chevalier applauded the initiatives of profit sharing industrialists and the content of Rodrigues's project, he was insistent production needed to increase for this type of participation to be widely applicable. The standard of living is society's stock of wealth, which can be measured by the sum total of incomes generated by the working population. Chevalier estimated (for the sake of argument) France's national income at approximately ten billion francs. Blanc's attempts at redistributing income equally amongst French citizens was for Chevalier a false conception of the nation's wealth – the result of said redistribution would be insufficient to sustain even the barest existence.¹⁵⁶ For my protagonist, “[l]e vrai problème social aujourd'hui n'est pas de changer la distribution de la richesse, c'est d'en accroître la production;”¹⁵⁷ he believed only the accumulation of capital, or the increase in the positive correlation

¹⁵⁵Chevalier, *Lettres sur l'organisation du travail*, 180-181.

¹⁵⁶Chevalier, *Lettres sur l'organisation du travail*, 8-10.

¹⁵⁷Chevalier, *Lettres sur l'organisation du travail*, 202.

between society's capital stock, capital and labour productivity,¹⁵⁸ and productive output, could increase income and wealth and thus the standard of living in France.

But capital, the tool oppressing the working classes, was being destroyed all over France in 1848. Horn's analysis of the machine question has interesting implications here.¹⁵⁹ Chevalier was commenting on the breaking of machinery as a direct consequence of the struggle between workers and industrialists in Paris. I do not wish to challenge Horn's conception of the influence of labour relations on the industrialist's desire to invest in capital – he clearly revealed the importance of machine breaking as a source of labour power (market power) and consciousness to be gained from political culture.¹⁶⁰ What of the negative consequences of machine breaking, however? Acts of violence focused on capital impacted industrialists' but also workers' incomes. The context of political culture helped define conceptions of wealth, incomes and capital and identify differences, perceived in terms of class differences, between workers and industrialists within the social intellectual network. For Chevalier, the destruction of capital highlighted negative aspects of labour relations that could not be praised: revolution and machine breaking disorganised industry.¹⁶¹ He was commenting on large industrial centres such as Lyon, Rouen and Mulhouse. Consider his calculations of losses experienced in Paris alone: “[a]insi le département de la Seine, si le travail continue d’être paralysé, perdra cette année plus de sept cents millions par le fait seul de la suspension de l’industrie, indépendamment de toute autre perte et du reversement déjà consommé de tant de fortunes.”¹⁶² Chevalier was not solely concerned with the interests of firms and industrialists. If they suffered loss of incomes and investment, the breaking of machinery meant poverty and

¹⁵⁸Capital and labour productivity were linked to improvements in science and technology, which also encompassed education and skill; Chevalier, *Lettres sur l'organisation du travail*, 206. This was crucial: for political economists of the eighteenth and nineteenth century, only technological improvements imparted real growth in the long-run, a perspective entirely shared by Chevalier. See the concept of technical economies in the third chapter.

¹⁵⁹Though he considered a different historical period his analysis still seems relevant for this thesis.

¹⁶⁰Horn, *The Path Not Taken*, 90, 117.

¹⁶¹“En temps de révolution [...] les capitaux s'alarment toujours; les capitaux effrayés, en se retirant, paralysent le travail;” Chevalier, *Lettres sur l'organisation du travail*, 90.

¹⁶²Chevalier, *Lettres sur l'organisation du travail*, 95. If the sense of urgency is lost, Pinkney nevertheless corroborates this negative growth for French industry in 1848. The graph included shows a lull of -4% for that year alone, a disastrous figure by today's standards; Pinkney, *Decisive Years in France*, 23-24.

unemployment for the working classes. Chevalier's unwavering praise of capital was not a naive celebration of bourgeois values; the serious social problems associated to industrial growth were, again, not to be blamed on workers frustrated by their material positions.

To the disbelief of Blanc, the objective of alleviating working class hardships was paramount for Chevalier: “[Les ouvriers] demandent qu'on s'occupe d'eux sérieusement; ils l'exigent même, parce qu'on ne l'a point fait depuis un demi-siècle, ainsi qu'on l'aurait dû.”¹⁶³ What informed his discussion for wanting to improve the lives of the working classes? This thesis would be incomplete without a mention of Chevalier's morality – the principles of 1789. These were of paramount importance for Chevalier as the product of the Enlightenment and the discussion/challenge in the social intellectual network leading up to 1789. If he emphasised competition and individual liberty in the *Lettres*, he was careful to acknowledge that the French Revolution impacted the lower classes differently than the middle classes. On this subject, Chevalier is worth quoting at length:

En 1789, lorsque la classe moyenne entra dans l'arène en disant: “Les grands ne sont grands que parce que nous sommes à genoux; levons-nous!” que lui manquait-il pour être libre, c'est-à-dire pour avoir le plein exercice de ses facultés, dans l'intérêt de l'Etat comme dans le sien propre? Il ne lui manquait rien que le droit de participer au gouvernement du pays. Pour elle, devenir libre c'était retirer le monopole des hautes fonctions civiles, militaires ou religieuses, des mains des privilégiés, du cercle de la cour. Riche et éclairée, en état de se suffire et de se conduire, la classe moyenne voulait se soustraire au régime du bon plaisir et du monopole, et ce point une fois gagné, elle devait se trouver en jouissance de la liberté. Pour les masses populaires, la liberté se présente avec un caractère différent. La plus dure servitude qu'elles subissent est celle de la misère, et c'est la misère qui tient tout leur être dans l'abaissement. La réforme des institutions publiques, telle que la classe moyenne put et dut la concevoir en 1789, était celle qui convenait à des gens dont l'existence matérielle était assurée; pendant les sept siècles qui s'étaient écoulés depuis la création des communes, elle avait amassé, à la sueur de son front, ce qui donne l'aisance. Mais quand il s'agit des ouvriers, il faut se dire qu'ils souffrent, que la pauvreté est un boulet qu'ils traînent et qui les empêche d'avancer dans quelque direction que ce soit [...].¹⁶⁴

So if the Tiers état were equally granted rights in 1789, Chevalier argued that material differences between the lower and middle classes left workers in a position unable to benefit from the principles meant to encourage prosperity. Consider further his analysis of the historical accumulation of capital in

¹⁶³Chevalier, *Lettres sur l'organisation du travail*, 98.

¹⁶⁴Chevalier, *Lettres sur l'organisation du travail*, 5.

France. Accumulation was for Chevalier a matter of time and patience for the industrialist, for the worker and for society.¹⁶⁵

[L]e capital des sociétés modernes est encore bien faible en comparaison, non pas seulement de ce qu'on pourrait désirer, mais de ce qu'on sent qu'il devrait être quand on songe que ce que nous en avons entre les mains, nous générations du XIXe siècle, représente les épargnes de plusieurs milliers d'années.¹⁶⁶

Centuries of accumulation were necessary to increase the material conditions of French society.

Chevalier's understanding of the history of capital accumulation showed how the middle class overcame political frustrations and prejudices with time, perseverance, and, ultimately, by the strength of their material positions in society. If the worker was unable to benefit from the same principles that freed his/her industrial counterpart this was due to differing contexts of accumulation. Chevalier's discussion of government in the social intellectual network represented one aspect of his criticism of industrial organisation: markets were not as free as they were made out to be in 1789 or 1848. This is no small consideration for those today who look to these periods in the past and presume the opposite. The significance of this for understanding crisis and industrial organisation in Saint-Simon, and Chevalier (and Rodrigues) is paramount. Chevalier understood this system to be imperfect and as such argued the need, like Saint-Simon, to fix disorganised industrial relations.¹⁶⁷ It was not even that Chevalier thought redistributing profits of industry was inappropriate (taxation on incomes is government redistribution); no, Chevalier was challenging Blanc's understanding of organisation and the misrepresentation of *how* government leaders were to approach the problem. Rapidly growing industrial society presented the

¹⁶⁵See how Chevalier described accumulation and investment for the industrialist and the worker; Chevalier, *Lettres sur l'organisation du travail*, 225. Political economists discussed theory and practice in the *long-run*, without differentiating fully between the contemporary moment and the future. Chevalier understood working class frustration was a consequence of poverty in the present; yet he nevertheless emphasised time and patience for achieving economic prosperity. Did Chevalier's understanding of poverty, time and patience signify an understanding of this difference between the short-run and the long-run during the nineteenth century? Chevalier, *Lettres sur l'organisation du travail*, 206.

¹⁶⁶Chevalier, *Lettres sur l'organisation du travail*, 226.

¹⁶⁷“Notre législation civile elle-même, toute moderne qu'elle est, est déjà surannée par quelque côtés; il est encore plus vrai de dire qu'elle est incomplète par d'autres, parce que depuis quarante ans la société a marché.[...] Il y a donc à rétablir l'harmonie entre notre droit civil et notre droit économique, [...] [mais][i] ne s'agit pas de porter la hache sur le monument que le génie de la civilisation moderne a élevé à la France renouvelée.” Chevalier, *Lettres sur l'organisation du travail*, 256, 258.

reality for Chevalier in 1848 that the worker was not only at a disadvantage but he/she remained in this position unless market oversights *present during the nineteenth century* were balanced by transmission mechanisms. The implication of Chevalier's critique of the organisational structure of society was the differentiation between the ability of workers and industrialists to accumulate capital. Because of this difference – the favourable position of the industrialist and his accumulated capital – Chevalier emphasised the responsibility of industrialists for organising work in 1848.¹⁶⁸ Industry for Chevalier in 1848 had the capacity yet this capacity was disorganised. His commentary must be understood as a criticism, not of workers, but of the industrialist commanding capital from positions of social power. Destruction of capital by workers during the revolutionary months of February and June was nothing compared to centuries of French military expenditures – generations of accumulated human and physical capital wasted and destroyed was a far more consequential source of poverty and industrial backwardness.¹⁶⁹ Militarisation, especially when financed through government budgets, was synonymous with inadequate organisation of capital for Chevalier. In the thick of ideological debates Chevalier was attempting to disprove the need of remaking society; he believed the necessary structure had been established in 1789. His point in the *Lettres* was to rework and add to this structure the institutions missing to address the needs of the population and society; however, further consideration of his Saint-Simonism reveals that the serious challenge to inadequate organisation of capital in the *Lettres* was directed towards unproductive and idle wealth rooted in financial and government institutions.

The goal in this chapter consisted of exploring ideology to contextualise Chevalier's Saint-Simonism. Labour frustration in 1848 was the driving force of social commentary. Discussions of political economy were important within the French social intellectual network; the challenge by workers shaped the thought of Chevalier and other social theorists. In 1848 industrial relations were the focal

¹⁶⁸Chevalier, *Lettres sur l'organisation du travail*, 222.

¹⁶⁹“Comment ne somme-nous pas plus riche?” asked Chevalier. Capital gaspillé and passion destructive were the words used by Chevalier, the same vocabulary used by Saint-Simon in *Du système industriel*. Chevalier, *Lettres sur l'organisation du travail*, 227-229.

point of debates, and interestingly so was the notion of state intervention. The question was not *if* but *how* the state should intervene: Horn revealed Luddism was quelled in Britain with the use of government sanctioned military force, while the polemic between Blanc and Chevalier revealed varying degrees of direct or indirect roles for the state in industrial relations. Discussion of debates within the social intellectual network also revealed that capital acted as the basis for the capitalist system of production but also the various socialist and communist systems. If Fourier, Blanc and Rodrigues pointed out serious moral concerns (concerns arguably shared by Chevalier) they still utilised capital (and money) in their blueprints for transforming society. What was Blanc's network of national workshops if not capital directed by the state as an attempt to solve labour concerns? If Ritter highlighted the ambiguous nature of ideological debates concerning the meaning of capitalism and socialism, the context of Chevalier's *Lettres* revealed these concepts to be no less clearly defined. Chevalier was a capitalist; but as an intellectual both praising production and criticising appropriation he also fit the definition of socialist. The negative connotations associated to capitalism as a concept of appropriation originated from the negative connotations associated to capital – “[l]e capital est le vampire auquel il faut faire rendre gorge.”¹⁷⁰ If the positive aspects of capital were lost in debates taking place within the social intellectual network, this perception was arguably one of the causes. In 1848, regardless of Chevalier's poignant analysis or perhaps even because of it, the industrialist was targeted as the cause of working class frustrations. Patience was an interesting concept used by Chevalier in his arguments; he implied that disorganisation could be fixed with time, serious discussion and building on existing industrial relations between workers and industrialists. This was Chevalier discussing crisis and industry from the perspective of Saint-Simonism. Chevalier's ideas on capital, social welfare and industrial organisation are important for this thesis to investigate the capacity of one ideologically driven industrialist and his attempts at materialising adequate organisation of capital. The dynamic character of his relation to capital is the focus of the next chapter.

¹⁷⁰Chevalier, *Lettres sur l'organisation du travail*, 70.

Chapter Three – Chevalier, Saint-Simonian Industrialist and Grand Infrastructure Projects

Les puissances européennes ont en ce moment sous les armes trois millions d'hommes, dont l'entretien, avec celui des places fortes et du matériel de guerre, peut être évalué à 1,500 millions de francs. Si pendant douze ans cette somme était appliquée à la réalisation du [système de la Méditerranée] que nous venons d'esquisser [...], le monde aurait changé de face sans que les peuples eussent augmenté d'un centimes leurs budgets.¹⁷¹

There were real and fictional aspects to Chevalier's ideas on les voies de communications in *Le système de la Méditerranée* (1832). Was Chevalier the author fiction in 1867? Were his ideas fiction in 1875?

Claire Goldberg Moses and Leslie Wahl Rabine and Katrine A. Lynch help develop an answer to these questions. In this chapter I discuss further the capacity of Chevalier the industrialist. Evidence directing this investigation is taken from his *Introduction to the Rapports du Jury International* of the 1867

Universal Exhibition in Paris and his involvement with the Société du Tunnel Sous-Marin entre la France et l'Angleterre in 1875. From this perspective I complete Chevalier's definition of industry by adding l'industrie intelligente and l'utilité publique to his Saint-Simonism. The final word on fiction goes to Mary Louise Pratt and the discussion of ideology in the colonial context.

The research produced by Moses and Rabine on the Saint-Simoniennes¹⁷² helps to conceptualise Chevalier the author. The concept of “fiction” employed by Moses and Rabine addresses concerns with accurately representing difference.¹⁷³ Fiction considers the author both in the social context and as the theme in a written work. For Moses and Rabine, the Saint-Simoniennes were not recognised anywhere

¹⁷¹Michel Chevalier, *Politique industrielle et le système de la Méditerranée* (Paris, 1832) 148.

¹⁷²Grammar here is important; this title arguably encapsulates for Moses and Rabine the difference between women and men in the Saint-Simonian movement.

¹⁷³Their approach was a response to concerns of post-structuralists such as Michel Foucault, who, as per Moses and Rabine, challenged the methods of both the historian and the literary critic to understand and recreate adequately conceptions of difference. Moses and Rabine consider the nuances of analysing “social practices” and “signifying practices” through context and texts respectively. The historian (Moses) constructs meaning by contextualising the subject through texts, but is questioned by post-structuralists in her methods for properly recreating “experience” by way of interpreting social practice through texts. For the literary critic (Rabine) constructing meaning seems apparently less challenging: words used by the author define the signifying and discursive practices of the text in question, thus revealing the process by which meaning is produced and transformed by the author studied. However, a problem also arises in the literary critic's method in the form of “productive silences” of the “uncontextualised biographer:” literary theory ignored the person behind the text unless first reconstructed in social context. These combined methods of Moses and Rabine formed an interdisciplinary approach to their study of the Saint-Simoniennes of the 1830s; Moses and Rabine, *Feminism, Socialism, and French Romanticism*, 1-5.

else but in their texts because of the conflicting relation present between reality and text, between their marginalised selves in the social context of early nineteenth century France and the vision of their textual selves. “In their utopian vision,” says Moses and Rabine, “the women sought not only to build a new society but to build one in which their textual selves could be realised as socially recognised individuals.”¹⁷⁴ Can Chevalier the author be considered fiction? Was his person or ideas socially recognised? I am not applying Moses's and Rabine's concept of fiction to Chevalier in an attempt to misrepresent their analysis of the problem of gender in Saint-Simonism. They demonstrate clearly the extent of social difference between the Saint-Simonian men and the Saint-Simoniennes.¹⁷⁵ Chevalier drew authority from a number of plausible sources, such as the training and education he received as an engineer, his ability to discuss political economy and, importantly, his capacity to accumulate capital. If these forms of authority presented themselves in varying degrees throughout his life, claiming this authority as fiction would deny the power of the engineer, the political economist and the industrialist in the structure of French society at a time of industrial expansion. He can thus easily be placed at the opposite end of the spectrum discussed by Moses and Rabine – as an author in the social context and the representation of themes in texts, he was hardly fictitious.¹⁷⁶ The moment of choice at Sainte-Pélagie represented only the possibility of marginalisation for Chevalier. His conscious decision to focus on industry rather than questions of gender was perhaps his understanding that the Saint-Simonian men erred in their approach to gender. If Chevalier was stigmatised for his association to Saint-Simonism throughout his life, this only caused controversy amongst squabblers and hardly impeded the ability for his ideas to be heard, publicly or through text. The discussion below of the *Introduction* and the

¹⁷⁴Moses and Rabine, *Feminism, Socialism and French Romanticism*, 5.

¹⁷⁵See Moses and Rabine for a discussion of difference and equality between the Saint-Simonian patriarchy and the Saint-Simoniennes; Moses and Rabine, *Feminism, Socialism, and French Romanticism*, 17-84.

¹⁷⁶Women had authority in France during the period of the Saint-Simonian movement; the issue was that, in terms infinitely worse than today, this authority was not publicly recognised. The shift to *Enfantin's* doctrine meant that the Saint-Simonienne discourse of Claire Bazard, for example, was put aside; Moses and Rabine, *Feminism, Socialism, and French Romanticism*, 12-13, 45-46, 65-66.

underground railway tunnel shows this further. Due to his ideas on industry he was not marginalised, because, generally speaking, these were at the forefront of social concerns in 1832, 1848 and 1867.

From Lynch I take intention as an important concept to interpret further Chevalier's mentality or ideological consciousness. In her work she focuses on the ideological modes of interpretation of Karl Marx and Karl Mannheim to explore how policy makers thought between 1825 and 1848. Lynch argues Marx's analysis of ideology as "universaliz[ing] social judgements" offered insight into the bourgeoisie's way of conceptualising the world as one "human condition."¹⁷⁷ She appreciates this as an interesting perspective with which to focus on newly developing attitudes imbedded in policy makers.¹⁷⁸ At a time when policy making geared toward family reform, an emerging model of values and behaviours was shaping the consciousness of the bourgeoisie based on interpretations of itself as the "legitimate guardians of French society's interests."¹⁷⁹ Her discussion of Mannheim focuses on recreating the context of thought in which policy was created. To reinforce this discussion Lynch quotes R.G. Collingwood, who stated that "[in] order to find [the author's] meaning you must also know what the question was (a question in his own mind, and presumed by him to be in yours) to which the thing he has said or written was meant as an answer."¹⁸⁰ So for Lynch understanding intention implies the need to focus on prevailing contextual themes and questions as a window into the author's mentality, in this case the nineteenth century intellectual or policy maker.¹⁸¹ Universalising social judgements, self-interpretations and mentality are important components for my discussion of Chevalier's work. As I attempt to argue later on, these concepts change according to the context of his analysis. For Lynch, intention is significant in the debate

¹⁷⁷Her analysis of Marx and Marxists is more complicated. Lynch rejects certain aspects of this mode of thinking but emphasises Marx's critique of ideology for his "insight into the evolution of bourgeois social consciousness[...]" Lynch, *Family, Class and Ideology*, 7.

¹⁷⁸Lynch, *Family, Class and Ideology*, 8.

¹⁷⁹Lynch, *Family, Class and Ideology*, 13.

¹⁸⁰Lynch, *Family, Class and Ideology*, 5-6.

¹⁸¹Lynch actually discusses motivation and intention. From what can be understood, scrutinising motivation can be difficult; this concept implies searching for meaning after a work has been produced and seeking to "unmask" the author "by attempting to penetrate their minds in search of the 'real' motivations behind their efforts," which she argues can lead to "suspicion" and "radical scepticism"; Lynch, *Family, Class and Ideology*, 27. At the same time ignoring the profit motive seems ridiculous.

surrounding the historical interpretation of humanitarianism. Here she argues it is problematic to consider humanitarianism as selfless and disinterested, revealing what she believes is a critical problem in the “historicity of moral values.”¹⁸² Lynch claims that eighteenth century humanitarians believed their interests to be reconcilable with those of society. As such, Lynch advocates in favour of scrutinising intention as a way to focus research on the relationship between the observer and society and the intended change.¹⁸³ Having introduced fiction and intention I take these concepts and apply them to my analysis of Chevalier the author of texts, specifically focusing on an analysis of his ideas concerning industry.

Consider his socio-economic background as a first step towards contextualising the social themes of Chevalier's thought and texts. As per Murphy, I wish to highlight that Chevalier's family was from working class origins, their position at the turn of the nineteenth century at best characterised as the modest living of skilled artisans, shopkeepers and competent traders. In 1806, when Michel was born, Jean-Baptist, Chevalier's father, was an administrator in the Napoleonic system of prefecture.¹⁸⁴ The improved financial security this position offered was not typical of his working career and as such must not be emphasised as the first step to defining the socio-economic background of the Chevaliers. Prior to the birth of their eldest son,¹⁸⁵ Jean-Baptiste and Marie, Chevalier's mother, experienced hardship and instability like many other families trying to make an existence during and after the Revolution: Jean-Baptist then traded in grain and wine – a precarious line of work during the revolutionary period. At the same time his occupation as a trader showed Jean-Baptist was by no means part of an impoverished

¹⁸²Lynch, *Family, Class and Ideology*, 24-25.

¹⁸³Lynch, *Family, Class and Ideology*, 28.

¹⁸⁴Murphy investigated the Chevalier family tree, tracing relations on his father's side to the seventeenth century, and his mother's, Marie (Garaud), to approximately mid-eighteenth century. Murphy lists apothecary, lace maker, baker, and aubergiste as examples of the type of work practised by the Chevaliers and Garauds in Limoges prior to the birth of Michel. Murphy notes one exception, Marie's father Grégoire Garaud, who, trained as a baker, turned grain trader and managed to amass a significant amount of wealth. Murphy makes a curious observation about class concerning Grégoire, claiming “it would take two decades for him to truly amass the wealth one might associate with the merchant-class haute bourgeoisie.” Nevertheless Murphy's discussion is significant to show how Grégoire's capacity to acquire wealth resulted in him being able to leave his daughter Marie a dowry of 2000 francs. This small fortune was instrumental, as Murphy shows, during times of hardship for Marie and Jean-Baptist. Murphy, *Envisioning Romantic Political Economy*, 51-56.

¹⁸⁵Marie Chevalier, Michel Chevalier's older sister, died at the age of 15 possibly of smallpox; Murphy, *Envisioning Romantic Political Economy*, 63.

French demographic.¹⁸⁶ Considering this socio-economic background, how fictional were Chevalier's ideas, argued in his *Lettres sur l'organisation du travail*, concerning concepts such as travail, the family and inheritance, association, and capital formation/accumulation? These theoretical concepts discussed by Chevalier gain importance because they gave to his argumentation a sense of practicality drawn from his family history – Chevalier argued for the importance of hard work and patience because his immediate family was able to elevate its material position.¹⁸⁷ Here travail reveals its dual sense in Chevalier's thoughts on organisation, both as a capacity *to work* but also the necessity of *having work*. Association also has interesting implications for Chevalier once approached with a better understanding of the importance of familial interrelationships: when times were tough for Chevalier's parents, Jean-Baptist found work in his brother-in-law's auberge on la place de la Fraternité. His capacity as a wine and grain trader would have proved useful in this establishment. Chevalier's thoughts on the formation and accumulation of capital were also informed by his socio-economic background. Jean-Baptist's and Marie's capacity to accumulate wealth was what allowed their children, Michel in particular, to pursue a type of education that elevated his position in society. Human capital as capacity for skills, hard work, and intellectual development was intrinsically linked to material well being for Chevalier and his parents alike. The practical ability to develop human capital influenced Chevalier's thought and texts. Chevalier was not born into the haute bourgeoisie, as might be believed considering the magnitude of his career. Chevalier the industrialist was, to use the cliché, self-made. But to validate this statement it must include an understanding of capital and wealth passed down through the family, which as per his discussion of property and inheritance Chevalier fully recognised. To strengthen this position, consider aspects of his personal life. On 16 April, 1845, he and Emma Fournier married; they would have four daughters.¹⁸⁸ Now son-in-law to a prominent industrialist in the département of l'Hérault, Jean Barthélemy-Réné Fournier,

¹⁸⁶Murphy, *Envisioning Romantic Political Economy*, 58-60.

¹⁸⁷I have no evidence to examine this argument and the accuracy of this statement for his relatives, but Murphy's discussion on Chevalier's immediate family certainly reveals this.

¹⁸⁸Walch, *Michel Chevalier*, 58-59.

the marriage did much to secure Chevalier's material position and place the Chevaliers among the important industrialists of the region. His ability to draw on his own personal history and that of his family arguably strengthens his thoughts and questions this understanding that his social commentary was fictional – the social practices of his person and family enforced the signifying practices of his texts. More than this his conception of history and political economy gave depth to his belief in the long process of industry and capital accumulation, but also differences in available opportunities between classes in this context. This is not to say that Chevalier was not universalising the interpretation of himself and his family condition, however. Since the discussion of ideology necessitates a serious examination of capitalism, the accumulation of capital and the appropriation of the system of exchange increasingly in the hands of the few, I continue the discussion of fiction from the perspective of one of the few and explore the consequence of Chevalier's efforts and thoughts on grand infrastructure projects, first in Europe and then on a global scale.

As president of the international jury of the 1867 Universal Exposition in Paris Chevalier wrote the *Introduction*, a lengthy document introducing the encyclopedic tomes describing everything (and everyone) to be found at the Exposition. The tone of this work was different from his *Lettres sur l'organisation du travail*. Chevalier wrote the *Introduction* with a celebratory approach towards the achievements of science and technology and their impact on society and industry from an international perspective in Europe and on the planet. Chevalier attempts nothing short of painting the picture of Western society as it stood triumphant at the end of the 1860s.¹⁸⁹ The *Introduction* was Chevalier's conscious effort to reveal to his readers the merging of theory and practice – throughout this work he praised above all else the duality of scientific advancement and technological application and their impact on people and social environments.¹⁹⁰ Chevalier's insistence that technological progress, in conjunction

¹⁸⁹Though there were representatives from other non-European nations at the Exposition, I say Western society because, as discussed further below, Chevalier's discussion of science, technology and industry, everything about his descriptions of people, places and things, was clearly that of a European observer comparing the rest of the world in Western terms.

¹⁹⁰For example, the first pages of the *Introduction* were reserved for defining concepts, such as *richesse*, *puissance* productive and capital, while the final section discussed grand infrastructure projects.

with scientific research, was the best means to impart real social growth was in essence the nineteenth century economist's raw understanding of the concept of technical economies.¹⁹¹ A number of interesting advancements were vividly described by Chevalier. To give a few examples, he discussed at great length the perfectibility of raw materials, such as iron and other metals, wood, ice, sulphur, coal, and petroleum, in industry; the extension of machinery and tools used in the productive process as well as various other uses, including printing, clock making, medicine, surgery, and dentistry; natural phenomena and forces employed in new ways as electricity, compressed or hot air, water pressure, steam, and natural gas for lighting; and the improvements brought through chemistry in agriculture and the use of fertilizers, as well as in the art of photography, bronzing and engraving, sculpting, and glass making. These advancements were perceived by Chevalier as real benefits to be gained by society by organising science, technology, and industry.¹⁹² Consider the impact on hygiene of the production of ice and its many uses in commercial transport, refrigeration, in homes and in hospitals,¹⁹³ or the distribution and filtration of drinking water via aqueducts to urban centres and the development of sewer systems.¹⁹⁴ These technological advancements represented for Chevalier serious considerations on the benefits of machines and public works. Consider also his treatment of wood and coal as more than raw materials employed in industry. Certainly they were valued like other commodities, but Chevalier's discussion revealed an understanding that these resources were finite. Unlike coal, trees could be replanted, but his analysis went further by imploring the present generation to examine its use of resources and be constantly vigilant and innovative, and to think outside of the national context to the possible global consequences of mismanaging the planet's resources.¹⁹⁵

¹⁹¹Shepherd and Shepherd define these concepts as such: "Technical economies of scale are those arising from the actual physical organisation of production activities. They reduce the ratio of inputs to outputs, thereby achieving a genuine increase in economic efficiency and a reduction of costs. These are true social gains [...]. Pecuniary gains are merely a matter of money, not of real efficiency. They occur mainly from lower input prices paid by the firm. The firm's accounting costs are reduced, but not from any change in the real methods of production." See Shepherd and Shepherd, *The Economics of Industrial Organization*, 155-156.

¹⁹²Arguably also organising wealth/money in this process.

¹⁹³Chevalier, *Introduction*, 93-98.

¹⁹⁴Chevalier, *Introduction*, 209-212.

¹⁹⁵Conceptions (likely kept within a regional context) Chevalier had also developed in his early works as a mining engineer from 1827 to 1829; Murphy, *Envisioning Romantic Political Economy*, 88.

Chevalier's use of scarcity (*rareté*) and time revealed his important considerations of the past, present and the future of industry but also natural environments.¹⁹⁶ What he called “l’industrie intelligente,”¹⁹⁷ I would like to argue, defined his conception of scientific advancement and technological improvement and the dynamic relations of these concepts to industry. Productivity was measured in terms of GDP, but measuring national income in monetary terms should not cloud the fact that (without ever rejecting the profit motive) science and technology for Chevalier stimulated real growth.¹⁹⁸ To emphasise here the concept of technical economies has important significance for discussing ideology, specifically the image of Chevalier the industrialist and the conceptualisation of Saint-Simonism. This conception of technical economies can be used to differentiate between innovative practices and purely pecuniary driven behaviour¹⁹⁹ during the 1860s and 1870s, when Chevalier was arguably secured in his capacity as an industrialist. To develop this line of argumentation further might have interesting implications for understanding Saint-Simon's and Chevalier's ideas on organisation, productive and unproductive wealth and the industrial structure which made up the contested middle ground between capitalist and socialist systems of thought during the nineteenth century. Capital, productivity, wealth, and the standard of living, discussed in the first chapter, reveal that for Chevalier it was science and technology that could raise social well being. However, if the *Introduction* was a celebration of the advancements of industry since 1848, he was clear throughout this work that industry still lacked organisation. European society had progressed but still he insisted on the need to organise unproductive capital to raise further the standard of living in France.²⁰⁰ So the social practices of Chevalier the industrialist, who had progressed in

¹⁹⁶Chevalier, *Introduction*, 51-59.

¹⁹⁷Chevalier, *Introduction*, 56.

¹⁹⁸Chevalier, *Introduction*, 10-18.

¹⁹⁹Pecuniary behaviour aptly referred to by Engels as the “pocketing of dividends, tearing of coupons, and gambling on the Stock Exchange, where the different capitalists despoil one another of their capital”; Friedrich Engels, “Socialism: Utopian and Scientific,” from *The Marx-Engels Reader*, 2nd edition, by Robert C. Tucker (New York; London: W.W. Norton & Company, 1978) 711. This commentary by Engels is useful as a definition of pecuniary behaviour; it seems unlikely he would have spared Chevalier from this description, though.

²⁰⁰See his criticism of government spending on military expenditures before the development of primary, secondary and higher education (or the development of human capital) and *la vraie perte sociale* in chapter one; Chevalier, *Introduction*, 298-321.

terms of material prosperity, informed his celebration of industry in the *Introduction*, or the signifying practices of this text. At the same time, his political economic considerations in this text revealed that the social context of industry in 1867 was inadequately organised, suggesting that the social practices of one industrialist hardly represented as the norm the social practices of European industrial society.

Throughout this thesis I have made the claim that Chevalier was a Saint-Simonian all his life.²⁰¹ The historiography of Saint-Simonism should consider more seriously the intellectual connection of Saint-Simon and Chevalier, but also the consistency of their ideas and goals. The *Introduction* by Chevalier was quintessentially Saint-Simonian in character. Emphasising from this text the tangible works that make the leap from pages to the real world solidifies the theoretical and practical dimensions of Saint-Simonism. Few ideas were more decidedly Saint-Simonian than grand infrastructure projects.

For Chevalier, one answer to industrial organisation was les voies de communication. Three grand infrastructure projects can be discussed during the nineteenth century, though perhaps with different contextual implications: the Panama and Suez Canals²⁰² and the tunnel traversing under the Channel (la Manche) to link France and Britain via railway. Focus here is first given to the latter. Chevalier's part in this project is not well known, underlining once more the recurring historiographical theme that clouds the life and works of my protagonist. Anthony Selwyn Travis's work on the tunnel railway is an excellent description of the technical process behind the creation of this infrastructure project, interesting for both the engineer and historian.²⁰³ Chevalier is mentioned on a number of occasions by Travis, which is significant, but he emphasises a decidedly British political narrative and the examination of the part played by Chevalier in this project is cursory. Travis describes quite well the

²⁰¹Moncure Robinson provided interesting insights into the personal life of Chevalier and the thoughts that occupied “the last moments of his life.[...] I speak knowingly on the subject,” he wrote, “having been a recipient during his last fatal illness [...] of eight letters [...] in which the submarine tunnel, and other subjects of public concern, were referred to, and discussed by him.” Robinson, “Obituary Notice of Michel Chevalier,” 34.

²⁰²Chevalier discussed avidly the Suez Canal in the *Introduction*; however, I focus only on the Panama Canal (further below) because of his direct attempts to 'improve' the isthmus. Pinkney wrote that Chevalier's *L'isthme de Panama* (1844) was “the first overt French expression of interest in a canal across Panama;” Pinkney, *The Decisive Years in France*, 148.

²⁰³Anthony Selwyn Travis, *Channel Tunnel 1802-1967* (London: Peter R. Davis, 1967).

important political wranglings taking place over the course of one hundred sixty years of debate concerning the tunnel railway. What shines through is not the important technical and industrial developments and accomplishments occurring in the 1870s on both sides of the Channel, when construction actually began, but a narrative of political and military fear that, in short, was the real reason the tunnel railway was not completed until the end of the twentieth century.²⁰⁴ Imagine the frustration such fear would have produced for Chevalier the pacifist, who in 1869 presided over the second assembly of the Ligue internationale de la paix.²⁰⁵ One interesting (and underrated) fact in the historiography of Chevalier was his lone senate vote against approving war credits in the budget prior to France's engagement with Prussia in 1870.²⁰⁶ This was arguably why Chevalier withdrew from French politics after 1870. Chevalier's description in the *Introduction* of the necessary works needed to attempt this endeavour reveals concerns that were far from political.

[L]e souterrain pourrait n'être qu'à soixante mètres au-dessous de la haute mer, et c'est par des motifs de sécurité qu'on propose, avec raison, de l'établir à plus de cent mètres au-dessous de ce niveau. Les indications que fournit l'étude géologique des deux rivages du détroit sont rassurantes, en ce que [...] le terrain serait facile à percer. On a lieu de supposer qu'entre Calais et Douvres ce serait de la craie, partout ou à peu près. En même temps qu'elle présente peu de résistance au mineur, la craie est imperméable.²⁰⁷

Concerned naturally with possible fissures giving way to ruptures and flooding, he continued:

C'est une question sur laquelle on ne pourra s'édifier que par une exploration préalable, au moyen d'une galerie de rivage à rivage. Quelques failles peuvent se rencontrer dans la craie ou les autres terrains imperméables; mais une galerie qui a été proposé, dont la dépense ne serait pas énorme, éclaircirait parfaitement la question de savoir s'il en existe et si elles sont de nature à empêcher le souterrain.²⁰⁸

²⁰⁴Travis's narrative is perhaps doubly poignant considering the context of international Cold War fears at the time his work was published.

²⁰⁵See his address "Discours de MM. Chevalier, Frédéric Passy du R.P. Hyacinthe 24 juin 1869," in Hyacinthe Loyson, *Bibliothèque de la Paix*. Publiée par les soins de la Ligue Internationale et Permanente de la Paix (Paris: 1869) 2-34.

²⁰⁶Drolet, "Industry, Class and Ideology," 1232.

²⁰⁷Chevalier, *Introduction*, 501.

²⁰⁸Chevalier, *Introduction*, 501-502.

His was the voice of an engineer and geologist commenting on the feasibility of the tunnel railway; by 1867 Chevalier believed attempting this enterprise was anything but impossible.²⁰⁹ This notion of impossibility is discussed below. His political economic considerations were also not focused on political or military fears. In fact, he concluded that “[l]’exécution de ce chemin de fer sous-terrain serait un événement européen. Il modifierait sensiblement, dans l’intérêt général, les relations entre l’Angleterre et le continent.”²¹⁰

I wish to accentuate Chevalier's integral role in the campaign for building the underground tunnel railway by considering some primary evidence. If I emphasise Chevalier's part, let it be clear that this was a joint effort that involved a significant number of geologists, engineers, industrialists, politicians, and the public during the early years of the Third French Republic. Engineers and geologists worked together on both sides of the Channel to provide the surveys and samples their respective governments needed to make a decision on granting the concession. In France this decision weighed heavily on the possibility of completing the underground railway, and three measurements provided consequential evidence in this discussion. The Channel was sixty metres at its deepest. Depth then was not viewed as an obstacle; geologists believed the tunnel would have to go no deeper than one hundred twenty metres from sea level. The length of the tunnel was estimated at approximately forty-eight kilometres, which led engineers in turn to understand that the slope needed for the tunnel was actually ideal.²¹¹ Finding layers of chalk under the seabed gave geologists serious reasons to be optimistic, both for its impermeability and because chalk was easy to mine. As per Chevalier, the serious concern was the continuity of the coveted grey chalk: “La continuité, la régularité de la ligne d’affleurement, si cette ligne peut être retrouvée partout, seront une

²⁰⁹Chevalier, *Introduction*, 500. He reiterated these same points and concerns in the “Memorandum respecting Preliminary Works to be executed,” signed by Chevalier on 1 July, 1874, in *Accounts and Papers of the House of Commons, 5 February – 13 August 1875, Vol 37* (London, 1875) 13.

²¹⁰Chevalier, *Introduction*, 502. Travis also noted that organised labour groups supported the building of the underground railway. He quoted *The Railway Engineer* saying “to them the tunnel meant work and cheaper Continental food through the elimination of transshipment costs.” Travis, *Channel Tunnel*, 41.

²¹¹The slope of the 26 km centre portion of the tunnel was estimated at 0.038 millimetres per metre, while the slope of the English and French 11 km ramps was estimated at 0.0125 and 0.0135 millimetres per metre, respectively. M. Krantz, “Rapport au nom de la Commission chargée d’examiner le Projet de Loi [...],” in *Accounts and Papers*, 62-63.

preuve certaine de l'absence, déjà infiniment probable, de dislocation dans le banc de craie.”²¹² Consider the position of the French Commission d'Enquête on the feasibility of the enterprise:

[I] n'est pas téméraire de dire que les détails du percement [...] constituent des problèmes dont la solution ne dépasse pas les ressources de l'industrie moderne. Ce qu'il eut été insensé d'essayer, il y a vingt ans, peut aujourd'hui s'accomplir, et s'accomplira à moins d'obstacles matériels et insurmontables, en moins de temps peut-être que nous n'osons le prévoir, grâce à l'invention récente et au perfectionnement qui se fait chaque jour de machines perforatrices d'une grande puissance et d'un grand effet.²¹³

The study of depth and length of the tunnel, as well as the survey of the chalk revealed the possibility of the enterprise and why Chevalier and everyone involved were very much excited to get the project underway – its probability of success was, they believed, within the reach of industry during the 1870s.

On 6 August, 1875, the National Assembly voted in favour of the projet de loi, in short declaring the tunnel railway of “utilité publique” and sanctioning the content of the Convention. A Convention was an accord or pact made official, in this case between “le Ministre des Travaux Publics et MM. Michel Chevalier, [...] Fernand-Raoul Duval, Alexandre Lavalley, Président et membres d'une société constituée à la date du 1er Février, 1875 [...]”²¹⁴ Utilité publique was not defined in concrete terms in the documents I have examined,²¹⁵ so I provide here my interpretation of this concept based on the discussion on the topic by the French Commission des Communications.

La France, par son climat et par les facilités de toutes sortes qu'elle offre pour l'existence, exerce sur les Anglais une attraction puissante, qui se traduit aujourd'hui par un courant d'au moins 350,000 voyageurs traversant annuellement le détroit [...]. Or il n'est pas douteux que l'établissement d'une jonction directe entre les deux pays n'eut pour résultat d'imprimer à cette circulation une activité plus grande encore. L'échange des marchandises est ailleurs très considérable entre la France et l'Angleterre, et il est permis de penser que la suppression du

²¹²Chevalier, “Memorandum,” 13.

²¹³“Projet de Loi ayant pour objet la déclaration d'utilité publique et la concession [...]”(Séance du 18 janvier, 1875),” extract from the *Journal Officiel* of January 30, 1875, in *Accounts and Papers*, 23.

²¹⁴“Loi ayant pour objet la déclaration d'utilité publique et la Concession d'un Chemin de Fer Sous-Marin entre la France et l'Angleterre,” extract from the *Journal Officiel* of August 6, 1875, in *Accounts and Papers*, 75. The French company presided by Chevalier underwent a few name changes throughout the history of this project. This law of 6 August 1875 officially constituted the Société du Tunnel Sous-Marin entre la France et l'Angleterre. I abbreviate this as Société, and for clarity use Société instead of constantly referring to Chevalier, Duval and Lavalley.

²¹⁵L'utilité publique seems to have been established in France by l'Ordonance du 18 Février, 1834. The Commission referred to this for precedence and benchmark for l'utilité publique, yet do not reveal the content of this law. “Rapport au Ministre des Travaux Publics sur la demande en Concession de MM. Michel Chevalier et consorts,” in *Accounts and Papers*, 5.

double transbordement nécessité par la traversée maritime serait considérée par beaucoup d'expéditeurs comme un sérieux avantage.²¹⁶

Utilité publique can be defined as the perceived increase of benefits in cultural and commercial exchanges between France and England as the result of granting the Société the concession for the tunnel railway and rights of development. The detailed content of the Convention and the enquiry it produced in the French government were well documented and reveal the complex vocabulary concerned with legality surrounding the sanctioning of the underground tunnel in 1875. Keeping in mind the context of l'utilité publique, now I focus on how the concession was granted as a monopoly and how capital was to be organised in the execution of preparatory and definitive works in the Convention.

Article I.

Le Ministre des Travaux Publics, au nom de l'Etat, concède à MM. Michel Chevalier, Fernand-Raoul Duval, Alexandre Lavalley, [...] agissant au nom de ladite Société, sans subvention ni garantie d'intérêt de la part de l'Etat, un chemin de fer partant d'un point à déterminer sur la ligne de Boulogne à Calais pénétrant sous la mer et se dirigeant vers l'Angleterre [...].

Article V.

La durée de la concession sera de quatre-vingt-dix-neuf ans (99), à partir de la mise en exploitation du chemin de fer sous-marin. Le Ministre des Travaux Publics, au nom de l'Etat, s'engage à ne concéder, pendant trente ans [...] aucun autre chemin de fer partant du littoral Français et pénétrant sous la mer, dans la direction de l'Angleterre.²¹⁷

What was interesting in the Convention was the relationship between the Société and the French state – I examine the implicit meaning of l'utilité publique by grounding this concept in the discussion of private and public interests occurring then between members of the Société and government. The monopoly granted to the Société must be understood as a concession regulated by the French state.²¹⁸ These rules between government and the Société were defined by the Cahier des charges. The Cahier des charges

²¹⁶“Rapport au Ministre des Travaux Publics sur la demande en Concession de MM. Michel Chevalier et consorts,” 2.

²¹⁷“Deuxième Rapport fait au nom de la Commission chargée d'examiner le Projet de Loi [...],” in *Accounts and Papers*, 59-60.

²¹⁸This concession granted to the Société was in essence Chevalier's legacy. The 1875 concession was what gave Paul Leroy Beaulieu, Chevalier's grandson, the French claim within the international coalition between Britain, France and the United States in 1957, when serious attempts at building the underground tunnel railway began once more; Travis, *Channel Tunnel*, 66-67.

served to formalise the parameters of the project and explain it to the public.²¹⁹ This document had to be respected during the realisation of the project. Consider the vocabulary used to define the role of the State in this document: “autorisation,” “approbation,” “contrôle,” and “surveillance” by the French administration was emphasised in various articles. Here alarmist fears are unwarranted and would be gravely mistaken. These were important words in 1875, and it is paramount to understand that they were formalised in accordance with the industrialists involved in the project. Public concerns were formalised in the various articles of the Cahier de charges. I wish to highlight three:

Art. 14.

La [Société] sera tenue de rétablir et d'assurer à ses frais l'écoulement de toutes les eaux dont le cours serait arrêté, suspendu ou modifié par ses travaux, et prendre les mesures nécessaires pour prévenir l'insalubrité pouvant résulter des chambres d'emprunt.

Art. 21.

Tous les terrains nécessaires pour l'établissement du chemin de fer et ses dépendances,[...] seront achetés et payés par la [Société] concessionnaire. Les indemnités pour occupation temporaire ou pour détérioration des terrains, pour chômage, modification, ou destruction d'usines, et pour tous dommages quelconques résultant des travaux, seront supportés et payés par la [Société].

Art. 26.

Pour l'exécution des travaux la [Société] se soumettra aux décisions Ministérielles concernant l'interdiction du travail les Dimanches et jours fériés.²²⁰

Control of external effects or indirect damages was very important for conceptualising l'utilité publique and sanctioning the railway project, and these articles reveal how limits were placed on the Société. They explicitly underline the Société as bearer of responsibility for damages to people and social and natural environments that could result from the preliminary investigations or definitive construction on the tunnel. Article 26 also reveals that labour regulation and cultural practice would also have to be respected. If the Société, Chevalier and the individuals involved, represented what could arguably be called a corporation, it is significant to understand that the power of this corporation was curbed by the French government in accordance with the Société.

²¹⁹See the 66 articles of the Cahier des Charges in “Projet de Loi ayant pour objet la déclaration d'utilité publique et la concession [...],” 27-39.

²²⁰“Projet de Loi ayant pour objet la déclaration d'utilité publique et la concession [...],” 29-30, 31. These are sub-articles within the Convention.

Now consider capital, private interests, social welfare, and the public in l'utilité publique. "La dépense en travaux est évaluée, pour l'ensemble, au chiffre de 250 millions, sur lequel la [Société] espère réaliser d'importantes économies. [L]'Etat n'est appelé à participer à la dépense ni par voie de subvention, ni par voie de garantie d'intérêts [...]"²²¹ The law of 6 August emphasised that the Société was obliged to invest no less than half of the capital required for building the underground railway.²²² To be granted a monopoly on the concession was important for the Société. The expenses solely for the preliminary works were valued at 20 to 25 millions francs. If a fissure was discovered during the preparatory stages, then the capital invested would mean a complete loss if the project was abandoned.²²³ To argue that the Société was not motivated by profits would be false; the ninety nine year lease on the concession was precisely meant to act as a guarantee for retrieving their original investment and make a profit. At this point the reader should recognise that profits were theoretical. The Cahier des charges was an important document to establish projected tariffs as an indication of possible future prices.²²⁴ Though they were only theoretical estimations at this point, they were set at a maximum – meaning price was regulated.²²⁵ This relationship between the Société and the French state was significant: the concessionnaires were governed by formalised agreements set in the Cahier des charges they drafted as a response to government concerns for l'utilité publique.²²⁶ In this legal document the French government intervened on behalf of the public

²²¹"Rapport au nom de la Commission chargée d'examiner le Projet de Loi [...]," 63.

²²²"Loi ayant pour objet la déclaration d'utilité publique et la Concession d'un Chemin de Fer Sous-Marin entre la France et l'Angleterre," 75.

²²³"Projet de Loi ayant pour objet la déclaration d'utilité publique et la concession [...]," 24.

²²⁴See articles 42 to 53 for price conditions, including a table showing prices in "Projet de Loi ayant pour objet la déclaration d'utilité publique et la concession [...]," 34-37. Not knowing what prices would be in the future, yet unable to move forward with the preliminary works without showing the French government some form of price structure, Chevalier and the other concessionnaires proposed guideline prices five times those of the Chemin de fer du Nord. These were accepted, and the articles 42 to 53 and the table reflect this "tarif maximum quintuple." This price structure was accepted because the costs – "[l]a Commission, tenant compte des frais probables" – to the Société for realising the tunnel railway project were expected to be five times more than the Chemin de fer du Nord. "Rapport au Ministre des Travaux Publics sur la demande en Concession de MM. Michel Chevalier et consorts," 6. This discussion should be reflected in the footnote below.

²²⁵"Les tarifs soumis aux enquêtes sont assurément très-élevés, presque prohibitifs; mais personne ne peut affirmer qu'ils soient excessifs et même qu'ils puissent assurer une rémunération suffisante. Toute critique de ces tarifs serait donc prématurée; mais ce qui peut et doit rassurer à leur endroit, c'est qu'ils ne constituent, en réalité, que des maxima;" in "Rapport au nom de la Commission chargée d'examiner le Projet de Loi [...]," 68.

²²⁶As an industrialist investing his own capital and an intellectual with a firm grasp of political economy, I would be ready to argue that Chevalier played a significant role in this process.

by setting an agreed upon maximum price, which in turn imposed limits on rates of return and profits to be gained by the Société. Regulation of price and profits implied that Chevalier and members of the Société found this agreement acceptable as a way of retrieving their invested capital and be remunerated for their efforts. To overemphasise the profit motive disregards the important considerations of price regulation in discussions of l'utilité publique. This concept highlights price relations between industrialists and the public, or private capital and social welfare. Chevalier argued often that lower prices on consumer goods resulted from the development of industry. If a discussion here of monopoly and consumer benefits seems contradictory, I am making a specific case for capital and social welfare in the case of a regulated public good. Because market power is – and was in 1875 – a serious social concern.²²⁷ L'utilité publique comprised a discussion of both the best possible price for satisfying the costs and profit motive of the industrialists and obtaining the lowest possible price for people using an important public project. Acceptable rates of return foregrounds a discussion that the public was given information to perceive, and the power to limit, possible abuses that might ensue from granting monopoly rights to the Société. This discussion must also underline the willingness of private interests to abide by regulation. The formalised legalities of sanctioning the underground railway presented an example in French industry where terms of power were addressed between private and public interests.²²⁸ I do not wish to make a general case representing private and public interests during the 1870s in France. Rather, my goal is to emphasise how one project was influenced by individuals like Chevalier, who as an industrialist thought and acted in a manner that gave weight to l'utilité public.²²⁹ To dive further into his political economic

²²⁷Market power (monopoly power in this case) is the ability to control price. “Market power shifts wealth from the many customers to the few monopolists [...]. That makes wealth more unequal [...].” Shepherd and Shepherd, *The Economics of Industrial Organization*, 120, 93-96.

²²⁸“Soixante-treize Chambres de Commerce, répondant à l'appel qui leur était adressé, émirent des avis favorables au projet, sous la réserve, seulement fait par vingt-sept d'entre elles, que l'Etat conserverait le droit de rachat de l'entreprise, qu'un Tarif spécial de péage serait établi, et qu'enfin, l'amélioration des ports de la Manche ne serait pas ajournée;” in “Rapport au nom de la Commission chargée d'examiner le Projet de Loi [...],” 64.

²²⁹This is not solely the opinion of a twenty-first century historian. On a number of occasions the reputation of, and confidence in, the members of the Société was cited as evidence informing the government's discussion of l'utilité publique and the tunnel railway concession. See for example “Rapport au nom de la Commission chargée d'examiner le Projet de Loi [...],” 64, 67.

thought would reveal how important his Saint-Simonian considerations were in representing the position held by the Société. His thoughts on the organisation of industry and travail lend support to the Société's intentions for accepting the implications of holding a monopoly position governed by formalised agreements in the name of l'utilité publique.

As per Lynch's interpretation of ideology, social context helps explore Chevalier's intentions, specifically as an industrialist. The thought of Chevalier the geologist, engineer, political economist, industrialist, and public servant revealed the interesting mix of scientific and industrial capacity and private and public interests in one person. I have attempted to reconstruct the social intellectual context of thought of Chevalier the author in order to understand how grand infrastructure projects were meant as one answer to industrial organisation. This question he asked as early as 1832 in *Le système de la Méditerranée*. If let us say he knew the answer then, he did not have the means to propose and thus realise this project. Only Chevalier the industrialist, who had accumulated capital and wealth by 1875, would be in a better position to fully answer this question. Consider the context of humanitarianism as discussed by Lynch above. For Chevalier, the industrialist had an important social responsibility to be productive with his capital.²³⁰ If I am attempting to show a difference between a productive and unproductive use of capital, I do not wish to impress that the profit motive was absent for Chevalier. Saint-Simonian or not profits drove one important aspect of conduct in the culture of growth and social prosperity – the accumulation of capital and wealth. Was Chevalier completely selfless and disinterested? An increase in society's productive forces implied the growth of an industrial class – industry benefited these men and their families. At the end of his life Chevalier lived in a castle on an estate in Montplaisir, in Lodève, France. Not exactly the representation of an industrialist disinterested in material prosperity. Perhaps in attempting to build the underground tunnel railway he had more in mind than simply lining

²³⁰Pfammatter writes: "In his autobiographical notes [Saint-Simon] stresses that after the French Revolution he had sought to establish a large industrial firm and a scientific school of the most perfect quality;" Pfammatter, *The Making of the Modern Architect and Engineer*, 104-105. Saint-Simon did not accomplish this goal, however.

further his own coffers.²³¹ Chevalier believed the benefits of adequately organising his capital towards realising the underground tunnel railway would be felt by the working classes through the availability of jobs, lowered prices on necessities and various other communications and exchanges between the cultures of France, England and Europe. Chevalier was so confident in his beliefs he applied them to peoples and cultures around the globe. Perhaps Chevalier was not so fictional when his thought was analysed in the context of European society; in a global context, however, his ideas on science and industry represented an ideological imposition.

In *Imperial Eyes* Pratt explores the imposition of European ideology on the periphery as a challenge to the meaning-making powers of empire. Her discussion reveals serious depth for her approach to ideology as a historical phenomenon rooted in the past that shows continuity to the present.²³² Pratt focuses on European travel and exploration writing of the eighteenth century as a source of code and signifying practice legitimising as meaningful and desirable commercial and imperial expansion.²³³ She provides a vivid description of the European subject:

Here is to be found a Utopian image of a European bourgeois subject simultaneously innocent and imperial, asserting a harmless hegemonic vision that installs no apparatus of domination. At most naturalists were seen as handmaidens to Europe's expansive commercial aspirations. Practically speaking, in exchange for free rides with trading companies and so forth, they produced commercially exploitable knowledge.²³⁴

Chevalier did not see his ideas as fictional. He truly believed in the powers of science and industry to overcome what he deemed insurmountable challenges in the periphery, where he understood capital as non-existent or barely developed. In essence Chevalier praised the expansion of capital in the periphery as a means for ending slavery;²³⁵ he discussed the development of capital in the sugar isles of the Caribbean

²³¹Personal fortunes employed towards social causes was a recurring theme in Saint-Simonism. For examples on Saint-Simon see Pinet, *Ecrivains et penseurs polytechniciens*, 135; for the Saint-Simonians see Moses and Rabine, *Feminism, Socialism, and French Romanticism*, 46.

²³²Mary Louise Pratt, *Imperial Eyes: Travel Writing and Transculturation*, (New York: Routledge, 2008) xi-xii.

²³³Pratt, *Imperial Eyes*, 3-4.

²³⁴Pratt, *Imperial Eyes*, 33.

²³⁵For Chevalier slavery had economic and political dimensions. His perspective emphasised the economic aspects; that is, he understood that slavery was abolished because it was no longer profitable. Chevalier, *Introduction*, 19-27, 415-418; see also Chevalier, *Lettres sur l'organisation du travail*, 11-14. His belief in the powers of capital in the periphery still contained clear limitations, however. Dominicans were not free from 1848 onwards simply because

(les Antilles) in this sense. Processing plants had been built where it was opportune to do so, which in turn was understood in various ways as beneficial to the sugar industry.²³⁶ The European sugar industry that is. Even with the intrusion of capital by industrialists in the Caribbean, where Chevalier described the favourable influence of capital on the processing of sugar cane, intensive labour practices were still the norm to extract raw materials – people were still used where capital had yet to replace them.²³⁷ Chevalier understood industry from the perspective of a European who witnessed the improvements of technology and capital increasingly remove the burdens placed on European labour. The macroeconomic approach to the study of society engaged Chevalier for the better part of his life to the analysis of changing economic relations between people, machines and nature, in Europe. Chevalier erred in believing that European society represented the economic model par excellence, however.²³⁸ For Pratt the point was that non-Europeans were brought into a system and assessed on the grounds of behaviour and practices of an European industrial discourse.²³⁹ Arguments for adequately organising industry in the periphery, Chevalier praising the assistance brought by capital for example, disregarded the cultural beliefs, practices and economic structures of the peoples who, extracted from their homes, had lost their way of life. The fiction a work such as the *Introduction* did produce was Chevalier unwittingly misunderstanding the imposition of ideology as the universalising of his own self-interpretation on the periphery. To emphasise in celebration the narrative of the *Introduction* recreated and perpetuated what Pratt understands as the monopoly on knowledge the industrial narrative represented in the context of colonial expansion.²⁴⁰ To deny that Saint-Simonians or affiliates of the movement impacted in significant ways

government in France had decreed them so. As per Pratt, peoples in the periphery were brought into a European discourse of “economic expectations;” Pratt, *Imperial Eyes*, 43.

²³⁶Chevalier, *Introduction*, 415-418.

²³⁷“[L]es colons n'ont qu'à livrer la canne à ces établissements, aussitôt qu'ils l'ont coupée dans les champs, sans avoir à s'occuper de la traiter eux-mêmes.” Chevalier, *Introduction*, 417. Did Chevalier believe that freed plantation workers were now settlers?

²³⁸The concept of the 'other' challenges the conceptualisation of this model even in an European context. See Eugen Weber, *Peasants into Frenchmen: The Modernization of Rural France, 1870-1914*, (Stanford, California: Stanford University Press, 1976) 3-22; also Lynch, *Family, Class and Ideology*, 8-12; and Pratt, *Imperial Eyes*, 34-35.

²³⁹See Pratt's discussion of the Khoikhoi ('Hottentots'), for example; Pratt, *Imperial Eyes*, 52.

²⁴⁰Pratt, *Imperial Eyes*, 7.

culture in the colonies would be false.²⁴¹ If I emphasised above the need to consider further the history of their ideas and goals, in no way is this discussion meant to exempt Saint-Simonians and Saint-Simonism from Pratt's important criticism of ideological structures.²⁴² Colonialism was not an idea born from Saint-Simonism, nor can its origins be traced to the nineteenth century. I wish to explore further this understanding of knowledge by Pratt to analyse aspects of Chevalier's thought in the context of colonialism (mission civilisatrice). Pratt's use of planetary consciousness and reciprocity guide this discussion.

Two processes, natural history as a structure of knowledge and the European's gaze towards the interior, define Pratt's understanding of a planetary consciousness emerging in Northern Europe during the eighteenth century.²⁴³ Chevalier arguably made use of these processes in the *Introduction*.²⁴⁴ As a geologist it was perhaps not surprising he understood the history of human relations in terms of topography and geography. Still he recounted the history of human beings on the planet from a Western perspective. In this account nature was the greatest barrier to the advancement of civilisation, Chevalier classifying human beings by degrees in various parts of the globe by the current capacity of their control over nature. By the nineteenth century, Europeans of course believed they had mastered civilisation; as

²⁴¹See Osawa W. Abi-Mershed, *Apostles of Modernity: Saint-Simonians and the Civilizing Mission in Algeria*, (Redwood City: Stanford University Press, 2010).

²⁴²The colonial question in the historiography of Saint-Simonism is interesting considering the two differing historical perspectives of authors already mentioned in this thesis. Le Van-Lemesle claims 'Saint-Simonians' imposed a colonial doctrine on Liberals and Liberalism, as if the latter were the target of some masterful duplicity on the part of their colleagues in the Société d'économie politique during and after the Second Empire; Le Van-Lemesle, *Le Juste ou le Riche*, 145-147. To argue that Saint-Simonians were responsible for (while Liberals expunged from) spreading colonialism to political economy seems problematic. On the other hand, Drolet turns the accusation on itself (though not in direct dialogue with Le Van-Lemesle), and shows how it was Liberals who propagated this colonial doctrine. But was Chevalier's thought "radically different" in the context of the colonial question, as the author claims? Drolet acknowledges the imposition of European states but not the imposition of a structure of knowledge. Drolet, "Industry, Class and Society, 1268-1270. See *L'Algérie en 1848, tableau géographique et statistique* (Paris, 1848) for a primary account in Algeria and the colonial gaze of the French government from 1830 to 1848.

²⁴³Pratt, *Imperial Eyes*, 34.

²⁴⁴Chevalier was a nineteenth century observer. Though differences existed between his and the eighteenth century naturalists' and explorers' travel writing, Pratt's concepts and understanding of ideology offers enough similarities in a general sense to be useful in this thesis without exploring this difference.

such Chevalier charged la race européenne with the mission of propagating the bounties of civilisation, most notably scientific culture.²⁴⁵

[L]a race européenne à acquis par degrés, mais lentement d'abord, une force d'expansion que les circonstances les plus opposées ont contribué à servir. L'ambition des princes de se créer des domaines lointains, celles des commerçants de faire une grande fortune, [...] le désir, qui est une des plus fortes passions de l'homme, de propager sa religion, les persécutions politiques et religieuses qui forçaient des hommes fortement doués, [...] à quitter une patrie inhospitalière, toutes ces causes, et d'autres encore, ont porté une multitude d'individus de la race européenne à se répandre au loin et à porter partout le génie, tour à tour explorateur et dominateur, qui est propre à cette branche du genre humain.²⁴⁶

Empire building was never promoted by Chevalier – his was not the “invader's perspective.”²⁴⁷ Though he used juxtapositions that can question his perspective of European expansion, clearly Chevalier valued the transmission of European ideas and technology throughout the globe. The movement of people was never far removed from his historical perspective, but his attention to the cultural practices of others was compared and evaluated on European terms. Le don de la civilisation européenne, Chevalier believed, was the gift of science brought by the genius of Europeans to non-Europeans. Young and old civilisations alike were understood in terms of infancy relative to their current use of science and industry.²⁴⁸ In short, Chevalier classified Europeans as culturally superior.²⁴⁹ He also viewed increasing contact with non-Europeans from the perspective of exchange of the globe's natural resources (matière première). His discussions of jute (a hemp like plant) and caoutchouc (rubber) were the more striking examples of the perceived benefits of exploratory voyages and taxonomy in the thought of Chevalier.²⁵⁰ Positioned to judge the rest of the globe at the Paris Universal Exposition of 1867, Chevalier's industrial perspective promoted the ideas but also the practices of European science and industry. Emphasising this perspective in the *Introduction*, and the foregrounded history of civilisation and exploration this comprised, was

²⁴⁵Chevalier, *Introduction*, 465-493.

²⁴⁶Chevalier, *Introduction*, 467.

²⁴⁷Pratt, *Imperial Eyes*, 8.

²⁴⁸Chevalier, *Introduction*, 488.

²⁴⁹I say culturally superior and not naturally superior.

²⁵⁰Chevalier, *Introduction*, 324-329.

Chevalier imposing and reinforcing the structure of European knowledge on the peoples and cultures of the periphery.

For Pratt “[r]eciprocity has always been capitalism's ideology of itself.”²⁵¹ Chevalier's insistence on the superiority of Europeans represented, to use Pratt's terminology, the idealised “drama of reciprocity”²⁵² in which knowledge and culture are imposed by Europeans at the moment of cultural contact.²⁵³ This drama was in essence the self-reinforcing belief in a code that legitimised the practice and superiority of Europeans; it was dramatic and non-reciprocating because of the observer's lack of self-reflection.²⁵⁴ This drama was overtly expressed in the *Introduction* as a desire for spreading science and technology to the periphery, but also the institutions of rights and exchange. Taken from a perspective of trade balances between industrial nations, formalised agreements between imperialist governments codified the belief in these institutions; they became legitimate, non-reciprocating institutions through legal formulation of rights of acquisition and property.²⁵⁵ Reciprocity in commercial exchange relations represents a fallacy for Pratt because Western structures of knowledge are the dominant form of expression in these relations. “[W]hile doing away with reciprocity as the basis for social interaction,” she argues, “capitalism retains it as one of the stories it tells itself about itself. The difference between equal and unequal exchange is suppressed.”²⁵⁶ For Pratt this reveals the strategies of representation that help to secure the European subject of his innocence in the face of commercial domination and appropriation of

²⁵¹Pratt, *Imperial Eyes*, 82.

²⁵²Pratt, *Imperial Eyes*, 79

²⁵³See Pratt's discussion of contact and contact zone; Pratt, *Imperial Eyes*, 3-14.

²⁵⁴Pratt, *Imperial Eyes*, 81.

²⁵⁵A possible benchmark for tracing the process of this phenomenon can be dated to the voyages of Christopher Columbus in 1492; Pratt, *Imperial Eyes*, xi-xii; See also Stephen Greenblatt, *Marvelous Possessions: The Wonder of the New World* (Chicago: University of Chicago Press, 1992) 52-85 and Mary Klages, “Postmodernism” in *Literary Theory: A Guide for the Perplexed* (New York: Continuum, 2006) 164-177. In the nineteenth century, trade balances between European nations dividing up the globe in terms of national expansion policy further reveal continuity in this process of legitimising institutions of property. For example, less than twenty years after Chevalier published the *Introduction* European nations would gather to split up the African Continent at the Conference of Berlin in 1884-1885. Jerry H. Bentley and Herbert F. Ziegler, *Traditions & Encounters. A Global Perspective on the Past Volume II: From 1500 to the Present, Fourth Edition* (New York: McGraw-Hill, 2008) 906-940.

²⁵⁶Pratt, *Imperial Eyes*, 82.

the globe.²⁵⁷ This is significant because in her criticism of the travel writer (and present day observer) a moment for self-reflection presents itself when narrating the process of exchange and the limits of this conceptual framework, yet self-reflection was ignored and worst innocence was justified.²⁵⁸ Consider reciprocity in the context of Chevalier's thought concerning the rights to the Panama Canal.

Agir de sorte pour les communications en général et pour les rapports entre les deux océans que sépare l'Amérique en particulier, c'était méconnaître ses intérêts, froisser ceux de la civilisation et légitimer sa propre déchéance; car si dans les affaires privées la propriété implique le droit d'abuser ou de ne pas user, il n'en est pas de même dans celles de la civilisation. Ici subsiste, de droit divin, une loi de confiscation contre les Etats qui ne savent pas tirer parti du *talent* que le maître leur a confié, ou qui s'en servent contrairement à quelques uns des penchants les plus invincibles de la civilisation, comme est celui du rapprochement des continents et des races.²⁵⁹

In this passage Chevalier was criticising the Spanish government and its colonial history. If his tone seems forceful this was due to his criticism of the state's obligation towards infrastructure projects in 1844. The civilising mission nevertheless informed his thought: colonial governments had legitimate claims on property rights and acquisition in the periphery, especially in the context of commercial relations. The use of *voie de communication* in this final chapter allowed for a discussion of a constant idea in the thought of Chevalier. He believed in this idea, that is he discussed grand infrastructure projects in Europe in the same manner he discussed these in other parts of the world. European society was understood in this macro-historical and economic sense. If his method of applying historical and economic analysis to the periphery was faulty, Chevalier did not understand this limitation. The world was becoming increasingly larger in terms of perspectives, so the model to which his theories were applied essentially followed suit with this growing planetary consciousness. Reciprocity in the contact-zone is crucial. Ignoring that reciprocity did not occur is the important problem for Pratt.²⁶⁰ Even if

²⁵⁷See Pratt's discussion of conquest and anti-conquest.

²⁵⁸Pratt, *Imperial Eyes*, 43-44, 56-59, 81.

²⁵⁹Chevalier, *L'isthme de Panama*, (Paris, 1844) 32.

²⁶⁰Pratt does not discount the importance of cultural contact between human beings from different parts of the globe. Her concepts of contact zone and contact perspective indicate this; Pratt, *Imperial Eyes*, 7-8. For Chevalier, "[l]e contact [...] entre les deux grandes masses de la civilisation orientale et de la civilisation occidentale [...] est peut-être la nouveauté la plus considérable de ce siècle si fertile en innovations." If Chevalier believed in the "conséquences incalculables" for countries like China and Japan, contact also translated into "de très-grands résultats pour les occidentaux eux-mêmes." Chevalier, *Introduction*, 470.

Chevalier sought the approval of the Nicaraguan government to build the Canal,²⁶¹ the drama of reciprocity was still played out. The inhabitants of the regions of Nicaragua/Panama were receiving the presumed benefits of European civilisation – the emphasis that the isthmus had to be improved imposed the institutions of science and exchange. Not criticising the legitimisation of the European state and its rights to colonial acquisition foregrounded the history of the West and a structure of knowledge that diminished or blatantly ignored the history of central American civilisations of the pre- and post-colonial periods.²⁶² Chevalier would have attempted to bring to the Panama project the same approach of private and public interests discussed in Europe with the building of the tunnel railway; however, Pratt's concept of reciprocity reveals that emphasising this discussion would ignore the process of colonial acquisition and legitimisation that precluded Chevalier's intentions. The correspondence between Chevalier and the Nicaraguan government, dating from October 1875 to February 1876, shows how he hoped to be given (once more) the opportunity of building the Panama Canal. The ninth letter in this collection addressed to Don Manuel Peralta brought home to him the reality that someone else would be chosen. The concession of land previously procured by Chevalier in the regions of lake Nicaragua was seized by the Nicaraguan government.²⁶³ The final letters did not mention this loss of concessionary rights, though it seems fair to assume it was around this time it was taken from him. This decision did not emit from him any kind of challenge or arguments of injustice being done to his person or claim. In an ironic reversal perhaps Chevalier understood he fell victim to his own words.

²⁶¹See Chevalier's correspondence with the Nicaraguan government. These papers are one side of the conversation, in the sense that they are reproductions of letters sent by Chevalier; Chevalier, "Canal interocéanique: correspondance de Mons. Michel Chevalier, Oct. 1875 – Fév. 1876," from the Archives at the Georgetown University Libraries.

²⁶²Intellectuals who still utilise this structure without reflection, according to Pratt, reproduce its meaning-making powers; Pratt, *Imperial Eyes*, xi.

²⁶³Murphy mentions this in his epilogue but does not provide a citation. Murphy, *Envisioning Romantic Political Economy*, 314.

Conclusion – Capitalism as an Inadequate Organisation of Capital

The questions explored in this thesis are the product of my interests in ideologies, particularly the concepts of capitalism and socialism. These interests developed due to the challenging perspectives presented by faculty and colleagues regarding the impact of global problems in the courses they offered. The specific moment where I was hooked on ideology was after an introduction to Karl Marx's *Capital* and the language of political economic theory. The timely appearance of Michel Chevalier into my life followed soon thereafter. I stumbled onto Chevalier as a topic of study when looking for a way to infiltrate the financial world of the haute bourgeoisie and credit institutions of the nineteenth century. I did not know then that by the time this thesis was complete I would be discussing avidly the ideas and works of a political economist and industrialist who defended the accumulation of capital so fervently. Today perhaps I can explain more readily what was less obvious when beginning this thesis: capitalism, as the concept of appropriation and unmitigated growth, does not accurately define Chevalier's thought.

Investigating his career I came across an interesting new word: Saint-Simonism. Defining this word, this idea, is difficult; defining Saint-Simonism and the thought of Chevalier is nevertheless the object of this thesis. A number of individuals banded together after the death of Claude Henri Saint-Simon in 1825 to form what came to be known as the Saint-Simonian movement. The thought of the Saint-Simonians was influenced by capitalist socialist ideas on productivity and redistribution of wealth, by early women's movements, and not to mention by concerns with social morality. Saint-Simonism then is a concept that offered a beginning for exploring many interesting ideas developed during the turbulent nineteenth century in Europe. Three ideas, discussed in the context of Chevalier and Saint-Simonism, stand out within this thesis: the intellectual connection between Saint-Simon and Chevalier on industrial organisation; the concept of crisis; and the capacity of Chevalier the industrialist.

Establishing the intellectual connection between Saint-Simon and Chevalier is important for at least two reasons: to show that Saint-Simon was the intellectual authority behind Saint-Simonism,

and to reveal that Chevalier's ideas on industry and adherence to Saint-Simonism was lasting. By analysing three of his published works, *De Saint-Simon et son école*, *Lettres sur l'organisation du travail*, and *Introduction to the Rapport du jury international*, I argue Chevalier was a Saint-Simonian for the entirety of his life to redress some of the historiographical interpretations concerning his ideas and works. Ideologies are grand, systematic ideas that generalise when it comes to people, society and culture. I approached ideology from the perspective of social and economic interests during the nineteenth century in Europe. Industrial organisation was one of these grand ideas discussed by Saint-Simon and Chevalier that attempted to explain social relations in an industrial context. Saint-Simon was captivated by the scientific revolution and what was then perceived as new perspectives on natural and social environments. He not only hoped to find the so called natural laws that governed industrial society, but also argue that Europe was experiencing a period of transition that left industry seriously disorganised. The result for arguing the intellectual connectivity of Saint-Simon and Chevalier reveals the importance of ideas and the long process of their development in the French social intellectual network. The lives of Saint-Simon and Chevalier barely overlapped but the ideas discussed during the life of the former were as relevant for the latter. Both authors discussed industry as commentators within this grand structure of ideas, but more importantly as commentators influenced by actual social conditions: ideas in this sense do not come first, rather the discussion by Saint-Simon and Chevalier was an attempt to explain imperfect social relations existing during their lifetimes. Analysing industrial organisation in Saint-Simon reveals the prominence given to capital, social welfare and industrialists and defines some of the major components of Saint-Simonism. The Saint-Simonians prior to 1832 had declared that unproductive capital was to be appropriated. Chevalier showed that this was never Saint-Simon's thought, and as such argued by 1848 against this conception of appropriation. At first this seemed to me like a rejection of early Saint-Simonism by Chevalier. After careful consideration of productive and unproductive capital, industrialists, government, and redistribution of wealth, I came to view in

Chevalier's thought many of the early Saint-Simonian conceptions on industry: Chevalier argued throughout his career that productive capital increased industrial capacity; government was invested with the power to redress social problems, particularly relevant in the case of redistributing wealth and income through taxation; and unproductive capital needed to be vanquished, especially the influence of the military, clerical and judiciary institutions and their access to leadership within government. From this perspective of intellectual connection, I concluded that Saint-Simonism was defined by industrial organisation in Saint-Simon, and accentuated this as the foundation of Chevalier's Saint-Simonism.

Crisis is another important concept in this thesis. This idea informed the thought of Saint-Simon and Chevalier, that is, crisis was the reason they examined social relations and argued the need for organising industry. In Europe their discussion of crisis shows how society had the capacity to be productive but capital was unproductive and industry disorganised – the proof was unemployment and poverty. If Saint-Simonism was an ideology based on the concept of industrial organisation, crisis also implied a concern with social welfare and thus with social morality. For analysing Chevalier's political economy within this framework I relied on his *Lettres sur l'organisation du travail* – a source written in 1848 during the Worker Revolutions in Paris. Workers had a powerful voice within the French social intellectual network by 1848. Not surprisingly Chevalier was perceived as an opponent to the working classes precisely because he defended capital. However, his commentary in the *Lettres* was directed at the unproductive use of capital, and one example he consistently challenged throughout his career was European militarisation. Chevalier's understanding of capital and its use in the context of industry revealed the importance of capacity and responsibility and the difference between productive and unproductive use of capital. So crisis reveals an important aspect of Saint-Simon's and Chevalier's commentary as European society was transitioning: industrial relations were imperfect; they had been imperfect in the past and continued to be during the nineteenth century. The criticism by Chevalier of unproductive capital

and imperfections is understood in this thesis as the inadequate organisation of capital. Saint-Simon and Chevalier saw the industrial structure as inherently imperfect, meaning the laws governing society, coupled with the reality of rapid social change, poverty and unemployment, were guaranteed to keep the lower classes from having access to a better standard of living. Solving the social crisis, they believed, was a matter of responsible leadership. Organising government mechanisms to redistribute wealth through progressive taxation and using budgets to create and develop social capital was Chevalier's Saint-Simonism revealed in 1848. The discussion of crisis and the social intellectual network however must also include voices from outside Europe. Ideologies had a serious global impact in the nineteenth century, with consequences still being felt today. Mary Louis Pratt's discussion of Western ideological structures reveals that narratives from within the periphery expressed a challenge to the structure of European imperial and commercial expansion, but were ignored and worse Western innocence proclaimed. For Pratt the concept of capitalism is the story of its legitimising practices, self-justified in its innocence and its appropriation of the globe through ruthless empire building and profit seeking. Saint-Simon and Chevalier were guilty of thinking globally and applying European structures of thought and culture to the periphery without reflecting on what it meant to spread ideas of progress. Researching Chevalier I realised how his thought on capital in the periphery brought non-European cultures into an a structure of knowledge that erased their history and culture. Reproducing this structure of knowledge without taking the opportunity of reflecting on the culture of growth and progress is for Pratt the serious problem behind colonialist and capitalist ideologies. Chevalier's criticism of social crisis at the same time reveals he did not justify the inadequate organisation of capital.

Having developed a number of concepts I asked in the final chapter whether the ideas and works of Chevalier the engineer, political economist, public servant, and industrialist, were fictional. An investigation into his social economic background revealed that he was not born into significant amount of wealth. His parents, Jean-Baptist and Marie Chevalier, provided for him the important advantage of

education, however. The capacity of Chevalier the engineer was a product of a state driven institutional model of education that combined scientific training and the practical application of technology. This meant he acquired scientific and technical capacity with the express purpose of analysing industrial relations. For the majority of his life he chose to apply this capacity in the service of the state. By 1870 Chevalier was no longer engaged in French politics. Arguing for the continuity of thought for Chevalier gains significance when accepting that he now had in the 1870s the capacity to realise the infrastructure projects he advocated earlier in his career. The context of accumulation in Chevalier's case revealed that his person was not fictional; though many disagreed with his thought, this hardly impeded his ability as an engineer and political economist to be heard on matters of industry. The fiction was believing industry worked perfectly without the responsible intervention of government and industrial leaders; the historiographical interpretation of Chevalier must consider this perspective more seriously.

For Saint-Simon and Chevalier the industrialist represented a person different from the military, clerical and judiciary leaders of an old tributary society, whose interests and goals were counterintuitive to fixing social problems. Putting their trust in the industrialist was significant – he was someone who, they believed, embraced science and industry and had the capacity to organise industry. Further, their emphasis on scientific and industrial capacity revealed the extent Saint-Simon and Chevalier saw themselves as social intellectual leaders able to challenge outdated interests and goals. In this thesis I use two important concepts that encapsulate Chevalier's thought on industry: *l'industrie intelligente* and *l'utilité publique*. The former discussed innovation and constant vigilance concerning the impacts of industry on social and natural environments, while the latter stressed the importance of cultural and commercial exchange and the responsible organisation of capital, especially relevant when concerned with public works. If he emphasised throughout his career the importance of developing the productive capacity of industry, both these concepts suggest that Chevalier did not favour uninhibited industrial growth and ruthless profit seeking when this meant pillaging social and natural environments without consideration of present and future generations. The case of Chevalier the industrialist and the railway

tunnel linking France and Britain in 1875 was an expression of l'industrie intelligente and l'utilité publique. The notion of Chevalier providing a degree of transparency to the railway project is important, if not entirely consequential, to show private interests collaborating with government by disclosing cost structures and abiding by regulation. So l'utilité publique also comprises an analysis of private capital in the context of public interests. If market power represents the ability to control price and thus the possibility of drawing excessive profits from industry, to the detriment of consumers and society, then l'utilité publique, examined in the case of Chevalier and the tunnel project, also represents industrial and government leaders attempting to redress market oversights, to signal and monitor the abuses that result from the inadequate organisation of capital by deliberating in an open forum on concerns that directly influence the public good. In short, the tunnel project reveals his attempts to adequately organise his capital to complete what Chevalier believed was an important public project. The thought and work of Chevalier the political economist concerned with industry and social welfare presented in this thesis define the ideology known as Saint-Simonism as a challenge from within the industrial structure to the inadequate organisation of capital.

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