
EXPLORING HUMAN DIVERSITY: A DOSSIER DEVOTED TO DISABILITY HISTORY /
EXPLORANDO LA DIVERSIDAD HUMANA: UN DOSSIER DEDICADO A LA HISTORIA DE LA DISCAPACIDAD

A PLEA FOR COMMONALITY: DISABILITY HISTORY, DISCOURSES OF REHABILITATION, AND THE INDIVIDUAL

Pieter Verstraete

KU Leuven. Centre for the History of Education. Faculty of Psychology and Educational Sciences. Belgium.
Email: pieter.verstraete@kuleuven.be

Frederik Herman

University of Luxembourg. Institute of Education and Society. Maison des Sciences Humaines. Luxembourg.
Email: Frederik.herman@uni.lu

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ABSTRACT: Since the late twentieth century, disability history has grown out of its infancy. Scholars from a variety of backgrounds have increasingly become convinced of the value of looking at the past through the lens of disability. Many studies have focused on the constructed nature of disability and thus deliberately tried to deconstruct contemporary distinctions between able-bodied and disabled individuals. By positively revaluing the particular position of the individual with disabilities on the basis of historical narratives, an attempt was made to counter ongoing tendencies of discrimination and oppression. In this article, we would like to remind the reader of another approach which sometimes runs the danger of being snowed under, namely a historical venture that seeks to uncover commonalities: places where the distinctions between persons with and without disabilities are temporarily forgotten and/or erased, moments when the boundaries between the self and the other are being reconfigured. In order to do so, we will draw on an influential discourse from the history of disability itself: the discourse of rehabilitation. Going back to the early twentieth century, we will present the work of French scientist Jules Mardochée Amar and two Belgian disabled soldiers from the First World War. Amar's ideas on rehabilitation would prove influential for the actual practices of rehabilitation during and after the war. The two Belgian disabled soldiers were retrained in a professional institute for rehabilitation established by the Belgian government in the north of France. By juxtaposing Amar's discourse with the experiences of the two Belgian soldiers, we will demonstrate how, besides the discursive individual of rehabilitation, one also can find moments when that individual is absorbed by a real and tangible commonality. As a consequence, everybody — whether able-bodied citizen or mutilated soldier — becomes part of a community of equals.

KEY WORDS: Rehabilitation; Discourse; Experience; World War One; Commonality.

UN ALEGATO A FAVOR DE LO COMPARTIDO: HISTORIA DE LA DISCAPACIDAD, DISCURSOS DE REHABILITACIÓN, Y EL INDIVIDUO

RESUMEN: Desde finales del siglo XX la historia de la discapacidad ha madurado. Investigadores de muy diversa formación se han convencido cada vez más del valor de mirar al pasado a través de la lente de la discapacidad. Numerosos trabajos se han centrado en el análisis de la naturaleza construida de la discapacidad y, en consecuencia, han intentado de manera deliberada deconstruir las distinciones actuales entre las personas sin discapacidades y las personas discapacitadas. Reevaluando positivamente la particular posición del individuo con discapacidades sobre la base de narrativas históricas, este artículo intenta mostrar las tendencias presentes de discriminación y opresión. Con este trabajo nos gustaría además recordar al lector otro tipo de aproximación que, en ocasiones, corre el peligro de quedar oculta, concretamente la tarea histórica que intenta desvelar lo que se comparte: lugares donde las distinciones entre las personas con o sin discapacidades son temporalmente olvidadas y / o borradas; momentos en los que las fronteras entre el yo y el otro son reconfiguradas. Para llevar esto a cabo, vamos a utilizar un discurso de gran influencia dentro de la historia de la discapacidad: el discurso de la rehabilitación. Retrocediendo hasta el comienzo del siglo XX, presentaremos el trabajo del científico francés Jules Mardochée Amar y de dos soldados belgas con discapacidad de la Primera Guerra Mundial. Las ideas de Amar sobre la rehabilitación influyeron en las prácticas de rehabilitación desarrolladas durante y después de la guerra. Los dos soldados belgas discapacitados fueron rehabilitados en un instituto para la rehabilitación profesional establecido por el gobierno Belga en el norte de Francia. Al yuxtaponer el discurso de Amar con las experiencias de los dos soldados belgas, demostraremos cómo, junto al discurso individual de rehabilitación, pueden encontrarse también momentos en los que el individuo es absorbido por una "commonality" -un conjunto de características comunes- real y tangible. Como consecuencia de esto, todo el mundo — ya sean ciudadanos físicamente capaces o soldados mutilados — pasa a formar parte de una comunidad de iguales.

PALABRAS CLAVE: Rehabilitación; Discurso; Experiencia; Primera Guerra Mundial; Commonality.

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INTRODUCTION

In an article published on November 12, 1937, in the official journal of the Belgian National Association of War Invalids, *De Belgische Verminkte*, Jules Smet recalled the events that followed upon the announcement of the Armistice. Jules Smet was one of the Belgian soldiers who came out of the war permanently disabled. Like many of his fellow disabled comrades, he was retrained at the official Belgian rehabilitative institute founded at Port-Villez, a small village situated at a distance of seventy kilometers from Paris. When the news of the Armistice reached the Belgian Institute for Rehabilitation, most of the soldiers were busy in their classrooms or work studios where they learned a new trade, received primary education or continued their prewar higher education. Eighteen years later, Jules Smet remembered sitting in a classroom listening to a history lesson. As he recalled, the class dealt with the 1302 Battle of the Golden Spurs. At the very moment when the teacher told his audience of mutilated and invalid soldiers about that symbolic moment in Flemish history, there was a loud bang on the door:

Boom, boom, boom ... All of a sudden the teacher's speech was interrupted by someone forcefully knocking on the door. "Let's go, comrades, no more classes!!! War's over, it's the Armistice!!!" The door of our classroom was opened and the sound of clamorous voices made us sit down for a while, ignorant as we were of what was happening ... The barracks emptied out, and a long and chaotic looking queue of human wrecks left the camp. At that moment nobody paid attention to his impairment. The lame and legless could be found in the first row, seated as they were in their wheelchairs and pushed by lame or one-armed men. The one-legged men ran as fast as they could on their crutches, and the blind were dancing behind their guides. In the village of Vernon the streets were filled with joy. The local civilians mingled with the cheerful Belgians ... There were endless embraces. There was a spontaneous demonstration and music everywhere. Very soon the enormous joy that reigned over the streets of Vernon engulfed the long rows of cheering soldiers (Smet, 1937, p. 12)¹.

Jules Smet's memory of that particular day in November is a powerful example of how some events have the potential to rally people around something bigger, making them forget what distinguishes them from each other. The news of the Germans having signed the Armistice, the prospect of a peaceful future erased the visible mutilations. Instead, there was joy, renewed hope, and a sense of belonging to something bigger. In a way one could say that the festivi-

ties temporarily highlighted what binds individuals together rather than what separates them. In the words of Jules Smet: "The local civilians mingled with the cheerful Belgians". The word 'temporarily' needs to be underlined, however, because even in the memory of Jules Smet the wonderful atmosphere of that day was bound to end: "But everything has to come to an end, even this glorious day of the Armistice with its endless feast of dancing, singing and drinking ... The men walked heavily on the steep road and faded away in the grey fog of the daybreak" (Smet, 1937, p. 12).

This dissolving of the individual into a larger collective of equal human beings—even if only temporary—contrasts sharply with the way the disabled individual was approached in the discourses of rehabilitation. In what follows we will explore the important place attributed to the individual in World War One discourses on rehabilitation.² We will do so by taking a closer look at the rehabilitative discourse encountered in documents related to the official Belgian rehabilitation institute in Port-Villez, the insights and theories of the French scientist Jules Mardochée Amar, and the diaries of two Belgian disabled soldiers, Jules Smet and Gustave Groleau, who lived and studied at the Port-Villez institute during the war.³ By contrasting the above-mentioned memory of Jules Smet with the way the individual was depicted in World War One rehabilitative discourses and practices, we deliberately aim to counterbalance the contemporary emphasis on the individual in theories and practices of care. As a consequence of our neoliberal *zeitgeist*, attempts to emphasize and define what binds us together are, indeed, frequently met with suspicion. Although we are definitely aware of the negative consequences of communist and national-socialist understandings of commonality for, among others, persons with disabilities, recent evolutions in social theory and philosophy encourage us to believe in the possibility of thinking about commonality in new and refreshing ways.⁴ By carefully exploring our past, the disability historian can sustain this ongoing search for new understandings of what commonality might mean.

THE BELGIAN INSTITUTE FOR OCCUPATIONAL REHABILITATION AT PORT-VILLEZ (FRANCE)

Although no exact numbers can be given, it is estimated that after the Great War ten million soldiers needed to cope with some kind of disability.⁵ Some had respiratory problems or had lost their vision as a result of their exposure to gas. Others had had one or more limbs amputated. And still others had lost

their sanity on the battlefields of the First World War. Already in the early days of the war, the Belgian soldier Franz Raes had a premonition of what the world would look like after the war was over. On a postcard he sent to his brother Raes he drew a gaunt skeleton that was held up by two wooden crutches. While the body tried to keep itself erect, the head was replaced by a globe dominated by two cannons. Raes' visionary drawing perfectly symbolized the huge challenges these wrecked bodies and minds would pose to all of the belligerent nations. The caption underneath the drawing —“Contemplations on the war: The world is hobbling on crutches”— speaks volumes (Jacobs, 1985, p. 151).

Franz Raes was not the only one to have anticipated this future. Belgian authorities too very soon became concerned about the increasing number of soldiers mutilated by warfare. Of the 170,000 soldiers that the Belgian army counted at the start

of the war on August 4, 1914, only 65,000 soldiers were left in November 1914. As a result of the overwhelming onslaught of the German forces, many soldiers were wounded or fled to the Netherlands where they would be interned for the remainder of the war in refugee camps. Of those wounded during the early battles, some were evacuated to England, hospitalized in an occupied country or transported to the north of France. After these tumultuous first months, Belgian disabled soldiers could be found in the Netherlands, occupied Belgium, France, and England.⁶ Eventually initiatives would be taken in all of these countries to alleviate the suffering of these soldiers, but the first region to make a concerted effort to improve their lot was the north of France where the Belgian government itself had retreated.

In July 1915, construction began at the private estate of the Belgian Baron Baeyens to build an occupational rehabilitation institute for the Belgian disabled soldiers who were considered unfit for further duty in the trenches. After initially having dismissed these soldiers from the army —based on the widespread idea that the war would be over by Christmas— Belgian military authorities in November 1914 considered this particular practice no longer suitable for a variety of reasons. The first set of reasons one can find in the archives documenting the establishment of the institute is related to national duty. In return for the sacrifices these soldiers had made, the nation needed to give something back. Some of these soldiers had voluntarily sacrificed an arm, a leg or their eyesight while fighting for the freedom of their country, so now the nation had the duty to offer them something in return (De Paeuw, 1918, pp. 5-8). Besides emphasizing the duty of the nation, the sources also mention a variety of military and economic reasons for the establishment of the Belgian Institute for Rehabilitation. There were definitely fears that this contingent of disabled soldiers would become a burden on the nation once the war was over. By offering them an opportunity to learn a new trade or teach them how to work in their old trades despite their disability, the state sought to avert the risk of the total dependency of these disabled soldiers. Not only would they, after having completed their rehabilitative schemes, be able to support their households, they would also be capable of contributing to the reconstruction of the homeland, which had been destroyed by the German occupation. Besides these nationalist and economic reasons, there is still another motive to be found for the emergence of the Port-Villez institute. The mutilated soldiers who had been dismissed from the

Figure 1: “The world is hobbling on crutches,” Franz Raes © Flanders Fields Museum, Ypres, Belgium



army at the beginning of the war and who wandered around France and England were thought to weaken the morale of the population. Being confronted with the cruel consequences of the war, the population would no longer be willing to volunteer for the war, or so it was thought. By gathering these 'rambling human wrecks' in an institute for occupational rehabilitation, it was hoped to keep alive the fighting spirit of the population.

Time and again the nation appears as the background against which the necessity of rehabilitative practices was legitimized. It was the nation that needed to do something in return or it was the prospect of the rehabilitated soldiers contributing again to the nation in the nearby future that was used to highlight the usefulness of rehabilitation. To what extent the disabled soldiers themselves incorporated this nationalist discourse is difficult to ascertain. There are clues, however, from which one can deduce that not all soldiers mutilated by war were pleased with the place attributed to the nation in the discourse of rehabilitation. For example, Jules Smet, in a series of articles entitled *Kampherinneringen Port-Villez* (Memories of the Camp at Port-Villez), recalled that many of the disabled soldiers explicitly criticized the nation. According to Jules Smet, their French teacher at one point asked the invalid soldiers to write an essay. With most of the Flemish soldiers not being very fond of French grammar to begin with, the topic served to further inflame passions:

- Dear friends, we are going to write an interesting essay which has as its subject: What I am planning to do for my country after I have returned to my family ... All of a sudden, all of the men furiously raised their voices.
- What did he say? What we are still planning to do for our country! As if we have not done enough, we have given our flesh. Do they expect us to give our bones, too?
- Is it in return for the twenty francs a week that we still should do something for our fatherland?
- I first want them to pay us a decent wage ...
- As if we have not yet suffered enough ...
- I would like them to say what they are going to do for us!
- Look, this is for our fatherland, a person in a corner shouted and slapped his ass (Smet, 1956a).

The contrasting attitudes towards the nation encountered in the discourse of rehabilitation and the lived reality of the soldiers themselves can also be found in the descriptions of the Abbey of Mortain, a branch of the Port-Villez institute. Whereas in Port-

Villez disabled soldiers learned a new trade, in Mortain they could pursue more theoretical studies for a career in administration or teaching. Although only a minority of the disabled Belgian population ended up at Mortain, the institute was frequently presented as the flagship of rehabilitation and played an important role in military propaganda. On March 2, 1916, for instance, the official journal of the Belgian army, *De Legerbode/Le courriel de l'armée*, published an article entitled "A Secure Future for Our Seriously Injured" on its front page. After having introduced the institute at Mortain, the author of the piece emphasized its importance by referring to the fact that the graduates of Mortain would eventually be capable of replacing the Germans who at that time occupied important functions in Belgian industry:

In a lovely region, in a healthy building, well fed, nicely housed, educated for the future and supervised by fatherlike officers, our courageous wounded will work hard in order to complete their intellectual training. As a result Belgium will be protected against the German occupiers who continuously try to insinuate themselves into the offices of our companies, banks and industry by replacing these occupiers with those who courageously became disabled on the battlefield.⁷

The representations of both the institutes at Mortain and at Port-Villez in *De Legerbode* clearly had the intention to undermine and destroy the widespread idea that becoming disabled as a result of the war would be worse than dying heroically on the battlefield. The war-disabled not only could continue their fight against the Germans by producing material needed in the trenches or, for instance, by continuing their studies in order to replace the Germans working in Belgian banks once the Germans were defeated. They were also promised a bright future in which they would still be able to fulfill their masculine roles and take care of their households, wives and offspring. In combination with the central place attributed to the nation and the continued possibility of contributing to the ongoing warfare, the rehabilitative discourse emphasized the disciplined, healthy and intrinsic motivation of the disabled soldiers themselves. In another article in *De Legerbode*, for instance, the anonymous author was very pleased to have found out that, although more than 2,000 soldiers were gathered at Port-Villez, only a handful of officers were needed in order to maintain discipline at the institute. Again the memories of Jules Smet help us correct this propaganda image of the institute for rehabilitation. While Jules Smet's reminiscences cannot, of course, be considered an objective account of what happened at

those institutes, they stand in marked contrast to the official representations of rehabilitation and of the institute of rehabilitation. This is how Smet recalled his stay at the Mortain institute:

We had a good life over there. More than one soldier had a good relationship with the inhabitants of that lovely village and were frequent guests in both the poorer and wealthier houses. Many went to the local cafés. Some drank liquor and triple-sec as if they were pints. The doorstep of the institute was well aware of this. This is what happened often: The building had four floors. Well, those who lived on the fourth floor did not want to go up and down the stairs too often. If the soldiers on that floor drank too much (and that happened more than once a week), they just opened the window and threw it all up. If someone needed to pee at night, the same procedure was followed ... The officer responsible for the institute was very disturbed by this and many times an official investigation was launched in order to identify the men. No soldier, however, could be found guilty, because all, to a man, disapproved of such kind of behavior (Smet, 1956b).

Besides the tension between the official discourse of rehabilitation and the lived reality of rehabilitation, there is another important observation to be made when going through the pamphlets, monographs and memories about the rehabilitation at Port-Villez and Mortain, which has to do with the important place reserved for the individual. If the nation was indeed the frame of reference against which rehabilitation as such was legitimized, the individual and individualizing techniques were the main means by which the twin goals of boosting economic productivity and morale were to be achieved. One of the most striking features of the Belgian discourse of rehabilitation was the fact that the soldier himself was given an important voice in his choice of a particular trade or subject of study. Once his surgical treatment was finished and the soldier was considered unfit for further duty on the battlefield, the disabled soldier was brought to Port-Villez or Mortain where on admittance a meeting was organized between the soldier and those in charge of the medical, technical and educational governance of the institute. In the course of this conversation the soldier was given the opportunity to state his preferences about his occupational future. Of course his new bodily configuration also needed to be taken into account, but in order to enhance successful rehabilitation it was stressed time and again that the soldier himself should have the last word on the choice of the trade or occupation he wanted to learn. In his book *The Vocational Re-education of Maimed Soldiers*, Leo De Pauw devoted an entire chapter to the method of helping the soldier in his choice of occupation. According to De Paeuw,

[t]here are those who believe that the choice of vocations for the maimed lies entirely in the domain of the doctors. We are not of that opinion ... As a general rule, the doctor should interfere only in a negative sense, in order to indicate those vocations which are barred to candidates with certain kinds of injuries. After that, the choice of the trade should depend on the tastes and aptitudes of the man himself, on his probable success in this particular vocation in the locality where he intends to settle, and finally on his intellectual development, for there are trades which demand a certain amount of positive knowledge (De Paeuw, 1918, pp. 27-28).

If the choice made by the soldier proved to be wrong, he could revise his choice, for every rehabilitation trajectory started with a two-week trial period. A close friend of Jules Smet, who also wrote for the newspaper of the Belgian National Association of War Invalids, recalled that he tried to become a painter, a typist and a waiter before he eventually became a diamond cutter (Willems, 1937).

If the site of the Port-Villez institute with its seventy barracks had the look of a collective enterprise, its functioning was characterized by an individual approach to the disabled soldiers, which was rather unusual compared to the ideas about education prevalent at that time (Depaepe, 1999). Pre-war school culture indeed was predominantly conceived as a collective enterprise which did not require teachers to take an individualized approach. Although some teachers had criticized this collective approach to the school population already before the war, it seems that the First World War and the experiences at Port-Villez catalyzed a process leading to the individualization of regular education in the interwar period.⁸ In order to explain the individualizing impact that the discourse and experiences of rehabilitation at Port-Villez had on regular education in Belgium, it is worth noting that Leo De Paeuw, who was in charge of the educational department at Port-Villez, would later become Inspector General of Primary Education. Explaining the school reforms he wanted to conduct, De Paeuw in his writings referred several times to what was going on at Port-Villez and how these experiences convinced him that education should be individualized —not only for disabled adult soldiers, but for children too. Just like the educational process was adapted to the particular bodily characteristics of the mutilated soldier, regular education should take into account the individual qualities of each and every child in order to maximize his or her chance for successful instruction.

Besides the individualized character of the re-educational process itself, the emphasis on the individual was also reinforced through the use of individualizing techniques such as cards that tracked the class attendance of individual soldiers, individual reports, and personal files which were kept for every disabled soldier at Port-Villez. These attendance cards, aptitude cards, and reports had, of course, a disciplinary purpose, aiming to keep the soldier in line with the rehabilitative discourse. In order to do so, they created individuals whose lives and behavior were tracked and translated into tables and comments written on small cards that the soldiers should carry with them. From the almost anonymous victim on the battlefield the disabled soldier was turned into a person that needed to be studied and known in order to be able to eventually conquer the German aggressor. This particular process of individualization against the background of a larger collectivity was both sustained and produced by processes of scientificification. In the next section, we will thus trace the intimate connections between scientific study, the individual, and rehabilitation by focussing on the work of French scientist Jules Amar.

Figure 2. Individual attendance card in use at Port-Villez © Private collection PV

JULES AMAR, REHABILITATION, AND THE SCIENTIFICATION OF THE INDIVIDUAL

The methods applied at the Military Professional School for Mutilated Belgians in Port-Villez, at the Centers of Manual Labor and Workshops in Rouen, which was affiliated with the Anglo-Belgian Hospital Roi Albert I set up to accommodate wounded allies, and at some other écoles de rééducation professionnelle in France and Italy (Amar, 1916a, p. 367; 1916b, p. 32) were developed or at least inspired by the industrial ergonomist and fatigue expert Jules Mardochée Amar (1879-1935),⁹ who dealt with the physiology of occupational labor throughout his career. His mission in life was to uncover and establish the scientific foundations of human labor (Amar, 1914; 1917a; 1917b; 1920). The First World War urged Amar to (re-) orient his focus towards rehabilitative practices and to apply his scientific expertise in the entangled fields of experimental psychology, psychophysiology, biomechanics and fatigue studies (labor sciences) for the design of prosthesis, the restoration of the mutilated bodies with mechanical limbs, and the vocational orientation and training of the ‘maimed heroes’ (Amar and Painlevé, 1916, p. 2)¹⁰. At the opening of the Conference on Initiatives Related to the Mutilated on January 12, 1916, the inauguration speech was given by Paul Painlevé, Minister of Public Instruction and Fine Arts as well as Minister of Inventions for the National Defence. Showing his strong belief in the new labor sciences he said:

They [who know Amar] know that in peacetime, Jules Amar, director of the Laboratory of Occupational Labor, felt the need to implement the scientific method (real science) rigorously and comprehensively, in order to adapt it to all those who are missing a limb yet are still able to work. He [Amar] will explain what hope those who want to remain ‘complete men’ should cherish, despite nature’s whims, and demonstrate that human sciences, in many cases, can repair what seems to be irreparable and inspire hope in the hearts of those who are hopeless (Amar and Painlevé, 1916, p. 2).

PREWAR PERIOD

Amar was born in a modest home in Tunis on November 14, 1879, as the oldest son of the Algerian Jewish merchant Charles Amar, a naturalized Frenchman, and the Tunisian Marie Dana (Monod and Monod, 1979, p. 227). In 1898, Amar, who had graduated in literature and philosophy in Algiers, traveled to Paris, where, after briefly studying theology at the French Rabbinical School, he completed numerous

courses at the Sorbonne in botany, biochemistry, general chemistry, general physiology, and mineralogy (Amar, 1919, pp. 1-2).¹¹ In 1905 he became an assistant at the Medical Physics Laboratory at the Medical Faculty in Paris under the supervision of the physiologist Georges Weiss. Shortly afterwards, he was appointed head of the laboratory, a position he would hold until 1913. During the same period he became a member of the French Society of Physicists and of the Paris Anthropological Society (1907), completed his doctorate on the topic of *Le rendement de la machine humaine* (Amar, 1909), accomplished several scientific missions in Italy and North Africa at the request of the Ministries of Public Instruction and of Labor from 1907 until 1909 and was appointed a member of the Commission on the Physiology of Labor at the Ministry of Labor in 1911 (Amar, 1919, pp. 1-2). The latter was established in response to the introduction of Taylorism in France around 1910 and was tasked with scrutinizing the harmful effects of industrialization on working conditions (Monod & Monod, 1979, p. 230). In line with this committee, a temporary Research Laboratory on Muscular Activity in the Context of Labor was founded in 1913 at the National Conservatory of Arts and Crafts (CNAM). The same year, Amar was appointed director of this psychophysiological laboratory (Monod & Monod, 1979, p. 230; Ouvrier-Bonnaz, 2010). In 1914 he published his key work *The Human Motor, or The Scientific Foundations of Labor*, in which he linked the human organism in the context of labor to the laws of general mechanics and modern physiology and elaborated on, among other things, the ‘architecture’ of the human body, the muscular ‘motor,’ nutrition and energy expenditure, the productivity of the human machine, the physiological effects of work, notably fatigue, man and environment, and balance and movements of the human body at work (Herman, Priem, and Thyssen, 2015, p. 49). This work soon became the basis for human engineering in Europe and the United States (Klette and Tee, 2008, p. 13). Amar clearly strove for “social efficiency” (Rabinbach, 1995, p. 128) or a “moderate Taylorism” (Herman, 2014, p. 610). He was not so much interested in industry’s blunt quest for maximum productivity—which, in his view, inevitably resulted in exhausted and demoralized workers—but rather in adapting the working conditions to the workers’ physical aptitudes and in rigorously training their bodies—for instance, posture, handling of tools, speed and accuracy of the performance—so that they would function optimally and constantly. The human motor metaphor¹²—through which Amar linked bodies and machines on the eve

of the First World War—was almost a foreshadowing of the literal connections he would make between the mutilated bodies and the mechanical prosthetics. When the war broke out and the temporary laboratory was closed down, Amar was mobilized on August 1, 1914, but was made exempt from military service a few months later because of his feeble health (Monod & Monod, 1979, p. 231).

THE LABORATORY FOR MILITARY PROSTHESIS AND OCCUPATIONAL LABOR DURING THE WAR

The disastrous impact of the Great War—a world-shattering machinery, devastating and maiming bodies in an unprecedentedly gruesome fashion with the aid of new technologies—was disseminated by “macabre anecdotes” of shattered bodies and horrible ‘marionettes’ limping about (Panchasi, 1995, pp. 118-121; see also Hughes & Blom, 2014; Blom, 2014) which further stirred up fears that there would not be enough able-bodied people to rebuild society. Rendering “the muscular male bodies of the glorious victims of this most horrible of wars” (Rabinbach, 1992, p. 266; Hughes & Blom, 2014), again capable of performing useful work in different sectors, not least in agriculture¹³ and “restoring” the “emblems of [French] national strength” (Tumblety, 2012, p. 1) became the “pioneering”¹⁴ mission of Amar (McLennan, 1916, p. 5). His experimental approach, the devices he developed—ranging from prosthetics to testing and training apparatuses such as the ergometric bicycle, chirograph, dynamographic pear, and arthrodynamic—and the ideas he elaborated on vocational orientation and retraining processes in his capacity as director of the newly created Laboratory for Military Prosthesis and Occupational Labor (1915), as a member of the Orthopedic Commission of the Ministry of War and as a member of the National Office of Mutilated Persons and of the Committee for the Improvement of the Training of the Maimed at the Ministry of Labor (Amar, 1919, pp. 1-2; Monod, 1994; Collard, 2014) had international reverberations (Dobell, 1916). A good example is his “working arm”—a prosthesis to which a series of basic tools and a natural-looking *main de parade* (parade hand) could be attached—which made him famous on both sides of the Atlantic (Panchasi, 2009, pp. 19-20). Both national and international scientists as well as the international press picked up on his experimental scientific methods and devices (McLennan, 1916; de Paeuw, 1918, p. 144; see also Brown, 2002). Amar himself actively helped to disseminate and propagate his ideas by producing numerous brochures and scientific memoirs and by

giving several talks on the functional re-integration of maimed soldiers.

Exemplary in this respect is his talk on “The Prosthetic Device and the Employment of the Mutilated,” which he gave during the above-mentioned conference at the *Palais de la Mutualité* and opened with the promising words:

The time is right, I believe, to organize the employment of the injured so that everyone finds his real place in the social machine, and contributes as well as he can to its functioning, and as such marches to prosperity. The goal of this organization is hence the rational utilization of the human capacities, also when these are reduced, with a view to normal life (Amar & Painlevé, 1916, p. 3).

He goes on to describe the dire need for an optimal use of all the energy sources of the nation —in a ‘rational and scientific way’— in the interest of further industrial, economic and agrarian expansion. This required effective methods and devices to ascertain the capabilities of each invalid and a systematic method to fortify the remaining professional aptitudes (Amar & Painlevé, 1916, p. 4). He believed that eight out of ten maimed soldiers could be re-educated and would be able to take up their position in the social fabric after finishing the training program —as *hommes complets*, or complete human beings (Amar & Painlevé, 1916, p. 2), or at least as complete as possible. This program consisted of three main stages: (1) functional restoration, (2) prosthetic phase, and (3) occupational reeducation. This phased treatment should be offered —to the ones accepted by the Ministry of Interior Af-

fairs— as soon as the wounds were healed. The career choice would be made during the treatment, taking into account not only the man’s previous experience but also his predilections and his physical, psychological, and intellectual capacities (Amar, 1916, p. 31) — dimensions that were carefully observed, mapped, recorded (see fig. 3), and trained.

Phase 1: Physical Screening and Training of the Human Motor

By means of a systematic and cumulative physiological training, with the aid of exercise machines, Amar wanted to combat muscle and joint stiffness, muscle atrophy and to render the tendons and cartilage tissue flexible again. This “intelligent mechanical therapy,” as he described it, was based on scientific motion studies conducted with the aid of recording tools and/or self-recording training devices. Symbolizing the faith in unceasing scientific progress, these tools and devices enhanced reliability and the “celebrated” objectivity and made it possible to record the recovery process (Amar & Painlevé, 1916, p. 9). Not only the mutilated limb, but the entire body —the sensory organs, heart, lungs and central nervous system— was subject to a thorough medico-physiological screening with a view to optimizing its capacity for work. In other words, one wanted first to ascertain the organic defects and the remaining physical abilities and then to improve the condition of the entire body and help it fight fatigue. Amar’s speech did not talk much about the psycho-emotional aspects of the treatments, but we know that some attention was given to the psychological impact of the traumatic experiences and

Figure 3: Occupational Aptitude Card (Galtier-Boissière, 1917, p. 11).

DIRECTION — Téléphone		ÉCOLE SUPÉRIEURE DE RÉÉDUCATION (Adresse :)		VILLE DE le 191		
FICHE D'APTITUDE AU TRAVAIL						
SUJET N°		APTITUDES PHYSIQUES.		APTITUDES PSYCHO-PHYSIOLOGIQUES.		
				APTITUDES PROFESSIONNELLES.		
Nom : Prénoms : Âge : Situation militaire : (Lieu : Cause : Blessure reçue le : Région : Interventions : Tissus lésés : Complications : Résultats : Profession antérieure : Personnes à sa charge : Femme : Enfants : Parents : Adresse :		Poids : Taille : Debout (D) : Assis (A) : Coefficient thoracique : $\frac{A}{D} =$ Liberté des mouvements : Longueur du membre sain : Dimensions de ou des moignons : Puissance musculaire utile : Etat physiologique du sujet : Perte de capacité fonctionnelle : Appareil de prothèse approprié :		Degré d'instruction : Générale : Technique : Etat des réflexes : Equation personnelle : Vocation : Goûts : Caractère : Orientation professionnelle qui convient :		Etat du réapprentissage : Dispositions à observer dans le travail : Durée probable de la rééducation : Perte de rendement journalier du sujet : Observations générales : Signé : Le Directeur,

the side effects of mutilation (for instance, phantom limb), but this remained a rather marginal concern, as it was strongly believed that mental health and self-image would automatically improve as the body was trained, completed with a prosthesis, and able to work again. “The disabled man must be made to understand, and he will easily grasp the fact, that work alone is the regenerator and sole fortifier of his body and his mind” (Amar, 1916b, p. 32; see also Amar, 1916a, p. 367).

In this phase, special emphasis was put on training the mutilated limb, more specifically on the “sensitive training of the stump”, as the reduced power and sensitivity, trophic disorders and/or sensory disturbances of the stump threatened to undermine the benefits of the prosthesis (Galtier-Boissière, 1917, pp. 4-6, p. 36). Performing progressive movement exercises (ascending and variable pressure) with the help of training and measuring devices —such as the ergometric cycle (see fig. 4)— could correct these deficiencies. The use of the appropriate effort could be learned as the device registered the smallest nuances in pressure. In this phase, mental, sensory, and behavioral ‘re-programming’ were key. As a result, it was no longer the damaged nerves that controlled the missing limb, but the training device and the future prosthesis.

Figure 4 Two maimed soldiers training on an ergometric bicycle in Amar’s Laboratory for Military Prosthesis and Occupational Labour (Galtier-Boissière, 1917, p. 7).



Phase 2: Connecting Maimed and Mechanical Limbs

Amar designed and patented a lot of artificial limbs (Monod & Monod, 1979, p. 22), such as the “articulated hand” and the “working arm,” which were manufactured and customized by the orthopedist Cauet (Colas des Francs, 1984). Little attention was paid to aesthetics or “drawing room considerations,” as a contemporary called it (Brown, 2002, p. 271; Panchasi, 2009, p. 19). The focus was on functionality.

[W]e strive to compensate the deficit caused by inability with an orthopedic system; we adapt suitable prosthetic devices to the mutilated. ... Our manufacturers strive to harmonize these devices optimally with the future labor functions of the mutilated. ... While copying nature. ... [t]he prosthesis is not ... intended to replace an absent member or segment, but to supplement the eliminated or severely affected function (Amar & Painlevé, 1916, p. 6, p. 9).

In Amar’s opinion, the abled as well as the disabled body was the principal site of a man’s productive value and, in case of mutilation, had to be restored by providing supplementary/artificial limbs and adapted to the existing factory equipment (Brown, 2002, p. 335; Panchasi, 1995). Amar’s approach of adjusting the cripple to the workplace —what Giese (1928) later would call “subject psychotechnics”— contrasted strongly with the idea of adapting the environment (tools, procedures, etc.) to the mutilated —“object psychotechnics” or environmental prosthetics—, which also gained ground at the time.

The focus on body parts and the reduction of the human limbs to their mechanical and economic function —which began with the industrialization and rationalization of labor (Panchasi, 1995, p. 122, pp. 125-127)— intensified further, tending almost to ‘debody’ or ‘dephysicalize’ the human limb. Amar believed that his devices would result in a better use of human energy, which would help the mutilated gain access to trades and occupations that would otherwise remain closed to them. The maimed bodies became projection screens for Amar’s utopia. He imagined the ideal man/worker as a man-machine hybrid, “a God with artificial limbs” (Freud, 2004 [1930], p. 39) with adjustable, removable, replaceable mechanical “auxiliary organs,” which would open up unlimited possibilities (see Brown, 2002, p. 271).

Amar’s positive discourse and blind faith contrasts strongly with the testimony of Gustave Groleau:

At 1:30 pm, I went to the workshop. We continued to work on my artificial fingers that will replace the

missing ones. It took a long time to finish, but it's pretty nice. When I'm wearing gloves, it does not appear that my right hand is crippled; you can see absolutely nothing. I spent my whole afternoon in the workshop. In a few days, I will be given my fingers once they have been customized. After that, they will be polished; I will be fitted a bracelet to wear them easily; they'll give me gloves and everything will be settled then. I will again have ten fingers, two made from wood. They will bend with the aid of small hinges. But I do not think I could ever stand it. It would be too cumbersome and annoying (Groleau, 1918).

Phase 3: Regaining Professional Value / "Rebirth of the Worker"

The last phase began once the prosthetic device was sufficiently customized and the new owner had familiarized himself with his new mechanical limb. This stage consisted of three modules: theoretical training, handicrafts, and in-service training (internship). Theory and general education had to awaken the disabled soldier's latent intelligence and raise his intellectual level, which would enhance eye-stump coordination, as the brain had to 'learn' to control the stump/prosthesis differently. Courses dealt with themes such as the selection of proper tools for specific tasks and the operation of machines (Amar & Painlevé, 1916, p. 15).

The gathering of physiological data during the manual training (for example, speed, accuracy and strength by means of a dynamometer; labor curve by means of an ergograph; variations of the pulse and respiration curve by means of a pneumograph) (Amar, 1919, p. 12) continued in this phase (Amar & Painlevé, 1916, p. 13). Moreover, Amar connected all kinds of ordinary utensils to a dynamograph, by which they became dynamographic tools—for example, the dynamographic hammer, typewriter, pencil and the dynamographic 'Imbert-Amar' file, which recorded the rhythm of the movements and the force used during the performance and generated charts (statistics) that could be analyzed on the spot and be used as 'transparent' learning tools (Amar, 1916b; Amar, 1919, p. 11; see also Herman, Priem, & Thyssen, 2015).

The physiological analysis does not fail to notice any abnormality of which the immediate cause could be a hidden impotence, a poor prosthesis or the inability of the subject itself. In case of an impotent arm or prosthetic device, the recordings (of labor) will show that the intensity of effort is reduced, indicating a determined inability to press or push and to direct the tool. In the irregular curves one can feel the hesitating muscular movement, poorly consolidated, especially as we are at the beginning of the functional training.

The dynamographic curves will be all similar and the chart will reflect a personal, individual character, when the performance—even weakened—is not hindered by the artificial limb (Amar & Painlevé, 1916, p.14).

These 'accurate' and 'objective' experimental physiological measurements and the generated data would allow scientific adjustment, as it provided insights in the level of fatigue and energy consumption and enabled the identification of a pre-determined optimum. Indeed, the economical use of power/energy or, in other words, achieving the maximum amount of work with a minimum amount of energy consumption was central to Amar's approach (Rabinbach, 1992, p. 188; De Bont, 2002). Excessive energy consumption was attributed to factors such as an uncomfortable prosthesis, the wrong body posture or movements, incorrect handling of the tool and/or prosthesis, maladjusted speed or pressure, and had to be transformed into an optimal performance by imitating the 'prototype' by complying with the associated detailed instructions, formulated by Amar on the basis of a series of trial experiments.

Despite Amar's individualized approach, his method also seems to have been informed by a "religious" understanding of commonality. In his opinion, every human organism—abled or disabled, young or old—was malleable and mendable; every 'body-motor' had to become a subject of 'objectified' observation and training with a view to (re-) employment, following the rhythm of the machine imposed by the industry's quest for maximum productivity (Priem and Herman, 2014). In other words, all members of the community were thought of as being defective or even "crippled" and had to be turned into a science-based prototype of the inexhaustible and efficient worker along the same trajectory of authoritative psycho-physiological (medical) testing and training. Moreover, individual traits and differences were often ignored or, to put it differently, otherness was obliterated during the rehabilitation process, as the patients were treated as passive objects (Le Bianic and Vatin, 2007, p. 11) and reduced to numbers and categories generated while collecting 'essential' data and organizing findings into coherent structures (Porter, 1995, p. 77). Amar's rehabilitative discourse and practices may have constructed a frame for identification and imposed a certain image of man, but did not necessarily trigger or create an "imagined community" (Anderson, 2006 [1983]) and a related sense of cohesion and commonality.

CONCLUSION

In this article, we have juxtaposed one of the many discourses of rehabilitation applied to the disabled soldiers of the Great War, namely that of the French scientist Jules Amar, with how disabled soldiers themselves experienced these retraining and rehabilitative efforts. Based on the analyzed sources, we would like to suggest two conclusions. The first conclusion that can be drawn from our historical analysis is that the rehabilitative discourse of Jules Amar was not uniquely focused on disabled soldiers. On the contrary, the disabled soldiers were seen as part of a “crippled” society that needed to be rendered efficient. As such, the distinction between (psychologically and/or physically) disabled and abled faded and was replaced with new ones, such as between persons capable of learning and persons incapable of learning and between valuable trained workers and unskilled workers. Amar’s rehabilitative discourse—comprehensive at first sight—was not a place where distinctions were erased, but rather the breeding ground for new distinctions, which probably hindered the creation of a shared sense of community. Nevertheless, we could trace some moments of lived and shared commonality, such as is also evident in the excerpt from a disabled soldier’s diary below. It is the celebration of the Armistice in the village of Vernon that led to a temporary suspension of the distinction between disabled and non-disabled as both lose themselves in the whirl of joy and cheerfulness. All subjectivities are suppressed and what emerges is a world, albeit temporary, in which human beings celebrate what they

consider to be important. It is communal instances like this that we hope historians of disability will be looking for when they rethink their discipline in the twenty-first century:

The camp is filled with great excitement! Everyone is waiting with great anticipation! At 9 p.m., we closed the workshops. The rumor went that the armistice had been signed. We waited! At 11:45, the official telegram arrived. The Germans had sealed their dishonor. Good! Immediately, the allied flags were hoisted! National anthems were played. I entered the mess. There was a small party. ... At 2 p.m., led by music, all the soldiers in the camp were heading for Vernon: the blind, the amputated, the maimed, everyone was there. The blind were guided by their comrades; those who had both legs amputated were leaning on their carts. We danced and sang like mad. At Vernon, in front of all French hospitals, we played the Marseillaise and Brabançonne. All civilians were following us and dancing with us. It is impossible to describe the excitement! We were ecstatic! Senator Thiebaut wanted to give a speech, but had no luck. We went around town all afternoon. We also went to Vernonnet. We did not feel tired. In the evening, there were Bengal lights and a concert in front of the city hall. Part of the night, we followed the music and it was only much later that I returned. I had a heck of a good time; it reminded me of peacetime, and I was satisfied (Groleau, 1918).

NOTES

- 1 Unless otherwise indicated, all translations from the Belgian or French are our own.
- 2 In his contribution to the *Companion to medicine in the Twentieth Century* Steve Sturdy wrote: “There is much to be gained by looking at the way in which workers’ bodies have been understood and described. Not least, it can throw light on some of the larger shifts in the formulation of social power that have taken place within industrial societies over the past hundred years” (2000, p. 217). Our discussion of Smet’s and Groleau’s war experiences and Amar’s rehabilitative discourse takes up Sturdy’s plea to explore the manifold ways bodies have been and still are to be considered as spaces where power is exerted as well as resisted.
- 3 Before the war, Gustave Groleau (1894-1971) worked as a labourer in the Walloon iron industry. After the war Groleau got married and build up an administrative career in the commune where he and his wife lived. In contrast to the bio of Groleau, we do not possess exact information about
- 4 Jules Smet’s date of birth and death. On the basis of a short telephone conversation with one of his children, René Smet, we do know, however, that Jules Smet lost his wife and two daughters due to a bomb explosion during World War. After the Second World War he got married again. Jules Smet was head of the administrative unit responsible for the construction of the railway between Brussels South and North. Unfortunately, we do not have any other biographical information with regard to the two soldiers.
- 5 For example, one might think of Jacques Rancière’s *The Emancipated Schoolmaster*, Blanchot’s *La communauté inavouable* [*The Unspeakable Community*] (1983) or Lingis’ *The Community of Those Who Have Nothing in Common* (1994).
- 6 For some recent studies related to the history of WWI disabled soldiers, see Anderson, 2011; Bourke, 1996; Cohen, 2001; Collard, 2014; Gerber, 2012; Larsson, 2009; Perry, 2014; Carden-Coyne, 2014; Gerber, 2012; Linker, 2011;

- Verstraete, Salvante & Anderson (2015). Studies like these make clear how the rehabilitative discourse regarding the mutilated soldier substantially differed between nations and regions. Although the baseline of transforming the mutilated soldier again into an economic asset seems to have been a rather universal characteristic of the Western European rehabilitative discourse, many differences can be found with regard to the precise way one wanted to realise this goal.
- 6 For a detailed account of the treatment of physically disabled and shell-shocked Belgian soldiers, see Verstraete & Van Everbroeck, 2015.
 - 7 “Eene verzekerde toekomst voor onze zwaar gewonden” (1916), *De Legerbode*, March 2, p. 1
 - 8 For more information about the connection between the discourses and experiences of rehabilitation at Port-Villez and the school reforms in interwar Belgium, see Verstraete, Simon & Depaepe, 2014.
 - 9 The fact that Amar, once an internationally respected yet controversial psycho-physiologist and fatigue expert (see, for example, Herman, 2014), has fallen into oblivion, seems to be related to the fact that, in 1919, he failed to get appointed to the newly created Chair of the Technical Organization of Human Labor at the National Conservatory of Arts and Crafts (CNAM) (Monod & Monod, 1979, p. 231). This event and the resulting controversies spelled the end of his public career. Despite his major contribution to labor sciences in France, he ended up being overshadowed by his contemporaries, such as the (psycho-)physiologists and industrial psychologists Georges Weis, Jean-Marie Lahy, and Henri (Louis) Le Chatelier (Monod & Monod, 1979, p. 231; Valentin, 1978).
 - 10 See also “The Training of Maimed Soldiers” (1916), *The Engineer*, June 9, pp. 472-473.
 - 11 For more biographical details, see also Monod & Monod, 1979, pp. 227-228; Valentin, 1978, pp. 291-296; Ribeill, 1980, pp. 14-16; Monod, 1994; Rabinbach, 1992, p. 185, p. 351.
 - 12 See, for example, Herman, Priem, & Thyssen, 2015; Gleyse et al., 2002; Patzel-Mattern, 2005.
 - 13 France already suffered from a shortage of agriculturalists before the war. See, for example, the parliamentary discussion in the French Senate on Friday, June 21, 1912. For more information about the (re-)employment of maimed soldiers in agriculture, see Amar, 1916, p. 363; Amar, 1917a; Gires, 1917; Jaudon, 1917; Le Boulicaut, 1917; Lafitte, 1917; Vayssière, 1917.
 - 14 Compared to its neighboring countries, France lagged behind, as it lacked a network of specialized institutes (for example, *Ateliers-écoles pour les estropiés*) as well as systematized and comprehensive programs for the physical rehabilitation of veterans; see Galtier-Boissière, 1917, p. 2.

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