review article UDC: 796.01

received: 2010-09-30

# KINESIOLOGY - THE SCIENCE OF MOVEMENT in Relation to Education, Hygiene and Therapy (CINÉSIOLOGIE OU SCIENCE DU MOUVEMENT at l'education, l'hygiéne at la thérapie)

A piece of the legacy of Nicolas Dally (1795–1862) for contemporary kinesiology scholars and professionals

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#### ABSTRACT

Kinesiology has recently gained full worldwide credibility as an academic discipline in the field of human movement and exercise practice in the area of education, sport, recreation and kinesitherapy, becoming a proper denominator for the field of sport or exercise science. It seems almost compulsory that on the occasion of the introduction of the first issue of Annales Kinesiologiae, a new scientific journal in the field, to remember and speak about Nicolas Dally and his work. In this paper a short biography of the forefather of KINESIOLOGY, or CINÉSIOLOGIE, will be presented as well as how Dally introduced the term and the concept in his book from 1857. It is presented and integrated with some newly available illustrative material. Dally's bibliography based on resources of worldwide relevant library catalogues is added to the references.

Keywords: Dally Nicolas, kinesiology, cinésiologie - kinesiology, history of sport science

# KINEZIOLOGIJA – ZNANOST O GIBANJU

v odnosu do edukacije, higiene in terapije

Del zapuščine Nicolasa Dally-a (1795–1862) trenutnim študentom in strokovnjakom na področju kineziologije

## IZVLEČEK

Kineziologija je na področju gibanja človeka, treninga in vadbe v prostoru edukacije, športa, rekreacije ter kinezioterapije svojo polno verodostojnost kot akademska disciplina dobila šele nedavno. Postala je skupni imenovalec za znanost o športnem treningu in vadbi. Zdi se, da je priložnost prve izdaje nove znanstvene revije s področja kineziologije Annales Kinesiologiae odlična za spomin na Nicolasa Dally-a in njegovo delo. V tem prispevku predstavljamo kratko biografijo očeta KINEZIOLOGIJE oziroma CINÉSIOLOGIE, kot je Dally predstavil termin in koncept v svoji knjigi iz leta 1857. Prispevek prikazuje tudi nekaj najnovejše dostopnega ilustrativnega materiala. Biografija Nicolasa Dally-a temelji na knjižničnih virih, zbranih širom sveta, ki so predstavljeni tudi v poglavju literature.

Ključne besede: Dally Nicolas, kineziologija, cinésiologie – kineziologija, zgodovina telesne vadbe in športne znanosti

#### INTRODUCTION

Over the last fifty years, the name and work of Nicolas Dally have been mentioned numerous times in the context of the development of the academic discipline and science in the area of human movement and exercise.

Some researchers were informed and took into consideration the contributions of Dally (Mraković, 1971; Ilić, 1981; Mraković et al., 1987; Renson, 2000,2002, 2006), some of them had not (Braun, 1941; Kroll, 1981; Park, 1981; Charles, Harris & Hoffman, 2000; Starosta, 2002; Hoffman, 2005).

The first International conference on kinesiology "Kinesiology - Present and Future" organized by the Faculty of Physical Education (currently called the Faculty of Kinesiology of the University of Zagreb) was dedicated to the 140<sup>th</sup> anniversary of the publishing of the book "Cinesiologie" by Nicolas Dally. Two introductory papers opened the conference. The first addressed the present and future of kinesiology (Mraković, 1997) and the second one dealt with the past and included some new insights into the work and life of Nicolas Dally (Prot, 1997).

Although limited time and resources for research were available at the time, the idea of writing a Dally biography has been discovered, and bibliography reconstructed. Facts uncovered are considered sufficient to point out and conclude that Dally could be considered the forerunner or "father" of contemporary kinesiology, in accordance with the title and content of his book "CINÉSIOLOGIE OU SCIENCE DU MOUVE-MENT. dans ses reports avec l'education, l'hygiéne at la thérapie, etudes historiques théoriques et pratiques", which were further developed as a contemporary academic area and a dynamic scientific field in second half of 20th century.

The library search started with information in the National Union Catalog pre-1956 imprints Volume 131, published by Mansel (1971). The largest print union catalog ever published is the **American** *National Union Catalog Pre-1956 Imprints* (NUC), completed in 1981. The NUC of Pre-1956 Imprints is published in 754 volumes, containing over 528,000 pages. The set takes up approximately 130 linear feet of shelf space (about 40 meters).

The achievement of the **American** *National Union Catalog Pre-1956 Imprints* has since been superseded by the creation of large electronic resource sharing networks,

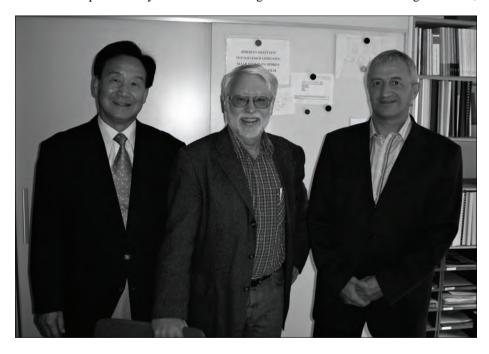


Figure 1: Prof. Ju Ho Chang (Korea), Prof Ronald Renson (Belgium) and prof. Franjo Prot (Croatia) 2007, Leuven paritcipants of the meeting on the occasion of the workshop on sports and peace in Leuven, Belgium on Sept. 21, 2007.

such as OCLC's **WorldCat**. **WorldCat** is an expanding universe of information alternatives which answer the question - why stand alone? WorldCat is a global network of library content and services which uses the Web to let any relevant institution be a part of the global catalog.

Two years later at the Second International conference on Kinesiology, Professor Ronald Renson from the Catholic University of Leuven was invited to present some new insights on Dally and related developments, with a prospective collaboration to take place later on (Renson, 1999, 2005, 2008).

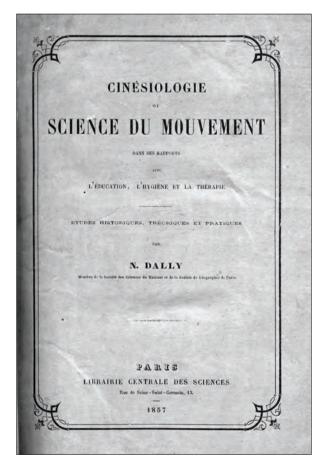


Figure 2: Original front page of Dally's book « CINÉSIOLOGIE OU SCIENCE DU MOUVEMENT. dans ses reports avec l'education, l'hygiéne at la thérapie, etudes historiques théoriques et pratiques «, published by the Librairie Centrale des Sciences, Paris 1857, from the author's personal library.

In the mean time, in the year 2007, the 150<sup>th</sup> anniversary passed almost unnoticed. Only a few passionate researchers met together in Leuven and had a nice time together exchanging experiences on the subject (Figure 1).

Just recently (November 2009) it came to pass that I found myself in possession of an authentic (original) piece of Dally's book "CINÉSIOLOGIE OU SCIENCE DU MOUVEMENT. dans ses reports avec l'education, l'hygiéne at la thérapie, etudes historiques théoriques et pratiques", in very good condition complete with front and back cover. I might add that it is interesting, stimulating and exciting to own this book (Figures 2, 3 and 4).

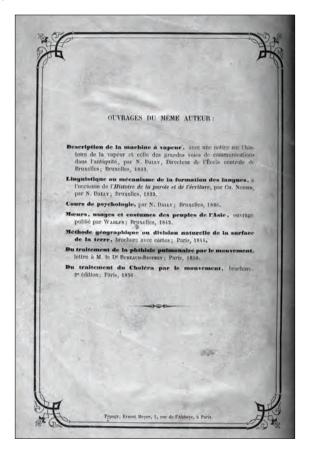


Figure 3: Original back page of Dally's book "CINÉSIOLOGIE OU SCIENCE DU MOUVEMENT. dans ses reports avec l'education, l'hygiéne at la thérapie, etudes historiques théoriques et pratiques", published by the Librairie Centrale des Sciences, Paris 1857, from the author's personal library.

# OUVRAGES DU MÊME AUTEUR :

Description de la machine à vapeur, avec une notice sur l'histoire de la vapeur et celle des grandes voies de communications dans l'antiquité, par N. Dally, Directeur de l'École centrale de Bruxelles; Bruxelles, 4833.

Linguistique ou mécanisme de la formation des langues, à l'occasion de l'Histoire de la parole et de l'écriture, par Ch. Nodier, par N. Dally; Bruxelles, 4833.

Cours de psychologie, par N. Dally; Bruxelles, 1836.

Mœurs, usages et costumes des peuples de l'Asie, ouvrage publié par Wahlen; Bruxelles, 1843.

Méthode géographique ou division naturelle de la surface de la terre, brochure avec cartes; Paris, 1844.

Du traitement de la phthisie pulmonaire par le mouvement, lettre à M. le Dr Bureaud-Riofrey; Paris, 4850.

Du traitement du Choléra par le mouvement, brochure, 2º édition; Paris, 1856

Figure 4: Detail from original back page of Dally's book "CINÉSIOLOGIE OU SCI-ENCE DU MOUVEMENT. dans ses reports avec l'education, l'hygiéne at la thérapie, etudes historiques théoriques et pratiques", published by the Librairie Centrale des Sciences, Paris 1857, from the author's personal library.

Following are some of Dally's published titles (for the period between 1833 and 1856) which were advertised there:

- Dally, N. (1833). Description de la machine a vapeur. (avec une notice sur l'historie de la vapéur et celle des grandes voies de communications dans l'antiquit. Bruxeles.
- Dally, N. (1833). Linguistique ou mécanisme de la formattion des langues. (à l'occasion de l'Historie de la parole et d'élécriture, par Ch.Nodier). Bruxeles.
- Dally, N. (1833). Cours de psychologie. Bruxeles.
- Dally, N. (1843). Mœurs, usages et costumes des peoples de l'Asie. (ouvrage publié par Wahlen). Bruxeles.

- Dally N. (1844). Méthode géographique ou division naturelle de sa surface de laterre. (brochure avec cartes). Paris.
- Dally N. (1850). Du traitement rationnel de la phthisie pulmonaire par le mouvement gymnastique: suivi d'un aperçu sur la nécessité d'introduire l'habitude d'exercices méthodiques dans la vie intérieure des familles: lettre à M. le docteur Bureaud-Riofrey Author. (48 pages).
- Dally N. (1856). Du traitement du Choléra par le mouvement. Brosure 2<sup>e</sup> édition.
  Paris

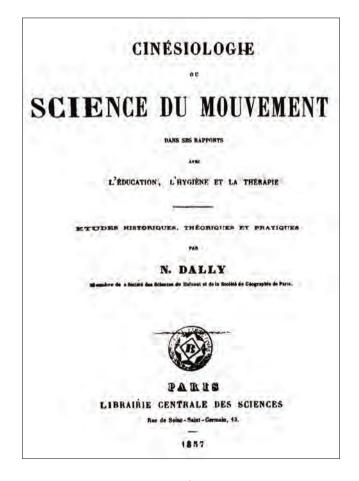


Figure 5: Title page of Dally's book « CINÉSIOLOGIE OU SCIENCE DU MOUVE-MENT. dans ses reports avec l'education, l'hygiéne at la thérapie, etudes historiques théoriques et pratiques «, published by the Librairie Centrale des Sciences, Paris 1857 from Biblioteca Atheneu Barcelonés, Digitized by Google.

At the same Google book project offers to all interested parties the use of a copy from the Biblioteca Atheneu Barcelonés, Digitized by Google (Figure 5):

 $http://books.google.com/books?id=UJu34beZFhgC\&pg=PP13\&dq=CIN\%C3\%89\\ SIOLOGIE+OU+SCIENCE+DU+MOUVEMENT\&hl=en\&ei=hpObTPTTINGLswaq5MGNBA\&sa=X\&oi=book\_result\&ct=result\&resnum=1\&ved=0CC0Q6AEwAA#v=onepage\&q\&f=false$ 

The Institute for Kinesiology Research (IKARUS) at the University of Primorska, Koper, Slovenia was established In 2004. IKARUS activities are dominantly focused on fundamental and applied research, mainly in the area of kinesiology of sports, exercise physiology, and sports medicine and rehabilitation. The Institute also focuses on the studies of children's motor development which, particularly in early childhood, is extremely holistic – i.e. integrative, related to all other individual subsystems of children's psychosomatic status. Their renaissance ancestor in the field is Santorio Santorius with his work and his book *Du mediciná staticá aphorismi* (Venice 1614). Santorio was mentioned by Dally in an excerpt on page 441 (1857) wherein he presented and commented on the contribution of Santorio Santorius, who was born 1561 in Justinopolis, Istria (later Capodistria, Italy); now Koper, Slovenia (Figure 6).

Un demi siècle plus tard, Sanctorius, professeur à l'université de Padoue, reprit l'idée de Nicolas, de Cusa, et fit, sur son propre corps, des expériences suivies patiemment pendant trente années consécutives. Il fut conduit à inventer plusieurs instruments, entre autres un thermomètre, qui l'aidèrent à préciser ses observations. Chaque jour il se pesait à des heures fixées. Le poids de son corps bien connu, il évaluait aussi par des pesées scrupuleuses, la quantité de ses aliments et de ses boissons, et celle de ses excrétions; puis comparant l'une à l'autre, il crut trouver ainsi, dans leurs dissérences, la quantité du fluide qui s'était échappée par la transpiration cutanée. Il remarqua que cette quantité varie selon l'influence des six choses non-naturelles, et que la santé est dans un rapport toujours constant avec la quantité de la transpiration insensible. Son livre De medicina statica aphorismi, Venise, 1614, contient les résultats de ses expériences réduits en aphorismes.

Figure 6: The excerpt from page 441 where Sanctorius and his book Du mediciná staticá aphorismi (Venice 1614) were mentioned (Dally, 1857), Digitized by Google.

In this contribution, the short biography of Nicolas Dally is presented mainly following the sources from The **Grand Dictionnaire Universel du XIXe Siècle** (Great Universal Dictionary of the 19th Century), often called the **Larousse du Dix-Neuvième** of Piere Pierre Larousse, where it had been presented, and it was corrected with the new finding of Renson (2000). Additional authentic illustrations from available documents and resources are presented and discussed.

## DALLY NICOLAS (1795–1862)

According to Renson (2000), Dally, Nicolas was born in 1795 in Sampigny, Meuse and was a son of an engineering colonel, a soldier of the Republic. A military career characterized his youth. As many of his age and time, he was dragged into the imperial wars of the decade. As the adjutant of the 15th Dragon Regiment of the Napoleonic Armada, he was taken captive during the war in November 1812 while his army was fighting in retreat near Berezina. The **Battle of Berezina** took place November 26-29, 1812, between the French army of Napoleon, retreating after his invasion of Russia and crossing the Berezina (near Borisov Belarus), and the Russian army under Mikhail Kutuzov, Peter Wittgenstein and Admiral Pavel Chichagov. The battle ended with a victory for the Russians. The French suffered very heavy losses. That is why since that time "Bérézina" has been used in French as a synonym of disaster. Dally returned to France after two years of imprisonment in St. Petersburg. Negotiations about his returning to the military milieu, or in public life, caused him to run away in 1817. He was exiled and settled in the United Netherlands, i.e. Belgium.

A circumstance that he was a soldier's son soothed the militant passions of the young Dally. His military and war experiences left just a little place for the sympathetic feelings to the military obedience called discipline. His later work demonstrated that even then he had been studying physical and mental distortions, the consequences of the monotonous military drill.

After he settled in Brussels he was able to devote himself to scientific improvement and research, especially in the field of medical research. He founded a school according the model of the one in Paris, however, it unfortunately brought neither the expected prosperity (wealth) nor pleasure. He was listed as N. Dally, Director de l'École Centrale de Bruxeles, elaborated upon and documented by Renson (2000).

At that time he issued a paper under the title "A Description of the Steam Engine". It became an origin of the paper on "Evaporation (steam)" (Brussels, 1833) and of the work on important traffic corridors of the ancient times.

Dally wrote "Linguistics or Mechanism of Language Forming" (Dally, 1833), based upon Nodier's "History of Words and Writing".

In the year 1836 he engaged in his "Physiology" and with comprehensive work on the customs and costumes of Asian people. That work was published in 1843 by Wahler in Brussels.

After he had returned to France as a member of the Geographical Society he was engaged in geographical research (Dally, 1843), as recorded in the Bulletin de sl Societe de Geographie, for example the issue from the year 1860 which covers the period from 1844 to 1860. Nicolas Dally is on page 52 and there he is directly related to the term kinesiology "CINÉSIOLOGIE" as ilustrated in Figures 7 and 8.

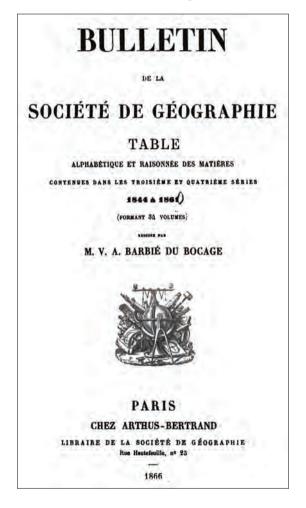


Figure 7: The title of the Bulletin, from 1866 for the period from 1844 to 1860, on page 52 Nicolas Dally is connected to the term "CINÉSIOLOGIE", Digitized by Google.

DABENZARA (Jéhu). Carte du bassin DALLY. Aperçu de méthode géograde la Méditerranée et de la mer phique. B. 3° s. II, 125. Noire, 1497. 3° s. VII, 308. DALLY (Nicolas). 4º s. IX. Présenté Dacie. Mémoire sur les Daces et l'anpour faire partie de la Sociéte, 231. cienne Dacie. B. 4° s. I, 625. Nommé membre de la Société, 234. Dahomey (le royaume de). 3es. IV, 255. - Cinesiologie. B. 4° s. XIV, 549. D'ALCIATI DE GRILHON, Résumé DALMATOFF. Description de la forêt du voyage en Arabie et en Égypte de Bélovége. B. 4° s. VII, 122. exécuté par M. | et M. Sainte-Croix Pajot, 0" s. IV, 185 DALY (architecte). 4° s. XV. Présenté pour faire partie de la 60-

## 52

#### TABLE DES MATIÈRES.

ciété, 138. Nommé membre de la Société, 207. DANA (R. H.). Voyage à Cuba. B. 4° s. XIX, 72. sur le || et le voyage du docteur Cuny. XVII, 281. Darien (le fleuve) ou Chucunaque. Il pourrait être employé pour une

Figure 8: The lower part of page 52 where the term "CINÉSIOLOGIE" is referred to by Nicolas Dally as presented in the Bulletin de sl socete de Geographie, 1844-1860, Digitazed by Google.

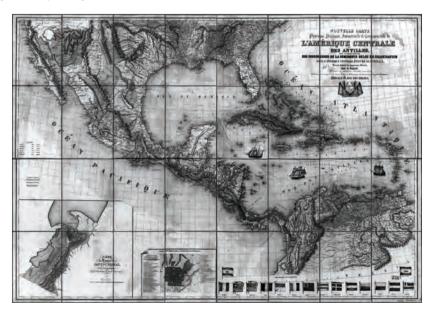


Figure 9: Map of Central America where Nicolas Dally is designated as cartographer.



Figure 10: Detail from upper right corner the Map of Central America.

The map of Central Amerika <a href="http://l.bp.blogspot.com/">http://l.bp.blogspot.com/</a> MECWm51hyRw/SsPFT-6TEcdI/AAAAAAAAADR0/0ayLbUUJGMQ/s1600-h/america+centralb.jpg

(Figures 9 and 10) uncovers his title and position in society as a "Membre De Plusieurs Sociétés Savantes", which confirms his membership recorded on page 51 in the Bulletin de sl socete de Geographie, 1845 (Figures 7 and 8).

Dally considered geographic characteristics to be important and crucially responsible for cultural differences. Ethnology and linguistics were, in his opinion, only the particular parts of human history and philosophy. He expanded his medical knowledge and horizons avoiding a dualistic and split body from mind when considering humans. Having holism and the harmony between body and mind continuously in mind, he dealt particularly with the dynamics and movement that were represented by the simple name of gymnastics. He gave a series of lectures and discussions on that subject.

One interesting aspect is in the relation and cooperation of Dally with Hypolite Triat. In the year 1846, Dally and his companion Triat established a large exercise hall in Paris, which was, however, demolished during the Francis I Street construction.

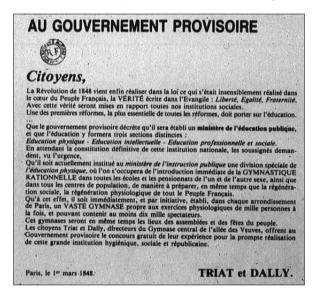
According to: <a href="http://www.psta.com/images/cat5.pdf">http://www.psta.com/images/cat5.pdf</a> the company was established "GYMNASES DE FRANCE, SOC. GEN. FRANCE: PARIS. "The company was formed in 1855 by M. Triat from Nîmes, and raised a capital of 5 million by selling shares (Figure 11.). The shareholders could, if they wished, obtain repayment of the cost of their shares by taking free gymnastics courses in the company's gymnasium. Triat knew how to profit from the new bourgeois taste for physical fitness. His courses,



Figure 11: GYMNASES DE FRANCE, SOC. GEN. FRANCE: PARIS. 5 Actions de F20, printer's proof. black, buff. Border of arabesques, and a vignette of a gymnasium with men doing exercises.

offered in Brussels and Paris, were quite expensive, the monthly fee being the amount of the monthly wage for a worker. In 1860 his Paris gym was expropriated without compensation in connection of the development of the Champs-Elysées." Gymnastics for women had been introduced and gymnasium opened in Liège in 1839.

Dally proposed a program of physical education to the Republic in 1848, and it was accepted with few changes. As a part of the campaign, Triat and Dally publically addressed the provisory government of 1848 to establish the Ministry of Education "Ministére de l'éducation Publique" with three sections: physical education "Education Physique", intellectual education "Education Intellectuelle", and professional and social education "Education Professionnelle et Sociale" (Figure 12).





# "AU GOUVERNEMENT PROVISOIRE

Citoyens,

La Révolution de 1848 vient enfin réaliser dans la loi ce qui s'était insensiblement réalise dans

le cœur du Peuple Français. la VÉRITÉ écrite dans l'Evangile : *Libert*é, *Egalit*é, *Fraternit*é.

Avec cette vérité seront mises en rapport toutes nos institutions sociales.

Une des premiéres réformes, la plus essentielle de toutes les réformes, doit porter sur l'education.

. . .

Que le gouvernement provisoire decrete qu'il sera établi un **ministére de l'éducation publique**,

et que l'éducation y formera trois sections distinctes:

Education physique - Education intellectuelle - Education professionnelle et sociale.

En attendant la constitution définitive de cette institution nationale, les soussignes deman-

dent, vu 1'urgence,

Qu'il sit actuellement institué du *ministeré de l'instruction publique* une division spéciale de

*l'education physique*, ou l'on s'occupera de l'introduction immédiate de la GYM-NASTIQUE RATIONNELLE dans toutes les écoles et les pensionnats de l'un et de l'autre sexe, ainsi que

dans tous les centres de population, de maniére à préparer, en meme temps que la régénéra –

tion sociale, la régénération physiologique de tout le Peuple Français.

Qu'à cet effet, il soit immédiatement, el par initiative, établi, dans chaque arrondissement

de Paris, un VASTE GYMNASE propre aux exercices physiologiques de mille personnes à

la fois, et pouvant contenir au moins dix mille spectateurs.

Ces gymnases seront en méme temps les lieux des assemblées et des fétes du peuple.

Les citoyens Trial et Dally, directeurs du Gymnase central de l'allée des Veuves, offrent au

Gouvernement provisoire le concours gratuit de leur expérience pour la prompte réalisation

de cette grande institution hygiénique. sociale et républicaine.

Paris, le 1er mars 1848. TRIAT et DALLY." (Renson, 2008)

Figure 12: Pamphlet of the Triat and Dally address to the 1848 Provisory Government and the citizens of the Republic (Renson, 2008).

(I am very grateful to Professor Ronald Renson who introduced me to this document and shared with me this copy after his speech at the 5<sup>th</sup> International Conference on Kinesiology in Zagreb in 2008)

Along with all of his activities, Dally remained an unselfishly caring father to his children, of whom one became a higher officer. His other child, M. Eugen Dally (1833-1887) proved and developed his father's idea about the therapeutic bases of functional moving (movements) in his doctoral thesis. Proceeding with his work in his father's spirit, he became an assistant secretary of the Anthropological Society, a principal of the Ethnology Department, and a professor at l'Ecole d'Anthroplogie.

Nicolas Dally was a typical man of progress of his era. He was a curious world-wide traveler interested in revealing the characteristics of the world he was living in. His membership and activities in the Anthropological Society implies his basic commitment: the universal, holistic attitude towards the civilization's achievements while respecting all diversities and peculiarities at the same time. The main subject of his interests were the role of movement and exercise in education, hygiene, and therapy. In his public appearances and through his publications and lectures he promoted his ideas.

At last, five years before he died, N. Dally completed his creative work by the book "CINÉSIOLOGIE OU SCIENCE DU MOUVEMENT. dans ses reports avec l'education, l'hygiéne at la thérapie, etudes historiques théoriques et pratiques", published by the Librairie Centrale des Sciences, Paris 1857. This comprehensive work is comprised of 823 pages of text and attached preface and illustrations. In this book the synthesized European and non-European scientific achievements of the age can be found. He explained his concepts underlying the great importance of the role of movement (exercise) played in the development and enhancement of human abilities, in the formation of human characteristics, and in the acquisition of knowledge and skills aimed at the benefits and preservation human health . That was the announcement of the new scientific discipline for the future that, as has been mentioned, was destined to study human movement in its complexity, integrity and anthropologic relevancy.

How and where did Dally name kinesiology as the science of human movement? At the beginning of his book (pages VIII and IX) Dally concerned himself with the name of the new science: "Where to look for that new name?" He found the solution: "The very movement,  $\kappa\iota\nu\eta\sigma\iota\zeta$  the answer. Its root,  $\kappa\iota\nu$ , expresses the general concept of natural or artificial *moving*." After the explanation Dally concluded: "We have consequently acquired the name **kinesiology** or the science of movement." It should be stressed that Dally adopted the Francophone variant "CINÉSIOLOGIE" and not the English one, "KINESIOLOGY" as we use it today outside French speaking cultures (Figure 13).

According to the Larousse's "Grand Dictionnaire Universel" (Paris, 1870) the book is Dally's capital work in "which he developed such ideas that only descendants would be able to appreciate them in their true value".

Nicolas Dally died in Paris 1862. Even so long after his passing, one is able to ask oneself: after so much effort and pain - why are Dally and his work still largely unknown?

If we consider the power and originality of Dally's mind, we can say he was one of the leading intellectuals of his era. Undoubtedly, his education was versatile, but complete and solid. Historical problems preoccupied him as well. He tried to answer these questions by detailed quotations and patient research employing a creative approach at the same time that should have decreased the uncertainty and shone a light on possible doubts. Through his original ideas, he was always able to outshine the earlier ideas of others. In short, there are few so very and thoroughly original books as "CINÉ-SIOLOGIE" is. Dally was an erudite, profound experimenter who was able to direct his thoroughness to the wholeness of the problem, which ought to be the foundation of every true philosophy. His ideas on the subject are still fresh and worth attention today.

entendaient par le mot cinèse toute espèce de mouvement dont la figure, le rhythme, la mesure étaient exactement déterminés, comme dans la pantomime, la danse et les autres exercices. Quant à l'ensemble des cinèses constituant une formule spéciale, appropriée, nous lui conserverons la dénomination d'exercice, dont la vraie signification se déduit de sa racine même, erc ou arc, signe de l'idée générale serrer, comprimer, et de ex, dehors; d'où: exercer, desserrer, dégager les organes intérieurs et les membres, ôter les obstacles qui s'opposent à la liberté des mouvements naturels. Ce terme auraît pu aussi servir de titre à notre ouvrage, mais il nous a paru plus convenable et plus rationnel de composer ce titre de l'élément même de l'exercice, c'est-à-dire du mouvement plutôt que de ses effets.

Les trois mots cinésie, cinésique, cinésitechnie rappellent, chacun, la notion de l'art ou de la science du mouvement artificiel; mais l'idée d'art et de pratique y prédomine. Pour désigner plus spécialement l'idée de la science et de la théorie des cinéses et de leurs rapports, le terme de cinésiologie nous paraît le plus propre.

Nous avons donc adopté le titre de Crassiologie ou Science du Mouvement, et sous sa dépendance viendront la Cinésie éducationnelle, la Cinésie hygiénique et la Cinésie thérapique.

Ces expressions ne sont pas nouvelles, seulement les cinésistes modernes en ont fait des composés illégitimes sous les formes de kinésilhérapie et kinésiatrie, qui au fond ne peuvent signifier que guérison et médication du mouvement; ce qui est absurde. On se sert du mot acinésie, pour désigner l'immobilité ou intervalle de repos entre le mouvement de contraction

Figure 13: The part of page IX of the Preface where term CINÉSIOLOGIE was adopted, Digitized by Google.

According to **WorldCat's** library catalog service the book "Cinésiologie; ou, Science du mouvement dans ses rapports avec l'éducation, l'hygiène et la thérapie; études historiques, théoriques et pratiques" by Nicolas Dally is traced by library copies to be present in the following countries: Belgium = 1; Netherlands = 1; United Kingdom = 2; France = 7; USA = 6 (New York = 1; Connecticut = 2; Maryland = 1; Minnesota = 1; Utah = 1); Argentina = 1.

The Figures 14, 15, and 16 presents a few of the copies reported in published papers, and conference presentations.

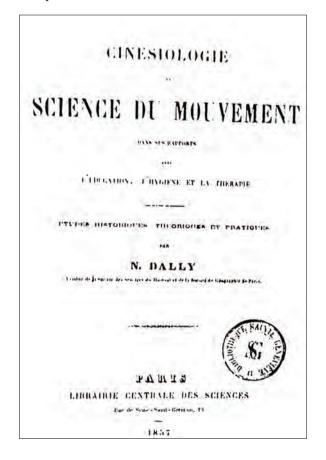


Figure 14: The title page copy of Dally's book «CINÉSIOLOGIE OU SCIENCE DU MOUVEMENT. dans ses reports avec l'education, l'hygiéne at la thérapie, etudes historiques théoriques et pratiques», published by the Librairie Centrale des Sciences, Paris 1857 a copy from Sainte-Geneviéve Library, Paris. Present in the Zagreb kinesiology circle in the 1970's (Mraković, 1971).

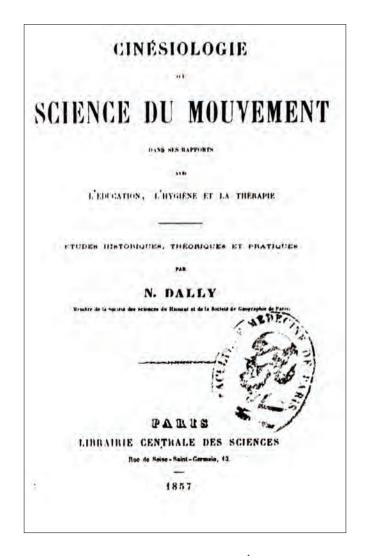


Figure 15: The title page copy of Dally's book "CINÉSIOLOGIE OU SCIENCE DU MOUVEMENT. dans ses reports avec l'education, l'hygiéne at la thérapie, etudes historiques théoriques et pratiques", published by the Librairie Centrale des Sciences, Paris 1857 a copy from library of Faculty of medicine, Paris. Present in the Zagreb kinesiology circle in the 1990's (Prot, 1997).

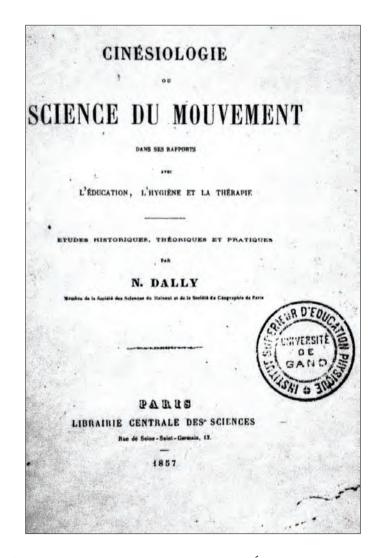


Figure 16: The title page copy of Dally's book « CINÉSIOLOGIE OU SCIENCE DU MOUVEMENT. dans ses reports avec l'education, l'hygiéne at la thérapie, etudes historiques théoriques et pratiques «, published by the Librairie Centrale des Sciences, Paris 1857 from the INSTITUT SUPEROR D'EDUCATION PHYSIQUE UNIVESITE DE GAND (Renson, 2000, 2002, 2006, 2008).

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