

How to conduct a scientific analysis of historical events

如何科学地分析历史事件/科学看历史

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Preface

前言

写在前面的话

Let us say right away that this book has two objectives. Whereas the first is common to all books that present a new idea, the second is more practical and fairly unusual.

开门见山，我们写作本书有两大目标：

* The first goal is to present a new conception of historical analysis which can claim to be scientific in the sense that it leads to testable predictions.

第一个目标是展现比较历史分析学(comparative analytical history)这一全新概念，我们之所以说它是科学的是，是因为它可以得出可验证的预测(testable predictions)。

* Needless to say, we realize that to transform history and sociology into real sciences is an ambitious objective which has to be developed step by step.

第二个目标则是希望能为将历史学和社会学转变为真正的科学尽一份绵薄之力。无须多言，实现这一雄心勃勃的转变难以一蹴而就，前路也必是道阻且长，因而更须要一步一步脚踏实地。

It took centuries to make astronomy into a real science (see below). Similarly, it will take many decades to fully develop this new conception. During this time further progress may be accomplished by a small team of participants who have faith in this project and continue to work on it on a part-time basis, just as one would pursue a hobby.

天文学(astronomy)就用了数百年才真正发展为科学，相似地，比较历史分析学也会须要数十年来真正完成其概念与体系的建立。望有志之士能够投身于这样的研究工作，若能视兹如兴趣爱好用闲暇之时进行研究或亦能有所成。

Incidentally, this is how many non-commercial computer systems and languages (e.g. Linux or ImageMagick) were developed. Some limited funding will be available to nurture this project. Astrophysicists who have an interest in history, journalists or writers who believe in the potential usefulness of this approach, retired persons who wish to join a small group of dedicated persons, please, if you wish to take part do not hesitate to contact one of the co-authors. Unless the fire keeps burning in the hearth our attempt will just fall in oblivion. 我们提出如此倡议亦是受诸多非商用的开源计算机系统与程序(例如Linux操作

系统和ImageMagick)开发过程之启示。我们可以为有兴趣推动比较历史分析学的参与者提供一些微薄的经费支持, 无论您从事何种职业(无论是天体物理学家还是记者、作家或其他行业)也无论退休与否, 只要您认为这一方法有潜在价值并对参与这样的研究有兴趣, 都可以联系我们。

A parallel with astronomy 从天文学看历史学

The main motivation for the present study can best be understood by making a parallel with astronomy and astrophysics.

写作本书的初衷可以从历史学与天文学(astronomy)及天体物理学(astrophysics)的对比中窥见。

For centuries human groups and civilizations have observed the sky and recorded the positions of the Sun, Moon, planets, comets and stars. Most often this led to sophisticated astrological models. Real science emerged on only two occasions:

人类在数千年前就已经开始观测天空并记录太阳、月亮、其它行星和恒星以及彗星的位置。大多数情况下这些记录都导向了繁复的占星学(astrological)模型; 而真正的天文科学只曾在两个地方萌芽:

- In Greece and the Hellenistic world from Eratosthenes of Cyrene (-276 to -195) to Ptolemy (100 to 170).
从古利奈人埃拉托色尼(Eratosthenes of Cyrene, 276BC-195BC)到托勒密(Ptolemy, 100-170)生活的古希腊以及希腊化世界。
- In Western Europe with Tycho Brahe (1546–1601), Johannes Kepler (1571–1630) and Isaac Newton (1643–1727), a development which led to present-day astronomy and astrophysics. In 1563 Tycho observed a conjunction of Jupiter and Saturn, and noticed that the commonly used Ptolemaian tables were inaccurate. This led him to realize that progress in astronomy required systematic, rigorous observation. The so-called “Rudolphine Tables” which are based on his accurate observations were published by Kepler in 1627, 26 years after Tycho’s death. Tycho was a nobleman and courtier who was attracted to astronomical observation purely by personal interest. He was ready to forsake a wealthy position at the Danish court to fulfill his dream.

在第谷·布拉赫(Tycho Brahe, 1546-1601)、约翰尼斯·开普勒(Johannes Kepler, 1571-1630)和艾萨克·牛顿(Isaac Newton, 1643-1727)生活的西方欧洲。1563年第谷(Tycho)观测到木星(Jupiter)和土星(Saturn)交会, 并发现当时普遍使用的托勒密天文表(Ptolemaian tables)并不准确, 这一发现使第谷意识到天文学的进步需要系统、严格的观测(详见图1)。开普勒(Kepler)在1627年(即第谷去世26年后)基于第谷精确的观测发表了后世所称的“鲁道夫星表”(Rudolphine Tables), 他们三人共同的努力和研究成果宣告了现代天文学和天体物理学的开端。第谷不仅身为贵族, 而且位列朝臣, 他是纯粹出于个人兴趣才被吸引到天文观测中来, 他也曾准备放弃丹麦宫廷俸禄优厚的官职来实现他的梦想。

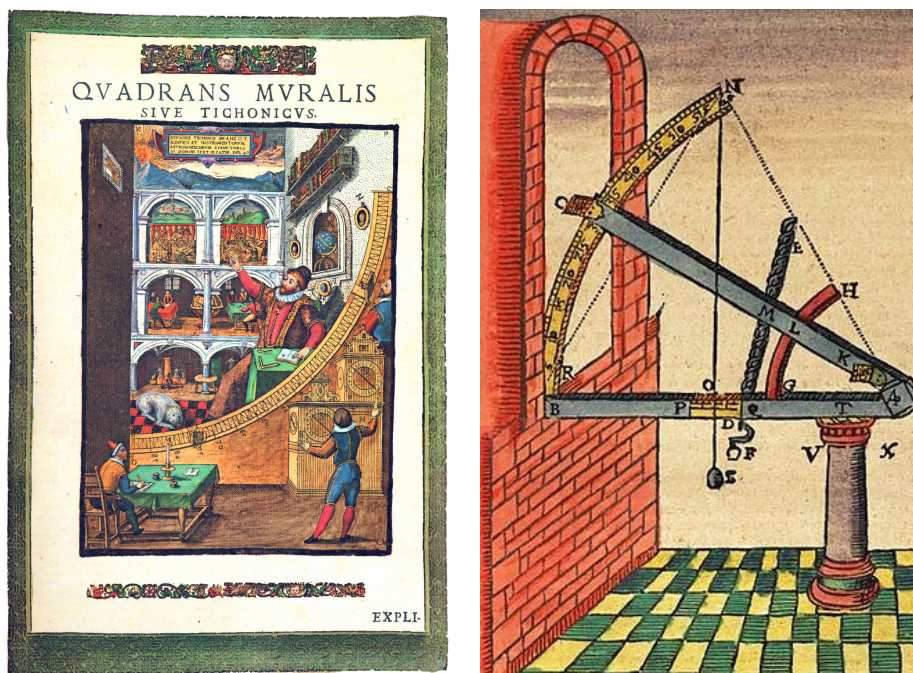


Figure 1: 第谷·布拉赫(Tycho Brahe)发明的两种测量仪器。左边是位于乌兰尼堡(Uraniborg)天文台的墙式象限仪(wall quadrant)，该天文台位于瑞典斯堪尼亚省南部和丹麦之间的汶岛(island of Hven/Ven)。右边则是第谷的超大六分仪。资料来源于维基百科(法文)词条《第谷·布拉赫(Tycho Brahe)》

It should be noted that, apart from their work in astronomy Ptolemy, Tycho and even Kepler authored books in astrology. At the beginning of each year Tycho had to present an Almanac to the king of Denmark predicting the influence of the stars on political and economic prospects. This anthropomorphic attitude was quite understandable for astrology was thought to be much more “useful” than astronomy. As a matter of fact, many civilizations, e.g. Chinese, Indian, Maya, Western, developed elaborate systems for predicting terrestrial events from celestial observations.

值得一提的是，托勒密(Ptolemy)、第谷(Tycho)乃至开普勒(Kepler)除了在天文学(astronomy)上有重要贡献，他们也都曾在占星术(astrology)方面著书立说。在每一年的年初，第谷都要向丹麦国王呈交一份预测星象对政治和经济前景的影响的历书(Almanac)。鉴于占星学被认为比天文学“有用”得多，这种将神人格化的(anthropomorphic)态度也就非常容易理解。事实上，诸如中华文明、印度文明、玛雅文明以及西方文明都为通过对观察天象来预测地上事物的变化而发展出了繁复的体系。

How does the scientific analysis of historical events proposed in this book parallel the emergence of astronomy and its separation from astrology? Following the invention of writing, for millennia human societies have recorded historical events. To recount facts rather than the thoughts and beliefs of the author was

a first challenge. It seems that with the biographies of their emperors Chinese scholars were among the first to produce factual accounts [references and more details are needed]. In the west, Herodotus (-484 to -425) and Thucydides (-460 to -400) were two early historians. In contrast, when one reads the story of the Great Fire of London in 1666 as told by contemporary English writers one learns more about the Romans, the Bible and the justice of God than about the fire itself. Because there can be no science of individual events (they can only be described) a crucial step on the way to scientific analysis is to build sets of similar events.

本书所提出的对历史事件的科学分析是如何可以与天文学的产生及其与占星学的分离所相比拟的呢？随着文字的发明，人类记录下了几千年来历史事件。但重述事实而非表达作者的想法或信仰就成了对于史家的第一个挑战。中国的史官司通过对各类历史事件和人物的记述跻身于首批进行事实性记述的学者之列¹；希罗多德(Herodotus, 484BC-425BC)和修昔底德(Thucydides, 460BC-400BC)则是西方的代表。相反地，当人们去阅读当代英语作家所写的关于1666年伦敦大火的故事时，读到的更多的是关于罗马人、圣经和神明的公正，而非大火这一事件本身。由于从特定事件无所得出“科学”(个例只能被描述)，要实现科学分析至关重要的一步就是找出相似事件(similar events)的集合。

The idea is simple. What conclusion can an astronomer of the 16th century draw by comparing the orbits of Venus and of comets? Basically none, because these objects are too different and the data for the comets too imprecise to be compared in an effective way. However, if the same astronomer compares the orbits of Venus and Mars, he may well be led to the discovery of what we now know as “Kepler’s laws”. It works the same way in the social sciences. In order to be able to draw any conclusion, one must compare events which are sharply defined and sufficiently similar.

这个想法很容易理解，一个16世纪的天文学家通过对比相似性极低的金星(Venus)和彗星的轨道能够得出什么结论呢？基本上什么都得不到，因为客体之间太过不同，并且彗星的数据过于不精确也无法进行有效的比较。但是如果这个天文学家去比较金星(Venus)和火星(Mars)的轨道，他就有可能发现我们今天所知的“开普勒定律”(Kepler’s laws)。对于社会科学也是如此，要想得出有效的结论，我们必须比较被严格定义且具有充分相似性的事件。

This is the idea which underpins the whole book. That is also why we hope that astronomers and astrophysicists may view it with some interest. Anal-

¹中国最早的史书目前公认的是《尚书》，它的基本内容是古代帝王的文告和君臣谈话记录，依体例又分为典、谟、训、诰、誓、命。编年体史书《左传》则主要记录了周王室的衰微、诸侯争霸的历史，对各类礼仪规范、典章制度、社会风俗、民族关系、道德观念、天文地理、历法时令、古代文献、神话传说、歌谣言语均有记述和评论。虽然西方的史家也多为宫廷史官，但东西方在历史著述方面仍略有差异，有些西方的事实性历史著作是由亲历者完成，两个典型的例子便分别是修昔底德的《伯罗奔尼撒战争史》(成书于公元前430年)和凯撒大帝的《高卢战争史》(成书于约公元前50年)。修昔底德被后世公认为作家和历史学家，但他也是参与伯罗奔尼撒战争的一位将军；而凯撒大帝则是当年高卢(今法国)战争的最高指挥官。这类史书所涵盖的时间段通常只有数年(一般少于20年)，但一如古往今来所有由胜利者所书写的史书一般，许多胜利者的血腥历史都被掩盖或美化，自然也无法做到全然客观(即便是现今美国国防部所书写的美国军事史亦是如此，他们所写的《Relations between Allied troops and the population of Japan》在许多事实上都有失偏颇而且倾向于美国)。只是在中国古代，据我们所知未曾有过像修昔底德和凯撒大帝这样的历史学家。

ysis and prediction based on the categorization methodology. The method described above which is based on laws (like Kepler's laws) works well when the phenomenon can be described through a small number of parameters. As a particularly simple example, for a pendulum one needs only to measure its length to be able to predict its period. However, in other fields than physics the variability and number of parameters of the phenomena is often too high to make predictions based on laws. In such cases the law-based method must be enlarged into what we will call a categorization (or ascription) method. Let us illustrate this generalization through three examples.

这一点也是支撑全书的核心观念，同时也是我们期待天文学家和天体物理学家可能有兴趣阅读的原因。分析和预测须要基于分类方法(categorization methodology)，当特定现象能够通过为数不多的几个参数进行描述的时候，上文提到的基于定律(如开普勒定律)的方法往往就很有效。举一个非常简单的例子，对于预测钟摆的舞动周期，人们只要测量它的长度即可。但是对于物理学之外的现象，其参数的可变性(variability)和数量往往远远超出能够用定律进行预测的要求。对于这类更为复杂的现象，基于定律的方法必须被扩展为我们所称的分类法(categorization)或归因法(ascription)才能更加有效。让我们用三个例子来解释这一概念。

- The evolution of a star depends upon several parameters, for instance its mass, age and color. Based on these parameters astrophysicists have defined standardized types. For each type its timeline is well defined. Therefore, when one wishes to predict the evolution of a new star one needs only to determine its type.
恒星的演变过程取决于数个参数，例如恒星的质量、年龄以及颜色。天体物理学家基于这些参数定义了标准化的类型，对于每个类型的演化时间轴定义地都非常明确。因此当人们想要预测一颗新恒星的变化时他们所需要做的就是确定这颗恒星的类型。
- The same method is used in medicine. Based on a number of observed symptoms, a doctor will decide that a case is influenza, tuberculosis or lung cancer. Thus, a medical diagnosis is just a special case of categorization.
同样的方法也应用于医药学领域。医生会基于一系列已观察到的症状来确定一个病例是流感(influenza)、抑或结核(tuberculosis)还是肺癌。因此医学诊断也可以说是分类法的一个特殊案例。
- Categorization is also used in physics. Suppose one wants to predict how air flows around an airfoil. Getting such a prediction from first principles (that is to say by solving the Navier-Stokes equations of hydrodynamics) would be a very difficult problem. On the contrary, through categorization the problem can be solved rather easily. According to their shape, airfoils are ascribed to different families and in addition in each family there is a sub-classification based on an index number which describes a parameter, for instance the curvature. As examples of such families one can mention the following: NACA 0012, Eppler E 193, Wortman FX 75-141. So, in order to make a prediction for a new airfoil one needs only to determine to which family it belongs and what is its index. Of course, for this

method to work, all standard airfoils must have been tested in wind tunnel experiments. As there are hundreds of different shapes this represents an extensive research program.

分类法同样也被应用于物理学中。假定想要预测螺旋桨周围的空气如何流动，如果通过基本原理(即求解流体力学(hydrodynamics)中的纳维-斯托克斯方程式(Navier-Stokes equations))来做出判断将会非常复杂；但相反，采用分类法却可以很轻松地解决这个问题：螺旋桨可以根据其形状分成不同类别，而在每一大类中又可以基于一个描述某参数的索引号(index number)进一步划分为一些子类(sub-classification)，例如曲率(curvature)就是一个子分类参数。举例来说我们会看到以下的类别：NACA 0012、Eppler E 193、Wortman FX 75-141。所以若想对新型螺旋桨的空气动力学进行预测，只需要确定它属于哪一个大类以及它的索引号即可。当然，为了保证这一方法的有效性，所有类型的标准螺旋桨都必须经过风洞(wind tunnel)试验；由于螺旋桨会有上百种不同的形状，所以得出这样的分类须要进行大量的研究工作。

For historical events the variability is even higher than for stars, diseases or airfoils. In addition the classification work has hardly started. That is why at present time the categorization method can be used only in a fairly rudimentary way. For further progress the key is to identify and define many families of similar events. In medicine the classification of diseases took centuries. Currently, the “International Classification of Diseases” (ICD-10) comprises thousands of classes. This suggests that one needs to be patient but also that this classification work must be pushed forward as vigorously as possible.

对于历史事件而言，其可变性相比恒星、疾病或者螺旋桨都高很多；而分类工作几乎仍处于起步阶段，这也是为什么如今的分类法只能在相当基础的层面运用。要取得长远的发展，关键在于确定和定义大量相似事件的集合²。在医疗领域，疾病分类工作用了数个世纪才完成，现今通用的《国际疾病分类(第十版)》(International Classification of Diseases, ICD-10)已经涵盖了成千上万个类别。这一先例表明我们必须保持耐心，但历史领域分类工作的推进也已刻不容缓。

A tortuous road 路漫漫其修远兮

The road which led to the publication of the present book in Chinese was fairly long and tortuous. A first draft was written in French in 1993. An English version was published by “Harvard University Press” in 2002, and finally this version destined to the Chinese public is a completely new book largely based

²For historical events a parallel would be to build a catalogue of peasant uprisings against taxes, another for the riots due to scarcity of food, and so on. Within each of these families one can of course distinguish still other parameters such as the number of people involved, whether they have weapons or not, and so on.

举个粗略的例来说，若想用分类法研究农民起义，可以先根据其起因进行一个大类的划分，例如有的是因赋税过高、而有的是因粮食短缺；在这些大类之下，我们又可根据起义人数、是否拥有武器来进行细分。

on examples taken from Chinese history. What it has in common with the two previous publications is the methodology and the main concepts.

本书在中国的出版之路可谓漫长而曲折。本书于1993年完成法语初稿，2002年由哈佛大学出版社出版英文译本。而现在中国大众看到的这一版则是一部全新的作品，其内容大量取材于中国历史事例，在方法论和主要的概念上则与前两部作品保持了一致。

The story which led from the French draft to the present book may be of more than anecdotal interest for it illustrates the fact that it is not easy to publish something new, and, once it has been published, to spread the message to other scholars.

从法文初稿到如今的作品，其中的故事似乎颇有更深的意味，因为它阐明了这样一个事实：即要出版一些全新的研究并非易事；而对于已经出版的书籍而言，要把全新的理念传达给他人亦非易事。

Although there are many publishers in western countries it is not easy to break the barriers of fashion and one-track thinking. Actually, finding a publisher turned out to be easier in China than in France.

尽管在西方有很多出版商，但要打破学科研究的风尚樊篱和狭隘的思考模式仍然不易。事实也证明在中国找到一个愿意出版新式研究的出版商要比在法国容易得多。

Back in 1993 the French draft was proposed to several publishers. Invariably it was brushed aside, most often on the ground that it is a topic “which does not square with our publication program”. How can a new approach conform to a pre-existing program? In the hope that British or American publishers would be more open, the French draft was translated into English with the help of co-author Tony Syme who was at that time teaching at Oxford University. However, when the English draft was proposed to US and British publishers the same answers started to pour in. Eventually, in the fall of 1998, in an attempt to win support from distinguished American colleagues, one of the co-authors (BMR) decided to visit the United States.

回想1993年法文书稿被推荐给几家出版社的时候，结果始终是被弃置一旁，多数时候是被直接拒绝，因为这本书的主题“不符合我们的出版计划”。可一种新方法、新主张怎么可能符合既存计划呢？抱着英美出版商或许更加开放的希望，我在当时在牛津大学执教的合著者托尼·赛姆(Tony Syme)的帮助下将法文书稿转译成了英文。然而当英文稿被推荐给英美的出版商时如潮般涌来的仍是相同的答复；最终在1998年底，本书的合著者之一Bertrand M. Roehner决定访问美国以期从美国的知名学者当中争取支持。

Thanks to an invitation from Prof. Samuel Williamson he could spend two months at Harvard and from there he also visited several other universities in New York State, Arizona, California, Illinois Michigan and West Virginia. By chance a miracle happened. After being invited to give a talk at the “Harvard Department of Sociology” (on 29 September 1998) by Prof. Stanley Lieberson he had the opportunity to have lunch with Michael Aronson of “Harvard University Press”. This started a sequence of events which would lead four years later to the publication of “Pattern and Repertoire in History”. In this outcome one should also mention the support of Prof. Charles Tilly who was one of the pre-publication reviewers and also suggested the book’s title.

在此要感谢来自萨缪尔·威廉姆森教授(Samuel Williamson)邀请前往哈佛大学访问两个月，同期也访问了纽约州(New York State)、亚利桑那州(Arizona)、加利福尼亚州(California)、伊利诺伊州(Illinois)、密歇根州(Michigan)和西弗吉尼亚州(West Virginia)的其它数所高校。然后奇迹发生了，在应斯坦利·利伯森教授(Stanley Lieberman)之邀在哈佛社会学系(Harvard Department of Sociology)作报告之后(1998年9月29日)，Bertrand恰好有机会与哈佛大学出版社的米歇尔·阿隆索(Michael Aronson)共进午餐，而这开启了随后的一系列事件，促成了四年后《历史中的模式与行为策略集》(Pattern and Repertoire in History)一书的出版。我们还要特别感谢已故的查尔斯·蒂利教授(Charles Tilly)的支持，他是该书出版前的评论家(pre-publication reviewers)之一，他不但建议了这一书名并且对书中内容提出了中肯而宝贵的建议。

However, after the publication of the book, between 2002 and 2017, all attempts to interest historians in this new methodology misfired. In the following lines we try to understand why.

然而这本书于2002年出版之后，所有想要吸引历史学家关注这一新方法的尝试均以失败告终。接下来的部分我们将试图分析并理解其中的原因。

The need of well targeted comparisons 有效对比之缘起

With the benefit of hindsight the reason appears fairly clearly. The approach advocated in the book relies on making appropriate comparisons. The comparison should refer to a specific feature and in order for the comparison to make sense the events must be fairly similar, ideally they should be identical except for this specific feature. This methodology was introduced by sociologist Emile Durkheim (1858–1917) and it is described in the book shown below.

随着对历史事件的事后认识不断深化，进行精准且有效的对比的理由也变得相当清晰。本书所提出的方法有赖于进行恰当有效比较：既然是进行对比，那必然得是针对某一具体特征或属性，而且为了能使对比合乎情理，所比较的事件必须尽量相近(最理想的状况便是其他特征都相似，而且只有想要研究的特征上表现不同)。诚然这在物理实验中更易实现，但在历史分析中我们仍可尽量去找更多的相似事件来进行分析。这一比较方法论最早是由社会学家(sociologist)艾米尔·杜尔凯姆(Emile Durkheim)(1858-1917)引入(本书后文也有对此进一步介绍)。

However, very few historians have been willing to use the comparative approach advocated by Durkheim. One exception is Marc Bloch (1886–1944). In 1924 he published a study which was later translated into English under the title “The royal touch”. It provides an excellent example of what we mean by “comparison of events which are sharply defined and sufficiently similar”. The royal touch consists in the fact that in France and England the king was (allegedly) able to heal some diseases just by touching sick people. This is certainly a well defined phenomenon. Unfortunately, this kind of comparative research remained fairly unique and isolated. In a somewhat loose form comparative history remained popular in France during the 1950s and 1960s mainly thanks

to the “Ecole des Annales” which was founded by Marc Bloch. Then, in the 1970s, both in Europe and in the United States, historical research turned back to the study of single cases: one country, one time interval, one phenomenon. For instance: “A study of unemployment in Germany, 1925-1935”.

然而少有历史学家愿意使用杜尔凯姆提出的比较研究方法，当然著名历史学家马克·布洛克(Marc Bloch, 1886-1944)是个例外。此人于1924年发表了一项主题为“皇室之触”(The royal touch)的研究成果，后来该研究被翻译为英文。该研究为我们所指的“严格定义且充分相似的事件比较”提供了绝佳的例证。在法国和英国关于“皇室之触”有这样的说法—即国王可以仅靠触摸病人就治好他所患的疾病。这当然是一个准确定义的现象，不幸的是，这种比较研究仍然相当特殊而孤立。尽管形式尚不够稳定，但比较历史学(comparative history)能在20世纪50年代到60年代的法国盛行，主要归功于马克·布洛克建立的“年鉴学派”(Ecole des Annales)。但到了20世纪70年代，无论欧洲抑或美国的历史研究又回到了针对某一国家、某一时间段、某一种现象的个例研究上：例如《对1925-1935年德国失业状况的研究》。

On such a topic one can tell a story but one cannot do any science; whether or not the study comprises an econometric model, it will remain only a description. Science needs testable predictions and the later require several instances of a given effect.

对于这样的话题，人们尽可以讲出有趣的故事，但却无法从中得出任何科学理论；这样的研究无论是否包含经济学模型，都仍然只是停留在了描述层面；而科学需要可验证的预测，要做到这一点，就势必须要基于某一效应所对应的多个事例组成的集合。

The method of experimental physics and observational astrophysics

实验物理学与观测性的天体物理学的方法论

The methodology of experimental physics is based on comparative analysis. For instance, as a first step one measures the period of a pendulum. As a second step one repeats the observation to check if the phenomenon is reproducible. Clearly this is unnecessary for a pendulum but may be important for a system that is more chaotic.

实验物理学的方法论基于比较分析。举例来讲，一个人第一步要测量摆的周期，第二步则要重复观察，以检验这一现象是否能够重现。对于摆这种简单现象这样进行分析显然是不必要的，但对于更加复杂、无序的系统却可能非常重要。

Then, one changes one parameter, say the length of the pendulum, to see how the period will be affected. These are exactly the steps that we wish to implement in studying social phenomena and historical events.

接下来我们可以改变一个参数(比如摆的长度)，来观察其周期受到怎样的影响。这也正是我们希望在研究社会现象和历史事件所采取的研究步骤。

Let us give an example. As a first step one observes the suicide rate of unmarried young adults in France in the year 2000. Secondly, by comparing the

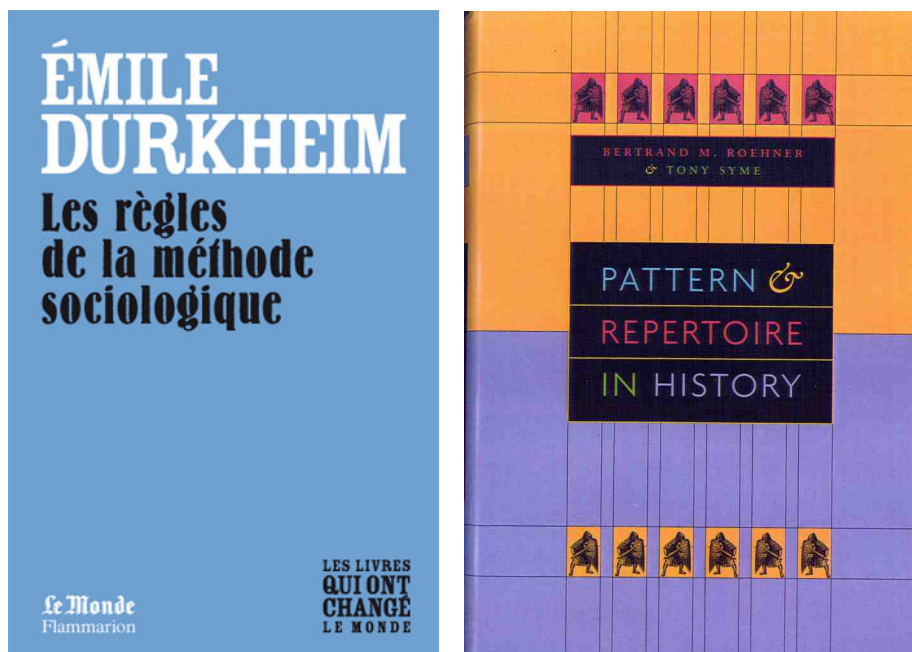


Figure 2: 两部作品，一个主题。杜尔凯姆的著作于1894年出版。右边则是2002年出版的《历史中的模式与行为策略集(Pattern and Repertoire in History)》。杜尔凯姆作品的英文译名为“Rules of sociological method”(社会学方法规范)。尽管相隔一个多世纪，两本书仍然有着同样的目的—那就是将社会学和历史学转变为可测试的科学。杜尔凯姆的书及其后续的关于自杀现象的研究(Durkheim 1897)阐释了如何通过类比“自然实验”(natural experiments)将实验物理学的方法论(methodology)应用于无法进行直接试验的领域。在《历史中的模式与行为策略集》一书中，作者将杜尔凯姆的方法应用在了历史事件的研究上。(来源：两本书均有在线免费版本)

rates in 2000 with those in 1999 and 2001 one can check whether the phenomenon is reproducible.

我们还是举例来说明。第一步，我们观察2000年法国未婚成年人的自杀率；第二步，将2000年的比率与1999年和2001年的加以比较，观察这一现象是否能够重现。

Indeed, in successive years the rates are the same within a margin of $\pm 5\%$. Then, one changes a parameter, say the number of family links. This leads to the observation that married persons (without children) have suicide rates which are 2 or 3 times lower than those of unmarried persons of same age. Moreover, married persons with young children have suicide rates which are even lower than those of childless married couples. In other words, the suicide rate decreases with the number of family links. This is true not only in France but in fact in all countries, including China, for which reliable data are available (Richmond et al. 2016).

这一比率在随后的几年中确实保持平稳，误差在 $\pm 5\%$ 以内；接下来我们不妨改变家庭关系数量这一参数，就会观察到没有孩子的已婚人士的自杀率是同年龄段未婚人士的 $1/2$ 到 $1/3$ ；而在有孩子的家庭中，自杀的发生率比在没有孩子的家庭中更低。换言之，自杀率随着家庭关系数量的增加而降低。事实上，这一结论不仅适用于法国，对包括中国在内的所有国家都是如此，且这一结论有可靠的数据支持(Richmond et al. 2016)³。

Admittedly, this was an example in sociology rather than in history, although in our opinion the two fields should be seen in a unified way. A more historical illustration is provided by separatist disturbances. The analysis of a broad set of cases conducted in Roehner (1997, 2002) shows that the level of separatist violence in a region *a* of a country *A* is mainly determined by two parameters: (i) the degree of isolation of *a* with respect to *A*. For instance, usually is in a remote corner of *A*. (ii) the degree of autonomy enjoyed by *a* before it became part of *A* and how well this situation was accepted in past centuries. The first parameter is geographical whereas the second is historical. In other words, one is here in the same situation as in the case of the pendulum. In Roehner (1997) about 40 cases were analyzed in terms of these parameters. Almost all cases were from the 20th century. By including cases belonging to more distant past centuries (provided one can find data sources) it should be possible to double or triple the number of cases. This is also what astrophysicists are doing when a more powerful telescope allows them to watch more distant stars; as one knows, farther away means that the stars will be seen as they were earlier in the past. 不可否认，上面所提及的案例仍是一个社会学而非历史学的例子，不过在我们看来这两个领域可以采用统一的标准和方法来进行研究。不过分离主义者的骚乱(separatist disturbances)恰好提供了一个与历史相关性更强的例证，勒纳(Roehner)通过对一系列广泛的案例进行分析(Roehner 1997, 2002)，得出了这样的结论：A国*a*地区分离主义者的暴力活动程度主要取决于两个变量：(1) *a*地区相对于A国的孤立程度，举例来说，*a*地区通常会与邻国接壤的边疆偏僻地区。(2) *a*地区在成为A国领土之前的自治程度及其自治状态在过去几个世纪内取得的接受度。第一个变量是地理因素，但第二个则是历史因素。换言之，研究这一问题的方法论和研究钟摆问题是一样的。勒纳在1997年发表的研究中分析了约40个相关案例，几乎所有的被研究案例都来自20世纪(Roehner 1997)。假如能够找到数据资料，那么通过加入几个世纪前那些更为久远的案例，就可能使那项研究的案例数达到现有的两倍或三倍。这也正是当更强大的望远镜让天体物理学家得以观测更遥远的星体时天体物理学家们在做的事情。要知道，更遥远的距离也正意味着我们看到的是星体更早期的状态。

For the two phenomena that we have just mentioned the variability was small and the sample of documented events was large. These are favorable circumstances which may be fairly rare. In a general way data availability will be the main limiting factor.

我们刚刚提到的都是可变性比较小，而且有史可查的事件样本又很多的情况。这是最好但可能也是相当少见的情形，一般来说数据的获取都是主要的限制因素。

³本书中的参考文献均以“作者姓氏年份”这样的格式出现，在书后的参考文献列表中可根据作者姓氏的字母序索引找到相应的文献。

However, such practical obstacles do not call into question the methodology itself. Even when less cases are available, the categorization method provides a good way to introduce order and patterns where there had been none. Then, in the course of time this classification can be made sharper. Similarly, ever since its introduction at the beginning of the 20th century the “International Classification of Diseases” has undergone a great development.

但是这种实践层面的障碍不构成对方法论本身的质疑。即使在没有那么多案例的时候，分类法也仍然是为先前一无所有的领域提供规则与模式的一种好方法。经过一段时间，分类可以不断被细化，正如《国际疾病分类》自20世纪初建立以来至今也经历了显著的发展。

Manifesto for viewing the world in comparative perspective 比较视角看世界之宣言

The following case suggests that in human affairs making comparisons does not come naturally. It is easier to remain focused on the little world in which one lives than to look outside. However, this may be less true in China. For instance, in Chinese academia there is a time-honored tradition of taking inspiration from western countries. Although interrupted from 1949 to 1975, this tradition was quickly resumed in subsequent years and it remains well alive up to present time (2017) even though, in a number of technological fields, China was able to take the lead. 接下来的例子表明在人类事务中进行比较并不是自然而来的本能。将眼光停留于我们所处的小世界相比于放眼圈外要容易得多，但这一结论对于中国则不那么适用。举个例子，中国的学校自晚清以来有着向其它国家学习的历史传统。尽管在1949-1975年间遭到中断，但这一传统还是在随后迅速恢复并蓬勃发展直至今日，即便中国目前在一些技术领域已经取得领先地位也仍是如此。

How to manage big cities 如何管理大城市

All large cities are confronted to similar problems: cars versus public transportation, pollution, homeless people sleeping in the streets, selective waste sorting, and many others. Some cities are able to solve these problems fairly well whereas others are overwhelmed by them.

所有大城市都面对同样的问题：私家车与公共交通的矛盾、环境污染、无家可归的街头流浪者、垃圾分类处理，不一而足。一部分城市能够相当出色地解决这些问题，而另一部分却被问题压垮了。

However, for a city which wishes to learn how to do the solution seems easy. It should send a delegation to study the management of successful cities and then implement these methods in their own city. To our best knowledge this is not often done. This suggests that to adopt a comparative standpoint is not something natural.

然而对于一个想要学会如何解决麻烦的城市，派一个代表团去与自己情形相似且成功城市学习其管理方法(同时也应该吸取其他城市的失败教训)，并将这些方法应用于自己的城市也不失为一个不错的方法。但事实上使用此法的城市并不多，这也表明接受比较的观念也并不是一个自然的过程。

Actually, a close examination of the solutions that worked elsewhere should be mandatory. At least such a comparative study would give a clear understanding of the means that do work even if putting them into effect may, for a variety of reasons, not be easy.

当然对于在其它地方适用的措施进行仔细检验是完全必要的，至少这样一个比较研究可以让人清楚认识到这些措施的运作生效是基于一系列的原因，而不是随意为之的产物，哪怕某一措施看似确实有效也一样如此。通过对比我们往往更能发现事物发展的内在科学规律，也只要如此才能应用他城解决方案时不致东施效颦。

值得一提的是，现今随着科技的发展，人类活动通过各类设备(例如手机、社交媒体、手环一类的运动设备、信用卡、公交卡等等)产生了海量的数据，这些大数据为我们提供了有关城市更多的信息，得以让我们能够更量化地描述我们的城市、更加准确地把握城市的脉搏、挖掘城市中纷繁复杂现象背后的机理。类如我们通过大数据分析，就可以挖掘出城市中人类移动的模式，而基于这些我们可以进一步去定量地研究城市的交通效率(Dong 2016)、城市中人类活动对于空气质量的影响(Xu 2017)、流行病的传播预测(Li 2017)等等。大数据让我们得以拥有更多的观测实例、使得我们所关心的相似事件的集合更加丰富，而这正是我们进行比较研究的重要基础。

Banking on the time-honored Chinese tradition of careful observation

期寄于中国历史悠久的仔细观察传统

Our experience of the past 25 years convinced us that the approach proposed in this book will appeal foremost to persons who take pleasure in making detailed and well focused observations. This is more a question of turn of mind than one of professional education.

我们过去数十年的经验告诉我们，本书所提出的方法最适合乐于集中精力并观察细节的人。这更多的是一种思维转变而非专业训练的问题。

The effective cures developed by traditional Chinese medicine show that there is in China a custom of skillful and careful observation. Why do we put an emphasis on observation? For the obvious reason that without Brahe's careful observations there would have been no Kepler's laws and therefore no break-through by Newton. With respect to traditional medicine one can observe that the first scientific Nobel prize attributed to research done in China relied partly on the traditional descriptions of the health effects of various compounds. Conducted in the early 1970s, this research relied on a symbiosis of modern experimental observation and extensive knowledge accumulated by traditional medicine.

传统中医药发展出的有效治疗方法表明中国有着巧妙而细心的观察传统。我们

为什么如此强调观察呢？很明显的一个原因是如果没有第谷·布拉赫的观测，就断不会有开普勒定律，更惶论牛顿的理论突破。在中国完成的首次荣获诺贝尔科学奖的研究⁴正是部分依赖于中国古代对多种化合物的作用及治疗效果的详尽描述。在20世纪70年代早期进行的这一项目依赖的正是现代实验观测与传统医学药(traditional medicine)积累的大量知识的结合(symbiosis)。

It is true that traditional medicine is still promoted and practiced nowadays but in academic circles the mood is more to follow the trends set by highly regarded American universities and western journals. It might seem that this is in line with the spirit of the “New Culture Movement” of the 1910s and 1920s. However, this movement was fairly selective in what it wanted to borrow from abroad. From introducing “Vernacular Written Chinese” (also called “Modern Written Chinese”) in replacement of “Classical Chinese” which had become outdated and too rigid, to greater emphasis on science, to women’s liberation the efforts and achievements of this movement are impressive; at the same time its association with the “May 4, 1919” and “May 30, 1925” movements which had an anti-imperialist perspective made it suspicious of the real intentions of western countries toward China. The “New Culture Movement” is illustrated in the figure below by two persons who took an active part in it while in their 20s.

诚然，传统医药如今还在不断得到推广和运用，但在学术圈更多的还是追逐备受仰慕的美国大学和西方期刊所引导的趋势，这似乎与20世纪20年代前后的新文化运动精神一致，这一运动并非完全照抄国外，对于究竟从外国借鉴哪些事物表现地十分审慎。从提倡白话文(又称“现代文”)以取代过时僵化的八股文，到强调科学、推动妇女解放，这一运动取得了令人印象深刻的成就。只是新文化运动与1919年“五四运动”和1925年“五卅运动”等反帝国主义运动杂糅在一起，这也使国人对于新文化运动的动机缺乏充分了解，大多情况都是其反帝国主义的动机被过分强调，反而较少提及向西方学习的部分。但当年新文化运动也确实是杂糅着向西方学习、但同时又反对西方这样两种看似互相矛盾的情感⁵；下图(图3)中的两人就曾在20岁左右积极参与新文化运动并对新文化运动进行过深入解读。

Coming back to our question, developing analytical history will require the careful and rigorous handling of a vast amount of historical data and it seems that in China there is a time-honored tradition for doing that. Like “Sleeping beauty” it may just be waiting for a revival.

回到我们的主题上来，发展比较历史分析学⁶需要仔细、严密地处理海量的历

⁴The physicists Tsung Dao Lee and Chen Ning Franklin Yang were still Chinese citizens when they were awarded the Nobel prize in 1957, but although they had been educated in China their research work (including their doctoral research) had been done in the US. 于1957年获诺贝尔奖的物理学家李政道和杨振宁当时确实仍是中国公民。二人虽然也在中国接受过教育，但其研究工作(包括其博士阶段的研究)均在美国完成。

⁵See the anti-foreign riots of the 1920s and the boycott of British goods which put Hong Kong’s trade almost to a standstill.

二十世纪20年代发生在香港的反外暴动(anti-foreign riots)和对英货的抑制几乎让香港的贸易完全停摆。其实今日的中外关系(尤其是中美关系)也仍是处于这样一种矛盾对立统一的状态当中。

⁶In this book, we introduce a methodology which allows a scientific analysis of historical events. It consists in examining “small events” rather than “big events” and in this sense it is analytical.

我们在本书中提出了可以科学分析历史事件的方法论，它着重于分析“小事件”而非“大事件”，从

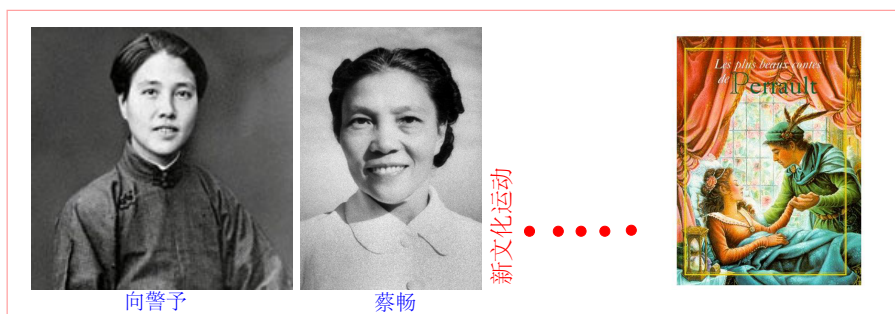


Figure 3: 为了“新文化运动”的复兴。左：向警予，女，1895年生人，1928年5月1日被国民党处决。中：蔡畅(1900-1990)，女，为新民学会(New People's Study Society)早期成员，该学会由毛泽东于1918年4月在湖南建立。学会本身属于新文化运动的重要部分，促进了部分经审慎选择后的西方文化的传入。两人的经历都表明增加财富这一西方的关键目标完全不在其考虑之列，相反，她们更多地投身于服务人民的事业之中。新文化运动的审慎选择性学习精神是否会如本图右侧《睡美人》的封面所示一般经历重生呢？(材料来源于网络)

史数据，而在中国这一传统由来已久，正如睡美人一般，我们需要做的仅仅是唤醒它。

That is why we are convinced that, in contrast with western countries but faithful to its own tradition, China will provide a fertile soil where the present approach will thrive and bear fruits.

这就是为什么我们相信中国与西方国家不同，可以基于其自身的传统为新的研究方法提供肥沃的土壤，使之蓬勃生长并结出甜美的果实。

The present book and beyond 关于本书及其它

In this book we will use the comparative methodology in a fairly loose way in the sense that we will not try to set up exhaustive lists of similar events. Often we will limit ourselves to only two or three cases; nevertheless this will give the

这个角度来说它是分析的(analytical)。In addition we will study not single events but rather families of similar events and in this sense the method is comparative. That is why we often use the expressions “analytical history” or “comparative history”. However it is clear that these categories remain too broad. The expression “comparative analytical history” would be somewhat more precise but at the same time it is too long and cumbersome to use.

另外由于我们研究的并非单一的事件，而是重多相似事件组成的集合，所以从这个角度来讲这一方法又是比较的(comparative)。当然我们应该承认分析、比较这两个概念仍然太过宽泛，我们所提出的方法或许叫作“比较历史分析”会更准确一些，但由于这个名字略长而粗笨，所以我们在书中会根据不同的侧重将这一方法(比较历史分析)在一些情形下称作“比较历史(comparative history)”，在另一些情况下或许又会唤作“分析历史(analytical history)”；但这两个概念本质上对应的都是“比较历史分析(comparative analytical history)”。

“flavor” of the phenomenon under consideration.

在本书中我们将采用相对自由的比较方法，而不会试图列出一张累人的类似事件清单。我们一般会将自己限于2-3个事件的比较，例子虽然不多但也基本能将比较历史学的意味展现出来。

Our main objective is to make the book interesting and easy to read. We would like to convey to readers the satisfaction and exhilaration experienced when one realizes that an episode which has just made headlines in the news is in fact modeled on a well-known pattern defined by prior forerunners. This awareness is important because it is the first step in predicting how the episode will likely unfold.

我们的主要目标是使这本书有趣而易懂。如果当读者欣喜地发现近日新闻头条上的事件实则可由耳熟能详的前人定义的模式为蓝本来进行解释，这种满足和愉悦正是我们希望向读者报传递的。这种认知与意识之所以重要，是因为这是预测事件可能如何展开的第一步。

Readers who would like more systematic investigations in which one tries to set up fairly large samples of cases can find such studies in Roehner (Roehner 1997 a, b).

如果有读者想要了解更加系统的大样本调查研究，可以查看勒纳发表于1997年的研究成果(Roehner 1997 a, b)。

Comparative history in China 比较历史学在中国的发展

We have emphasized that in the west, apart from isolated historians like Marc Bloch, very few historians have tried the comparative approach. Before closing this preface one must of course ask “What about comparative history in China?” In a sense, Karl Marx’s philosophy should have been a catalyst. Through his books he appears mostly as a philosopher and economist, but in many of the 400 articles that he wrote for the “New York Daily Tribune” he draws parallels between similar events which had occurred in different places. In short, he had certainly the turn of mind of a comparativist. His book on the coup of the 18th Brumaire (Marx 1852) goes in the same direction. Did this aspect of his work have an imprint on some Chinese historians? We do not know.

我们已经强调过，在西方除了像马克·布洛赫(Marc Bloch)这样的独立历史学家外，很少有历史学家曾尝试比较研究方法。在结束前言之前，我们显然无法回避一个问题：“中国的比较史学发展如何？”从某种意义上讲，卡尔·马克思的哲学本可以起到催化剂(catalyst)的作用。尽管马克思大多以哲学家和经济学家的身份出现，但在其为纽约日报论坛(New York Daily Tribune)所撰写的400篇作品中有很多文章都对不同地点发生的相似事件进行了比较。简言之，他已经实现了比较文学学者(comparativist)思维上的转变。他关于雾月政变(coup of the 18th Brumaire)的著作也有着同样的倾向，这些作品是否影响了某些中国历史学家呢？只是恐怕我们已无从知晓。

There is a well known Chinese historian, Ray Huang, whose approach is said to be bordering on comparatism. One can be sure that Huang was not influenced

by Marx for he was in fact on the Nationalist side before emigrating to the United States in the wake of the Communist victory. One is tempted to draw a parallel between Huang and the French historian Fernand Braudel for both try to look at historical events from a distance and to focus on the main processes. In other words, they both assume that there are mechanisms which have a broad validity. Huang shows how such mechanisms have worked out in China but he does not attempt to show that they were also at work in other places. In short, Braudel (1967) and Huang (1988) proposed a conceptual framework that needs to be substantiated and tested through upcoming comparative studies.

中国有一位知名历史学家黄仁宇(Ray Huang)。其研究方法亦有些许比较研究方法的意味。黄仁宇在共产党胜利之后移民美国，而在此之前他是一位国家主义者，因而有人确信黄仁宇并未受到马克思的影响。有人将黄仁宇与法国历史学家费尔南德·布罗代尔(Fernand Braudel)相比，因为两人都尝试在一定距离上观察历史事件并集中观察主要过程；黄仁宇的大历史观正是为了更清晰地发现历史事件之间的因果联系，而且在其著作中他经常将东西方历史进程进行对比。换句话说，二者都认定对于人类历史而言存在某些普遍适用的规律。黄仁宇指出了在中国这些规律如何发生作用，但是并未尝试详细阐述这些规律在其它地方同样适用。简而言之，布罗代尔(Braudel 1967)和黄仁宇(Huang 1988)提出了一个概念性的框架，但这一框架需要通过日后的比较研究加以证实和测试。

Needless to say, if there are currently comparative historians in mainland China we would be happy to know them and also possibly to meet them. Any information which would help us to get in touch would be greatly valued. Many thanks in advance.

毋庸赘言，如果目前中国大陆有比较历史学家，我们会很高兴与之会面相识。任何帮助我们与之取得联系的信息都极有价值，我们在此先行致谢。