NOTE

ON SOME GAMES AND PRINCIPALLY ON THE CHINESE GAME,

ON THE DIFFERENCE OF THE GAME OF CHESS FROM THE LITTLE ROBBERS (OR LATRUNCULUS), AND ON A NEW KIND OF NAVAL GAME[*]

Godfried Wilhelm Leibniz
Translated from the Latin by

CAMILLE-THÉORDORE-FRÉDÉRIC ALLIEY

We have often remarked that men are never more ingenious than in games; and it is for this that games merit the attention of mathematicians, not for themselves, but because of the art that one discovers there.

Games of chance serve especially in the estimation of probabilities; and we have some very ingenious theories on chance, to which the Chevalier de Méré, known to the public by a rather amusing memoir (on *Agréments*), has given rise to it, and who presented first, to Blaise Pascal, the questions that these, Christian Huygens and Francis Fermat, illustrious geometers, have very elegantly resolved. It is thence that some very diverse questions have resulted which have been able to be treated fundamentally only at length, and at the end of a certain span of time. It is also happened thence that Mr. de Méré, a man of much wit, but of a mediocre instruction and so to speak half-scholarly, foresaw by the force of his intelligence, that which, consequently, so many illustrious geometers, concluded only by the use of mathematical certitude. Puffed up by success and praises, Mr. de Méré believed to be able to take the tone and the role of master toward Pascal, who, I know not by what relaxation of mind, was then wavering between mathematics and an excessive devotion; in the same way he appears in the surprising letter of the first to the second (the 19th of the *Mélanges* of Méré), and of which Bayle, in his *Dictionnaire*, in the article on *Zenon*, being unable to compre-

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hend whence came this arrogance of Méré, who raised so high his inventions, while he ridiculed the demonstrations of the Geometers, proclaiming them false, and combatting the divisibility of time and space to infinity, denying how a philosopher was able to restore completely to him, while he scorned this indivisible world, where the sources of all correctness and of all certitude are contained, in the same way the reasons for all things, truths and unknown principles. It is very true, without doubt, that mathematics is a superior science, of which certitude is always equal, and which is of one virtue and of one most penetrating efficacy, in which the most subtle reasonings, are analyzed not only by the senses, but even by some images, and that the chevalier de Méré had caught a glimpse of something of these truths; he was however too drawn toward the sensible world, in order to be able to appreciate sufficiently this intellectual world.

The games mixed of fortune and combinations represent very well human life, and especially military actions and the practice of medicine, things in which it is necessary to give one part to science and the other to fortune. In the same way the game that the Germans have called *Verkehren*, and which resembles well Tric-Trac, it is thence that it is necessary to unite certain consequences to those that one evaluates by probability and vraisimilitude.

But the sciences are particularly applicable to games which owe their success only to talent and never to chance; among them it is necessary especially to distinguish the Game of Chess or Royal, in which two Kings, escorted by their Lieutenants, Tribunes, Knights and Pawns, fight themselves in a battle line, and on which formerly *Gustave Selenus* who is the same as *Auguste de Luneburg*, since duke of Wolfenbutteln, a prince worthy of praises under many reports, has published a judicious and at the same time very ingenious work.

I would believe easily that the ancient Greeks and the ancient Romans knew this Royal Game; since it appears that it was not similar to the *game of Chess*, which, by chance, was brought later from the Orient. I am at least certain (although this is contrary to the opinion of Claude *Saumaise*, a man of great erudition, and against the one of many others), that the *game of Chess* is entirely different from the one of the *Little Robbers* (Ludo Latrunculorum), that which I prove by the first principle of this last, that the poets have conserved to us. Thus Ovid says: in book 3 of the *Art of Love*:

> Cautaque non stulte latronum proelia ludat, Unus cum gemino miles ab hoste perit.[1]

And Martial, book 14, Epigram 17:

> Calculus hic gemino discolor hoste perit.[2]

This law was perfectly conformed to reason which wishes that two soldiers are worth more than one alone, and it is for this that a piece is lost, if one permits to enclose it, like some ambush of the enemy, between two pieces of the adversary. But there is no trace of this law in our game of Chess, and it is not in its nature.

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[1]Play not imprudently in the artful combat of the Little Robbers, an isolated soldier must perish if he attacks two enemies at once.

[2]This opposing Pawn succumbs to a double enemy.

It is apparent there is widespread some time a singular kind of game that one calls *Solitaire*, and in which I play, even when I am alone, although I prefer to have a companion who serves me as witness and who is able to affirm that I have fulfilled all the conditions of the game. The surface of this game is covered with Pieces fixed in some depressions and which one must raise with order (with the exception however of the first which is chosen at will); each of these Pieces is able to be raised only when another, in passing above it, is able to be placed in a depression near and empty as is practiced in the game of Dames.[3] After that, the one who, by observing this principle, raises them all to the last, has won the game, and the one who leaves more of them on the field of battle, has lost it. This game is able to become more complicated by reversing thus after having placed at will a Piece in any one of the depressions: one will place the others by observing this law, by placing them only according to the condition which had been established in order to raise them, in the first manner to play. One will be able thus to fill all the surface, or that which would be more ingenious, to form with the Pieces a figure given in advance, as a triangle, a square, an octagon, or any other figure, all the time that this would be possible, for it would be impossible, and that which would be more difficult, would be to foresee that which would be able to be executed or that which would be impossible; this manner of proceeding having especially some thing of geometry. As for me, I would praise more the one who would unveil the artifices of this game, than the one who would exercise it with advantage.

I pass to the description of the Chinese game, of which, by occasion, it is pleased to report different things. One is able to see the design of it in the book of Chinese figures which exists in the library of Berlin, whence we have made engraved with care. This game is of the kind of those which depend only on the talent without any mixture of chance; it has this of the singular, that the players (and it appears that there are two of them) do not take their pieces reciprocally, but they besiege themselves and tighten themselves such, that there is one who is winner, but so to speak without death nor effusion of blood, and only by removing the liberty of being moved by his adversary. This which, in the other games, arrives only rarely, is therefore absolutely necessary.

But we hear, relative to this game, *Nicolas Trigaut*,[4] in chapter VIII of the 1st book of the *Christian Expedition among the Chinese*, of the illustrious *Matteus Ricci*, true founder of the missions in China, according to the report of diverse authors. It is expressed thus:

> "There is among them a very serious game, and which consists of a Board of many times three hundred cells." (I believe that this expression should say more than three hundred cells, perhaps by inexactitude of the translation from Ricci, from Italian into Latin, and of that of Trigaut from French into Latin, which expresses rather badly that there are only two players.)
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> "And they play with two hundred pieces of which some are white, and the others black. With these pieces, each of the two players seek to repel those of the other toward the center, in order to be master consequently

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[3] This is Checkers or Draughts. The word Dames refers to the practice of changing the status of a piece to king when it reaches the other side of the board.

[4] Alliey writes here *Frigantius*. Trigaut (1577-1628) was a Jesuit missionary to China.

of the remaining cells, and in the end, the one who is master of a greater number of cells on the Board, is regarded as the winner.

"The magistrates practice this game with the greatest ardor, and they often employ by playing it the greater part of the day, for between skilled players, one single part often endures an entire hour. The one who is strong, when even he would be distinguished by no other merit, is however praised and sought by everyone, and even the magistrates habitually attach some of them near their person, so that instructed by their attentiveness, they are able to understand well the rules of this game."

Here is that which Trigaut reports; but with this description, he lacks evidently an ocular exposition of the figure of the game. This figure is that of a square Table, of which each side is of eighteen cases, that which makes that the number of cases is eighteen times eighteen, that is three hundred twenty-four and not three hundred. The rest of the description is less important, for each of the two players seeking always to push the other toward the center of the Table, it is evident that this is always in his power, but that this is not absolutely necessary, since it suffices that he holds him enclosed, either in the middle, or in one of the angles of the Board; for that one wins the game, who remains the master of a greater number of cases; is it that one is able to understand thence? if this is not the one who, holding his adversary enclosed, is the master of the field of battle.

I easily believe that the magnitude of the Board and the quantity of pieces render this game quite ingenious and quite difficult, although all the rules are not known. However, certainly the singular principle, according to which all the actions of this game have never for end the death of the enemy, but only to push him to the limits of the Table, this principle (which is not found in our games) would merit well that we spoke of it. It is possible that some Brahmin has invented it, and that this sage, abhorrent of murder, wished to obtain a victory not soiled by blood; for it is constant that many peoples of the oriental Indies, more Christian, if I dare say it, than those who bear the name of it, have the habit to avoid murder, even in war.

Let us report also a new kind of game, which is named the *Naval game*, and where one combats on a table, as with some fleets on an imaginary sea, the pieces representing some vessels pushed by the winds on a determined beach, this which prescribes the obliquity of the path against the wind and the speed of movement relative to this angle of obliquity, and according to this the evolutions are executed in the small and are exercised in play.