EARLY REMARKS ON THE ARS CONJECTANDI

MARQUIS DE L'HOSPITAL, JOHANN BERNOULLI AND GOTTFRIED LEIBNIZ

Extract from a letter from L'Hospital to Johann Bernoulli 8 December 1692 at Paris Der Briefwechsel von Johann I. Bernoulli Band 1, pp. 190–191.

"...I pray you to pay a thousand compliments on my part to Mr. your brother ...I have much impatience to see the rest concerning infinite series...I believe quite easy to know ...what are those extraordinary problems of which he spoke to you in his last letter¹ ...demand to him also what is this proposition which is in his book *de arte conjecturandi* of which he regarded the discovery as much as the quadrature of the circle..."

Extract from Letter XLIV of Johann Bernoulli to Leibniz 16 February 1697 at Groningen (Netherlands) *Leibnizens mathematische Schriften*, Bd. III, pp. 364–368

"Concerning the game of Bassette some mathematician² had considered it thus far, I am ignorant of the certain one; I wished to see it: for instance already after long years my brother labors at a work, which he will entitle *ars conjecturandi*, where not only will he treat all games mathematically, but besides he treats others in all kinds of modes of life applying the rule to calculate probabilities; I do not know however if he will not have abandoned the work incomplete, at least to me, once I talked over some things and I have judged these same things should not be spurned, already with difficulty he will not cancel his customary practice of agitation because of jealousy. Besides it is a long time since what Mr. Huygens produced in any respect concerning games of chance. Likewise in mathematical works in folio (*Oeuvres de Mathématique*) something a very few years past has appeared in Paris, the something to see is by Frenicle³ on combinations, where furthermore he urges contentions concerning lots in the Genoise Election of Senators should be investigated."

> Extract from Letter XLVIII of Leibniz to Johann Bernoulli 5 March 1697 at Hannover Leibnizens mathematische Schriften, Bd. III, p. 377

"Furthermore it comes to mind again because you had written concerning the *Ars conjecturandi* of your Mr. brother; it will certainly not be condemned. I likewise have considered such now formerly, especially in the use of Jurisprudence and Politics. I name probability the Doctrine of degrees. Can it be that your brother will urge even now with regard to the art, which they call, *deciphrandi*, which certainly deserves to be treated by a mathematician: any which until now exist in that thing, are of small importance. I would wish yet someone might arise, who might treat every kind of games."

Translated by Richard J. Pulskamp, Department of Mathematics and Computer Science, Xavier University, Cincinnati OH. August 16, 2009.

¹Unfortunately we neither possess the letter of Jacob to his brother nor that of Johann to L'Hospital. ²Saveur, *Journal des Sçavans*, 1679.

³Bernard Frenicle de Bessy, **Abégé de Combinations**, *Mémoires de l'Académie Royale des Sciences* Depuis 1666 à 1699, Vol. V pp. 118–123.