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Layout

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Cover

Cambridge, Mass., Harvard Art Museums/Arthur M. Sackler Museum, Gift of Philip Hofer, MS 1984.463. fol. 61r: This folio shows in the middle at the right the riddle text in large letters in *thulūth* calligraphy. Between the five lines of this riddle is a part of an Arabic philosophical work in *naskhī* comprising three lines in each piece. In red, numbers and words are placed mostly below individual words of the riddle referring to letter magic. Around this centre piece, two brief Persian texts in *nastaʿlīq*, an Arabic table, and a triangular diagram between lines of an Arabic explanation can be found. Both Arabic pieces are written in *naskhī*. The Persian text above the table introduces the lunar mansions, which the table enumerates. The Persian text in the left margin, entitled „A gem on theoretical philosophy about true speech", deals with themes from *kalām*. The triangular diagram with its surrounding Arabic text treats the cosmological division of the universe in Muslim terms, beginning with God's throne and descending through the Ptolemaic planetary sphere to the four Aristotelian spheres of the sublunar world to the underworld.

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Manifestation in the One: Singularity of Knowledge in Mīrzā Ibrāhīm's *Numerical Riddle* (*Lughaz-i marqūm*)

Razieh S. Mousavi and Hamid Bohloul | Berlin

1. Introduction

The focus of this paper is on the substantial role that numbers play in presenting and integrating different branches of science in a Safavid multiple-text manuscript assembled in 1070 H/1660 CE. Compiling his book in a puzzle-like form, Ẓahīr al-Dīn Muḥammad Ibrāhīm (fl. eleventh century H/ seventeenth century CE), better known as Mīrzā Ibrāhīm, employed number-letter relations as the main instrument to support the doctrine of the Oneness of Being. Using numerically patterned models for codifying and linking the principles in various fields of study, from theological concepts to natural phenomena, he sought to support his perspective of the singularity of knowledge (*ʿilm*). In this study, we show how quantitative models have been employed in the work to acknowledge the harmony and monism of the universe. By analysing a range of quotations in *Lughaz-i marqūm*, from (Neo-)Pythagorean knowledge through the channels of *Ikhwān al-Ṣafāʾ* (third–fourth centuries H/nineth–tenth centuries CE) and *al-Shahrastānī* (479–548 H/1086–1153 CE) to Islamicate esoteric activists like the foremost letterist Ibn Turka (770–835 H/1369–1432 CE), this study highlights Mīrzā Ibrāhīm's pedagogical aims and in particular his enthusiasm for numerology and universal science.[1]

Mīrzā Ibrāhīm's compilation, mostly recorded as *Lughaz-i marqūm* ('Numerical Riddle') in bibliographical books, is extant in at least seven manuscripts, only four of which were available to us for this study.[2] These four copies differ in various respects, including their beginning and length. The assigned chronogram names the book *Nihāyat al-aqdām fī ṭawr al-kalām* ('The Last Steps in the Domain of the Word'), which corresponds to its production time: 1070 H/1660 CE. Despite their variations, all four manuscripts contain a numbered table of contents, which leads the reader to the desired sections. The story told about the production of the text, the name of the author-compiler and the title/ chronogram, appear in decorative illuminations in all four manuscripts.

Mīrzā Ibrāhīm was a superintendent at the Safavid king's mausoleum (the tomb of Shāh ʿAbbās II [d. 1077 H/1666 CE] in Qom) and was also the vizier of Azerbaijan. His high-ranking position as a government official is attested not only by surviving letters and documents, but also by his endowment deeds and reports about his meetings with European travellers, both of which have left us valuable insights into his activities. Fortunately, one of his endowment deeds is still available in its original form. This note was composed for a complex of endowed institutions including a school (madrasa) and a mosque in Surkhāb, a well-known district in Tabriz, centred around a holy shrine.[3] According to

[1] This paper is primarily based on a presentation that the first author gave at a workshop at the Centre for the Study of Manuscript Cultures in Hamburg in 2018 entitled 'The Safavid Multi-Text Manuscript 1984.463 (Harvard University, Sackler Museum) – Its Content and Context'. The second author made a significant contribution to the decoding of the number-letter table and the related material within *Lughaz-i marqūm*.

[2] The four copies available to us were all copied by a certain Muḥammad Shafīʿ Tabrīzī despite their marked differences: Tehran, Malek National Museum and Library, 1517/4, 105 pp., copied in 1085 H/1674 CE; Istanbul, Süleymaniye Library, Ayasofya 4785, 192 fols, copied in 1086 H/1675 CE; London, British Library, Or. 12974, 200 fols, copied in 1089 H/1678 CE; Cambridge, Mass., Harvard University, Sackler Museum, 1984.463, 133 fols, copied in 1098 H/1687 CE. Online images of the latter are currently available at this address: <https://hvrd.art/o/215600> (accessed 30 July 2024). The following three manuscripts were unavailable to us: Tehran, Sāzmān-i Asnād va Kitābkhāna-yi Millī-yi Iran, F 56/9 under the title *Risāla-ī dar baʿḍī az mabāḥith-i falsafī va riyāḍī* ('A Treatise on Some of Philosophical and Mathematical Subjects'). The manuscript was copied by Sharaf al-Dīn b. ʿAbd al-Wāḥid al-Anṣārī in 1113 H/1701 CE, who complained about the erroneous exemplar he had used; Tehran, Malek National Museum and Library, 1378/2, undated, incomplete; Qom, Marʿashī Najafī Library, 12158/5, copied by Muḥammad Zanjānī in 1266 H/1850 CE. Shams Anwari-Alhosseyni also reports about a manuscript on *muʿammā* preserved in the University of Tehran. It was allegedly compiled by a certain Mīrzā Ibrāhīm under the title *Dastūr-i muʿammā* ('A Manual of *Muʿammā*'). The treatise includes only selections of *muʿammās* by famous men, but no personal contribution was added by its obscure author; Anwari-Alhosseyni 1986, 19.

[3] The documents of institutions endowed by Mīrzā Ibrāhīm and his brother in Tabriz were first published by Hāshimiyān 1392 H/2013. This source was not available to us directly, but we were able to consult it through another publication by Hāshimiyān in which the deeds are quoted in detail; Hāshimiyān 1393 H/2014, 339–370. A detailed study on these documents

this document, Mīrzā Ibrāhīm endowed these institutions in 1090 H/1679 CE when he was the vizier of Azerbaijan during the reign of Shāh Sulaymān (r. 1077–1105 H/1666–1694 CE).[4] The copy of *Lughaz-i marqūm* preserved at Harvard University (henceforth MS H) bears a dedication note (fol. 1b) to the eighth Safavid king, Shāh Sulaymān, accompanied by his genealogy (fol. 11a). The structure of the book is such that it walks the reader through the topics with the aim of having all the required material available in one collection. The numbered folios and the table of contents facilitate the users' navigation through the lengthy book. The work brings together a mixture of selected known texts and Mīrzā Ibrāhīm's own compositions in a bid to achieve a specific objective: singularity of knowledge (*ʿilm*).

Strictly speaking, the book is neither an encyclopaedia nor are its pieces assembled as a patchwork; a key aspect of the collection is that mathematical relations are a central unifying feature of varying topics. We examine this feature in three steps: In the first part, the numerical puzzles are analysed which the author-compiler refers to as his main point of interest and concern. The second part of this paper consists of the supporting texts the author gathered to bolster his viewpoints about Pythagorean knowledge in general and number-letter relations in particular. Mīrzā Ibrāhīm's perspective on universal knowledge and his pedagogical concerns are the focus of the third part of our paper. We locate his scholarly attitude at the crossroads of his social and political activities as a courtier. The fact that he endowed a mosque and a school in Tabriz and paid remarkable attention to the curriculum regulated for the sponsored students gives us an insight into his educational approach. From the outset, it should be noted that our focus is primarily on the mathematical aspects of the codex. This provides us with a lens through which to study one facet of Mīrzā Ibrāhīm's agenda.

has been written by Werner 1999. *Imāmzāda-yi Sayyid Ḥamza* is the name of the holy shrine that Mīrzā Ibrāhīm chose to build his complex around. For information on this historical monument and its surroundings, see Kārang 1351 HS/1972.

[4] The sponsored mosque and school in Tabriz are also described by the Italian traveller, Gemelli Careri 1708, 31.

2. Number-letter riddles

Mīrzā Ibrāhīm relates an evening banquet where he and his friends among the intellectuals entertained each other by exchanging riddles and conundrums.[5] After a while, the group came to some puzzles created by two former viziers,[6] which were based on the properties of two numbers: fifty-five and a hundred. The technique required to solve the puzzles is reflected in the way Mīrzā Ibrāhīm names them: 'attributes of the number of Hamadān and its two sides'. Literally speaking, Hamadān is the name of a city in Iran, but what is aimed at here is its numerical value, which is derived from the values of its *abjad* letters H, M, D, A, N, which yields a hundred. Likewise, the sum of the *abjad* values of the initial and final letters of the word (*hā* and *nūn* = H, N) results in what is meant in the puzzle by 'the two sides' of the word and gives the second number: fifty-five. The two puzzles are built on the same number-letter correlation employing addition as a simple mathematical operation.[7] The ultimate goal of these riddles was not to find the answers to them (because the answers were given to the reader or listener at the beginning); the pleasure associated with them was created by juggling with computational methods and switching back and forth between letters and numbers. There

[5] Mīrzā Ibrāhīm names two main forms of Persian riddles here: *lughaz* and *muʿammā*. While both share some similarities in terms of their methods of riddling and decipherment, the two genres also have structural differences. Generally speaking, *lughaz* appears mostly in a question-and-answer mode and refers to the names of things by listing their qualities and features, whereas *muʿammā* hides the answer in a sequence of enigmatic operations. Mīrzā Ibrāhīm might have had this distinction in mind when he named his book *Numerical Lughaz*. We have not encountered this kind of naming before in catalogues of Persian manuscripts. The lead was probably taken from *Lughaz-i manẓūm* ('Poem Riddle'), a well-known Persian puzzle. For more information on the definitions and differences between *lughaz* and *muʿammā*, see Anwari-Alhosseyni 1989, esp. 69–72, 78, 83; Windfuhr 2009, 312–332.

[6] These two viziers were referred to as Khalīfa Sulṭān and ʿĀlījāh Muḥammad Khān Iʿtimād al-Dawla. The former title probably relates to Ḥusayn b. Rafīʿ al-Dīn Muḥammad (1001–1064 H/1593–1654 CE), also known as Sulṭān al-ʿUlamāʾ. He was a legal scholar who served three Safavid kings. The latter title most probably applies to the grand vizier of Shāh Sulaymān, Mīrzā Muḥammad Ṭāhir Qazwīnī, a well-known poet.

[7] In his book *Zanbīl*, Farhād Mīrzā Muʿtamad al-Dawla (1233–1305 H/1818–1888 CE), a Qājār prince-governor, has attributed Khalīfa Sulṭān's riddle to the Timurid sultan Ulugh Beg (796–853 H/1394–1449 CE). While Farhād Mīrzā remains faithful in quoting the riddle, his final answer, five, differs from the original one, fifty-five, but it still fits in a very interesting way: the Persian equivalent of five is *panj*, the *abjad* numerical value (BNJ) of which is equal to fifty-five. Mohammad Bagheri has published the text and the solution of the riddle based on Farhād Mīrzā's book; Bagheri 2019, 143–147. It seems that the two riddles by the viziers circulated widely under different titles. For another example with the title *Lughaz-i aʿdād* ('Riddle of Numbers'), see Anwari-Alhosseyni 1986, 30, in which Mīrzā Ibrāhīm's note on the evening banquet is also mentioned, albeit with no specific reference to him.

was no limitation to employing Arabic *abjad* numerals for Persian words. The Persian characters Ch, G, P and Zh[8] are treated the same as their analogue ones in Arabic, i.e. J, K, B and Z respectively.

Mīrzā Ibrāhīm tells the reader that he was requested to offer a more elaborate riddle than those of the two viziers during the banquet. The expectation was to formulate a puzzle which would be more surprising and entertaining than mere mathematical relations and perplexing letter-based compositions. Such a high-level riddle was supposed to function as 'an interpreter to some parts of true knowledge and subtleties of wisdom',[9] befitting the intelligence of prominent scholars. Although he claimed that he was too busy with his courtly duties, Mīrzā Ibrāhīm decided to undertake this mission with modesty. He tells the reader that his riddle follows those of the two viziers. He describes it as a haphazard collection of *lughaz*-carrying words on the virtues of the One in different respects. He starts with a one-folio-long table filled with coded numbers and letters, giving it the title *Jadval-i taʿayyunāt-i vāḥid* ('Table of the Manifestations of the One'). This chart, we argue, should be understood as the main numerical visualisation of his plan to express the universality of the world in a grandiose scheme and to demonstrate the derivation of multiples from the One.

The development of a systematised sequence of discrete numbers on the basis of one[10] gives the audience an example of all the phenomena in universal dimensions. The Arabic word for one, *wāḥid*, is expanded into its letters through specific operations which generate other cells filled with numbers as well as Arabic and Persian characters. Apart from needing a considerable command of isopsephy, deciphering this clueless table requires one to be familiar with predefined methods of running number-letter games, which the reader finds an extensive explanation of in a treatise enclosed in Mīrzā Ibrāhīm's book.[11] A selection of expansions (*basṭ al-ḥurūf*) are explained and exemplified there, which were common knowledge among Sufi lettrists. One decisive step in solving such a riddle is that the methods employed have to be guessed first. As it is reconstructed in Figure 1, the table consists of two sub-tables surrounded by a margin. Each of these three parts contains some letters and figures generated from the 'one'. As one would expect from an enigmatical table, its title is scattered in different cells, four at the corners of the table and the fifth in the central cell of the first row in the upper table. Taken together, the cells can be read in Persian as *Maẓāhir-i mutafannina-yi vāḥid dar maraj al-baḥrayn lughatayn tāzī va darī* ('Artistic manifestations of the One in the two mixed seas: the two languages Arabic and Persian'). To provide a better sense of the underlying mechanism, we shall present our decoding of the upper part of the table here (Fig. 1, in the grey cells):

1. The central cell of the table is filled with *wāḥid* ('one'), which is one of the five cells that contain the table's title. The four letters of *wāḥid* (WAḤD) are detached and placed in the two immediate cells on either side of the central cell from right to left, as is customary in Arabic/Persian script.

2. The cells below these four letters are occupied by their respective literal expansions[12]: *wāw* (WAW), *alif* (ALF), *ḥā* (ḤA), and *dāl* (DAL).[13]

3. The *abjad* values of these four words are written in the cells below them, i.e. 13, 111, 9 and 35.

4. The next four cells are filled with the Arabic words for the first row's numerical equivalents, namely *sitta* ('six'), *aḥad* ('one'), *thamāniya* ('eight') and *arbaʿa* ('four').

[8] In fact, Arabic letters with additional diacritical points were introduced to match these extra sounds in Persian.

[9] According to MS H, fol. 4b, this sentence reads as follows: ترجمان برخی از معارف حقیقیّه و دقایق حکمیّه گشته.

[10] In ancient Greek mathematics and philosophy, 'one' was regarded as a unit rather than a number; see Heath 1960, vol. 1, 9–70. However, scholars in Islamicate societies are not unanimous in this regard; one group followed the Greek tradition (like Abū ʿAbdallāh Khwārazmī in *Mafatīḥ al-ʿulūm; Khwārazmī, Mafatīḥ al-ʿulūm*, ed. van Vloten 2005, vol. 4, 1840), and the other was opposed to that view (like Jamshīd al-Kāshī in *Miftāḥ al-ḥisāb*. See Tehran, Malek National Museum and Library, 3180, fol. 4a). Accordingly, the metaphysical position of not considering 'one' as a number had been known since antiquity.

[11] This treatise, entitled *Anwāʿ al-basāʾiṭ al-ḥarfiyya* ('Different Kinds of Literal Expansion') can be found in MS H, fols 40b–41b. There is no author attributed to this tract. However, a date mentioned in the text conforms with the production date of Mīrzā Ibrāhīm's *Numerical Riddle* (1070 H/1660 CE), which makes him the best candidate for its authorship.

[12] Literal expansion is a common practice in the science of letters (*ʿilm al-ḥurūf*) in which the alphabetic names of the letters in a word are considered.

[13] Note that in counting the *abjad* numerical equivalents, words are considered without any vowels they contain. Thus, *alif* is regarded as ALF.

5. The *abjad* numerical values of these four Arabic words, i.e. 465, 13, 606 and 278, are placed in the cells below them.

6. In the sixth row, there are four Persian names corresponding to the *abjad* numerical values of the letters in the first row: *shish*, *yik*, *hasht* and *chahār*.[14]

7. The *abjad* numerical values of these words are found in the four cells of the next row, i.e. 600, 30, 705 and 209.

8. The central column below *wāḥid* begins with a figure, 7, and the Arabic word *awwalayn*, which can be translated as 'the first two ones'. It refers to the first two letters of *wāḥid*, placed in the first row in the last two columns due to the direction of Arabic script from right to left. The sum of their numerical values is 7.

9. The three numbers appearing below this cell also result from the function of *awwalayn*. The sum of the first two numbers in the third, fifth and seventh row of the table read from right to left equals the three numbers in this cell, i.e. (13+111=) 124, (465+13=) 478 and (600+30=) 630. The Arabic words *wādī ayman*[15] next to these numbers literally means 'the right side of the valley' and are a metaphor as the author compared the two columns to a valley here. We can thus claim that it is an enigmatic parallelism for *awwalayn*.

10. The fourth cell of the central column is filled with the Arabic word *ākharayn*, which means 'the last two ones'. The last two letters of *wāḥid* are Ḥ (=8) and D (=4) and the sum of their numerical values is 12, which is the figure that appears next to *ākharayn*.

11. The lower cell embraces three numbers and an Arabic term. Each of these numbers is equal to the sum of the two cells containing Arabic numbers on the left side of the central column in the third, fifth and seventh row, i.e. 9+35 (=44), 606+278 (=884), 705+209 (=914). The Arabic phrase of *aṣḥāb shamāl*[16] literally means 'companions of the left side' and refers to the Arabic numbers in the left-hand columns. Again, it should be regarded as an enigmatic parallelism for the word above it, which is *ākharayn*.

12. The sixth cell in the central column contains the Arabic word *ṭarafayn* ('the two sides') and a number (10). If one separates the letters at either end of *wāḥid*, they yield W and D, whose numerical values are 6 and 4, so it is obvious that the number beside *ṭarafayn* is the sum of these two amounts.

13. The three numbers in the lower cell are generated from the first and fifth column. It can be seen that 13+35=48, 465+278=743 and 600+209=809. The Arabic expression *khāfiqayn* located beside these numbers literally means 'east and west' and is also a parallelism for *ṭarafayn*. The other cells in the central column were filled according to the same methods.

Mīrzā Ibrāhīm's table demonstrates how different types of expansions are employed to express the ideology of the root of all appearances in the One. The identified operations play creatively with literal, phonetic, sequential and numerical matches of the letters so as to have the utmost effect on the audience by showcasing a state of harmony in the tabulated numbers and letters. These methods in the 'science of the letters' (*ʿilm al-ḥurūf*) were widely used by lettrists.[17]

The prose riddle starts after the table and employs the aforementioned structure, consisting of a long chain of outwardly unrelated words and phrases often showing rhymed or metrical properties in Arabic and Persian. Some of the assembled parts are, in fact, extracts from verses of the Qurʾān, *Ḥadiths*, and well-known essays and poems. No meaningful continuity seems to have been intended among the pieces of expressions. The prose riddle is placed in uniform boxes through the folios, inscribed in a bold style of calligraphy leaving space between the lines. This space is filled with the texts referenced in the opening table of contents in a different set of calligraphic styles, sizes and colours (Fig. 2). The enigmatic aspect of these boxes, we believe, emerges

[14] The table consists of seven columns, but the first and last columns only have two cells in them. The first and last columns are called marginal columns henceforth. We have consequently made a 13 × 5 table with two marginal columns.

[15] This expression is actually derived from a Qurʾānic verse (28:30) referring to the place where Moses first received revelation.

[16] It is a Qurʾānic phrase (56:41) referring to the people who will reside eternally in hell after the Day of Judgement.

[17] For an extensive introduction to expansion methods, see al-Tahānawī, *Mawsūʿat kashshāf iṣṭilāḥāt al-funūn*, ed. Daḥrūj 1996, vol. 1, 328–334.

17 بسط عددی س ت ه ا ح د ث م ا ن ی ه أ ر ب ع ه 1362[18]	د	ح	واحد	أ	و	6 خالصات 129 قكط و ا ل ف ح د
	دال	حا	أولين 7	ألف	واو	
	35	9	وادي أيمن 124[13] 78 630	111	13	
	أربعة	ثمانية	آخرين 12	أحد	ستة	
	278	606	أصحاب شمال 44 884 914	13	465	
	چهار	هشت	طرفين 10	یک	شش	
	209	705	خافقين 48 743 809	30	600	
13 خالصات س ت ه ا ح د ث م ن ی ر ب ع 1350	أبجدي 4 أبتثي 8 أهطمي 22 إيقغي 11	أبجدي 8 أبتثي 7 أهطمي 23 إيقغي 23	وسطين 9 بين الأفقين 120 619 739 أكثرين 14 مطلع السعدين 22 1071 1305 أقلين 5 أدبين 146 291 239[14]	أول الأوائل متواليات أربعة أبجدية وأهطمية وأبتثية وإيقغية	أبجدي 6 أهطمي 9 أبتثي 27 إيقغي 17	11 بسط حرفي 168 حسق و ا و ا ل ف ح ا د ا ل

Fig. 1: A reconstruction of the number-letter table in *Lughaz-i marqūm*. There is a one-row tabular margin around this part which is not displayed here. A step-by-step decipherment of the grey-coloured part is carried out in this chapter.

[18] All our available copies give 1372 instead of the computed number 1362, which may simply be a miscalculation. As there are a small amount of numbers which violate the overarching rule of the table, namely linking the contents of the cells to the expansions of the One, we believe that these differences are due to scribal or calculation errors.

[19] All our available copies say 224 rather than 124.

[20] All our available copies say 391 rather than 291. This mistake and previous scribal errors may indicate that all four manuscripts that we consulted have a common ancestor.

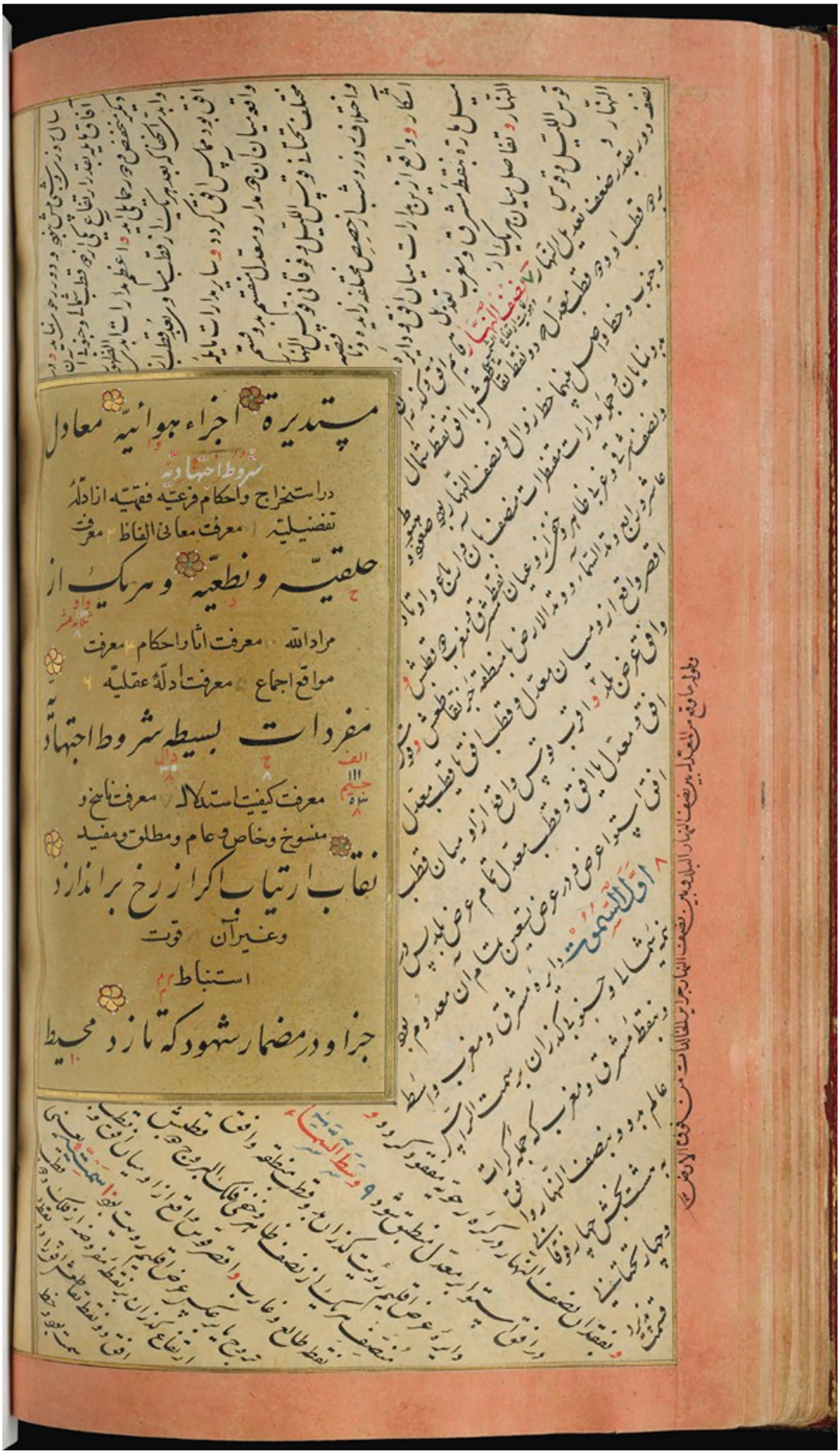

Fig. 2: Cambridge, Mass., Harvard University, Sackler Museum, MS 1984.463, fol. 32b.

where number-letter characters sporadically show up as interlinear notes. Since unlocking all of this dense work is beyond the scope of this paper, we shall only mention two examples here. The first one appears in a text on *fiqh* ('jurisprudence') and enumerates the qualities a scholar must possess in order to exercise *ijtihād* (the process of deriving Islamic legal rules), whose number is said to be eight.[21] As it is reconstructed in Figure 3, a key phrase is recognisable in the prose riddle with attached number-letter characters derived from the literal expansion of the One (*wāḥid*) in which all operations finally yield the same result: eight. Here is the solution:

First, the word *wāḥid* is broken down into its four consonants: WAḤD. Accordingly, four different operations continue whose outputs are all 8. These four steps are as follows: 1) W equals *wāw* in terms of its alphabetical name. *wāw* yields 13 as a number, which has 8 letters in its Arabic written form.[22] 2) The alphabetical name of A is *alif*, with 111 as its *abjad* numerical equivalent; 111 has three digits, implying the third letter of the *abjad* order, *jīm*; *jīm* yields 53, whose digits add up to 8. 3) Ḥ simply equals 8 in *abjad*. 4) *Dāl* is the alphabetical name of D, whose *abjad* equivalent is 35; again, the sum of its digits is 8.

The author's aspiration to draw the manifestation of the One from all the sciences is displayed here, although in this case it simply appears as an enumerator.

Our second example is not as straightforward as the first. It concerns astronomical knowledge where a text on celestial circles accompanies the riddle box. Correspondingly, two related phrases appear in the prose riddle, one referring to the great circles and the other to the celestial spheres. The numbers 10 and 9 appear beneath each one respectively and refer to their assigned types: ten well-known great circles

مستديرة * اجزاء هوائيه * معادل
شروط اجتهاديه
در استخراج و احكام فرعيّه فقهيّه از ادلّهٔ
تفضيليّه ۱ معرفت معانى الفاظ ۲ معرفت
حلـقيّـه و نــطــعيّه * و هـريک از
واو
۱۳
ثلاثه عشر
۸
مراد الله ۳ معرفت اثار و احكام ۴ معرفت
مـواقع اجماع ۵ معـرفت ادلّهٔ عـقليّه ۶
مفـردات بسيـطه شروط اجتـهاديّه *
الف ح دال
۱۱۱ ۸ ۳۵
جيم ۸
۵۳
۸ معرفت كيفيت استدلال ۷ معرفـت ناسخ و
منسـوخ و خـاص و عام و مطــلق و مفيد
نقـاب ارتياب اكـر از رخ براندازد *
و غير آن ۸ قوت
استنباط م م
م
جزاو در مضمار شهود كه تازد * محيط

Fig. 3: Reconstruction of the prose-riddle box in MS H, fol. 32b.The colours have been picked to match the manuscript's own as much as possible, except for blue, which is white in the original; the white background here prevents us from using it. The calligraphy does not follow the manuscript, but the different scripts are in an approximate relation to each other with respect to the actual size. The diacritics and writing structure conform with the scribe's work. Some tiny sporadic characters have been left out here to focus on the example mentioned in our paper.

and nine concentric celestial spheres.[23] Applying expansion methods reveals the following connections between these numbers and the attached phrases:

[21] The number of these qualities may differ in various texts. As shown in Figure 2 and its constructed image in Figure 3, the eight qualities necessary to become a *mujtahid* according to *Lughaz-i marqūm* are as follows: 1) knowledge of the meaning of utterances (*maʿānī-yi alfāẓ*); 2) knowledge of God's intended meaning (*maʿrifat-i murād Allāh*); 3) knowledge of the reports and the rulings (*maʿrifat-i āthār va aḥkām*); 4) knowledge of the instances of (using) consensus (*maʿrifat-i mawāqiʿ-i ijmāʿ*); 5) knowledge of the rational indicators (*maʿrifat-i adilla-yi ʿaqliyya*); 6) knowledge of how to demonstrate things (*maʿrifat-i kayfiyyat-i istidlāl*); 7) knowledge of abrogating and being abrogated, the particular and the general, the unqualified and the qualified and the rest (*maʿrifat-i nāsikh va mansūkh va khāṣṣ va ʿām va muṭlaq va muqayyad va ghayr-i ān* [*mufīd* in MS H]); and 8) the ability to perform inferences (*quwwat-i istinbāṭ*). We would like to thank Robert Gleave for his suggestions to improve the translation in this footnote.

[22] As the figure shows, the scribe uses *thalātha*, with *alif*, standing for 3.

[23] According to the accompanying text (MS H, fols 32a–33a), the ten types of great circles are as follows: the Celestial Equator, Ecliptic, Solstitial Colure, Circle of Declination, Circle of Latitude (*dāʾira-yi ʿarḍ*), Horizon, Meridian, Prime Vertical (*awwal al-sumūt*), Upper Culmination (*wasaṭ al-samāʾ*) and Circle of Azimuth (*samtiyya*). The spheres of the Sun, the Moon, the five planets, fixed stars and the sphere of the spheres are meant to be the nine co-centred celestial spheres.

The word *muḥīṭ* ('circumference') appears as the code for the great circles, whose two last letters (*ākhirayn*) are IṬ. Their *abjad* equivalents are 10 and 9, making 19 altogether. Finally, the sum of 19's digits is 10. Likewise, *kurāt* ('spheres'), which represents the number of celestial spheres, corresponds to 621 in *abjad*, and the sum of the digits is 9. Interestingly, the sum of 10 and 9 is 19, which is the *abjad* equivalent of the One (*wāḥid*).

In this example, a numerical match is helping the author to encode a branch of the mathematical sciences and to emphasise the controlling role of number-letter relations in the universe. Moreover, this style of notation can be seen as a pedagogical strategy to facilitate the process of memorisation. Short, rhymed phrases together with memorisable codes suggest an educational intention as a further aspect of Mīrzā Ibrāhīm's book, particularly if we take his educational perspectives into account. We shall investigate this question in the third part of this study and will see how it sheds more light on *Lughaz-i marqūm* thanks to its textual and contextual evidence.

3. Mīrzā Ibrāhīm's Pythagoras

Lughaz-i marqūm consists of approximately 120 synopses from different branches of knowledge, including logic, philosophy, theology, mathematics, astrology and mysticism, with a slight variance among the surviving copies. The languages employed in the texts are Persian and Arabic, but Persian predominates. The traces of Pythagorean influence are obviously strong and seem to have been of some attraction to Mīrzā Ibrāhīm, who quoted these teachings through Muslim mediators. The degree of authenticity of Pythagoras' views in the works of his followers has been debated at considerable length, but still remains an enigma.[24] However, his belief in the significance of numbers and their mysterious presence in all phenomena is incontestable. The flowering of Pythagoreanism within Islamicate culture is now well recognised and the works of its major exponents have been relatively well studied. The *Ikhwān al-Ṣafāʾ*, an anonymous intellectual fraternity known in English as the Brethren of Purity, identified themselves as fully fledged disciples of Pythagoras. Despite benefiting from the (Neo-) Pythagorean materials[25] and inspiration in their encyclopaedia entitled *Rasāʾil* ('Epistles'), they formulated their own discipline, treating numbers not only as arithmetic values, but as metaphysical entities as well.[26] For Mīrzā Ibrāhīm, the *Ikhwān al-Ṣafāʾ* were true followers of Pythagorean knowledge and he referred to the *Rasāʾil* in various places.[27] The *Ikhwān's* appealing doctrine of considering arithmetic as a path towards the Oneness of God is highlighted in *Lughaz-i marqūm*.

In addition to the *Rasāʾil*, Mīrzā Ibrāhīm relied heavily on the *magnum opus* of al-Shahrastānī (479–548 H/1086–1153 CE), *Kitāb al-Milal wa-l-niḥal* ('The Book of Sects and Creeds') on heresiography. In a prefatory note explaining the essential manifestation of unity in multiplicity (MS H, fols 12b–13a), he expresses Pythagoras' views by rewriting and combining doxographical notes mentioned by the *Ikhwān al-Ṣafāʾ* and al-Shahrastānī without naming them as sources.[28] He stresses that the 'primary mirror' (*nakhustīn ʿaks*) that reflects the Oneness in the world is numerical unity (*vaḥdat-i ʿadadī*). In the prefatory note and other occasions throughout the *Lughaz-i marqūm*, he uses the words 'from my composition, *al-Jāmiʿa'* (*min taʾlīfinā al-Jāmiʿa*) when referring to the sources of his texts; the latter are introduced as extracts from a composition of his own comprised of rearrangements of existing works.[29] He is not very systematic about mentioning his sources in this section, though, probably for didactical reasons or due to the availability of the works he used. Although the *Ikhwān al-Ṣafāʾ* and al-Shahrastānī provide two different lenses through which to view Pythagoras' picture, the former as believers

[24] For an overview of the study of early Pythagoreanism, see, for example, Zhmud 2012. On Pythagorean knowledge in different periods, see Renger and Stavru 2016.

[25] Neo-Pythagoreanism is a modern term referring to a school of Hellenistic philosophy which reformed Pythagorean doctrines by adopting philosophical tenets mostly drawn from Platonic teachings. Neo-Pythagorean views were later received by thinkers of the Islamicate world, mainly through the works of Nicomachus of Gerasa. For an exhaustive study on (Neo-) Pythagoreanism available online, see Huffman 2019.

[26] For an informative study on *Ikhwān al-Ṣafāʾ*, see de Callataÿ 2013.

[27] For instance, in MS H fol. 17b, an extract is quoted from part of the thirty-third chapter of *Ikhwān's Rasāʾil* on the *ʿilm al-ḥurūf* in (Neo-)Pythagorean tradition. A synopsis related to (Neo-)Pythagorean doctrines regarding the unity of God and the sequence of numbers can be found on fol. 28b.

[28] The following texts are among those attributed to *Ikhwān al-Ṣafāʾ* and al-Shahrastānī that were used in *Lughaz-i marqūm*: *Rasāʾil ikhwān al-Ṣafāʾ*, ed. al-Bustānī 1412 H/1992, vol. 1, 199, vol. 3, 56; al-Shahrastānī, *al-Milal wa-l-niḥal*, ed. Mahnā and Fāʿūr 1415 H/1995, vol. 2, 395–400.

[29] *Taʾlīf* ('composition') in contrast to *taṣnīf* ('compilation') refers to a work from Islamicate book culture that has been paraphrased or re-expressed. For more on the history of this editorial task, see Gründler 2020, esp. 53.

and the latter as a historian of thoughts,[30] they both seem to have equal weight for Mīrzā Ibrāhīm. Two folios later (MS H, fol. 15a), however, he inserts a short passage from *Kitāb al-Milal wa-l-niḥal* on the metaphysics of the number one, this time quoted explicitly. In his discussion of Pythagoras, al-Shahrastānī distinguishes between the essential oneness (*bi-dhāt*) of God as the Creator and the accidental oneness (*bi-l-ʿaraḍ*) of creatures including the number one.[31] To him, the Oneness of God is real, whereas the arithmetical one is only a mirror image.[32] This is exactly the same piece of the *Kitāb al-Milal wa-l-niḥal* echoed by Mīrzā Ibrāhīm, albeit in a synopsis. It suggests that he intentionally adhered to al-Shahrastānī's specific understanding of Pythagoras' view on the relationship between God and the number one. Mīrzā Ibrāhīm's respect for al-Shahrastānī also becomes apparent in the chronogram of the *Lughaz-i marqūm*, i.e. *Nihāyat al-aqdām fī ṭawr al-kalām* ('The Last Steps in the Domain of the Word'). This phrase has a conspicuous similarity with another compilation by al-Shahrastānī, *Nihāyat al-aqdām fī ʿilm al-kalām* ('The Last Steps in the Knowledge of kalām'), which reviews the achievements and limits of Ashʿarite theology.[33] Even though Mīrzā Ibrāhīm comes from an opposing discourse, namely Shiʿism, these witnesses mark a purposeful reaction to the latter's scholarly interests.

Another practitioner of number-letter science referred to by Mīrzā Ibrāhīm is Ṣāʾin al-Dīn ʿAlī b. Muḥammad Turka Iṣfahānī. He was a leading occult philosopher in Timurid Iran whose teachings on lettrism (*ʿilm al-ḥurūf*) inspired and supported ideological movements of the time. A one-page text by him, although anonymous, follows immediately after the esoteric number-letter table analysed above.[34] This text is part of the *Book of Inquiries* (*Kitāb al-Mafāḥiṣ*), Ibn Turka's major compilation on his universalist project, in which he defines principles that should be followed by authors who wish to make their writing more comprehensible.[35] The text surrounds a central illuminated medallion containing the chronogram mentioned above and highlights the closing sentence, which is a well-known statement attributed to ʿAlī b. Abī Ṭālib, the first of the Imams of Shiʿi Muslims: 'Knowledge is a point multiplied by the ignorant'.[36] While Imam ʿAlī's genius in arithmetic is explicitly praised elsewhere in the book,[37] Ibn Turka remains hidden, most likely due to political considerations. In Mīrzā Ibrāhīm's thinking, all these authorities were revealing parts of the true image of Pythagoras to varying degrees. He joins these pieces together to shape a single (albeit chaotic) narrative and exemplify his attitude towards (Neo-)Pythagoreanism. In addition to pedagogical purposes, the synopses served to emphasise the frequency and cruciality of arithmetic in scholarship. Mīrzā Ibrāhīm intended to convey to his audience that numbers are as informative as they are entertaining. It is from arithmetical language, he claims, that one can perceives the ubiquity and immanence of God and find the key to the puzzle of the world.

4. Number-letter sciences as legitimising instruments

The broad interest in number-letter sciences among Safavid scholars can be traced back to the pivotal role of lettrists' activities in the political life of early Timurid Iran. The Timurids – who ruled Persia and Central Asia in 771–913 H/1370–1507 CE – wielded lettrist doctrines as proof of their political and intellectual supremacy and religious legitimacy. The development of lettrism, or the science of letters, dates back to Hellenic thinkers. The idea is believed to have entered Islam under the auspices of a number of Shiʿi figures and later by the Sufis. To sanctify lettrism, they introduced it mainly as a part of *jafr* (letter divination)

30 Anna Izdebska highlights this dichotomy and explains the two different approaches to Pythagorean knowledge as philosophical (by *Ikhwān al-Ṣafāʾ*) and historical (by al-Shahrastānī); Izdebska 2016, 361–374, esp. 371–372.

31 Al-Shahrastānī, *Kitāb al-Milal wa-l-niḥal*, ed. Mahnā and Fāʿūr 1415 H/1995, vol. 2, 389–390.

32 For more discussions on al-Shahrastānī's accounts on Pythagorean knowledge, see Izdebska 2016, 365–371.

33 Although many of al-Shahrastānī's works imply that he was a Sunni Ashʿarī, some contemporaries accused him of secretly harbouring Ismāʿīlī beliefs. For more on his life and career, see Monnot 2012.

34 MS H, fol. 12a; for an edition and English translation of this excerpt entitled فحص حكمي في نظم نظري ('A Sapiential Inquiry in Rationalistic Terms'), see Melvin-Koushki 2012, 347–349, 354, 536–537, 541–542.

35 There is another occasion in which Mīrzā Ibrāhīm shows concern about letters and language and the need to preserve them from change. This text only appears in two copies of the *Lughaz-i marqūm* available to us (MS British Library, Or. 12974, fols 2a–9b, and the same folios in MS Süleymaniye Library, Ayasofya 4785). The opening statement concerns a discussion on the classification of sciences (*taqsīm al-ʿulūm*) compiled by Mīrzā Ibrāhīm as an introduction to the synopsis he was asked to provide for *Kitāb Asās al-iqtibās* by Naṣīr al-Dīn al-Ṭūsī (597–674 H/1201–1274 CE). He found it worth prefacing his work with a note on 'the createdness of letters, and the appearance of speech, and the difference between languages, and the circulation of the dialects, and the emergence of the arts' (*fī ḥudūth al-ḥurūf wa-ẓuhūr al-kalām wa-ikhtilāf al-alsina wa-tadwīn al-lughāt wa-khurūj al-ṣanāʿāt*).

36 This *ḥadīth* is recorded in a number of renowned Shiʿi books, including al-Shahīd al-Thānī, *Ḥaqāʾiq al-īmān*, ed. Rajāʾī 1409 H/1989, 167.

37 For instance, he is said to have suggested a novel solution to an algebraic problem (MS H, fol. 66a).

that the Shiʿi Imams inherited from the Prophet, and also linked it to the mysterious isolated letters in the Qurʾān known as *muqaṭṭaʿāt*.[38] Lettrism has been widely used in esoteric literature throughout Islamicate societies. However, its significance reached a peak in the Persianate world right after the Timurids rose to power. In the early years of Timur's reign (771–807 H/1370–1405 CE), a sect called *ḥurūfiyya* ('Ḥurūfīsm') emerged that was shaped around various esoteric doctrines, including lettrism. Faḍlallāh Astarābādī (740–796 H/1339–1394 CE), the founder of *Ḥurūfīsm*, was executed by a decree that Timur passed in 796 H/1394 CE and the group was suppressed by Timurid rulers. However, small-scale uprisings continued by Faḍlallāh's scattered followers, including a movement by his daughter and a certain Yūsuf in Tabriz. They attracted many adherents in various places, especially in Surkhāb, which became a new centre for *Ḥurūfīs*. The rebellion was speedily overthrown in the name of established religion, however, a large number of *Ḥurūfīs* were killed or burnt to death as heretics.[39] In the aftermath of this mass assassination, *Ḥurūfī* scholars avoided political activities and the promotion of their doctrines was mostly limited to Asia Minor. The intellectual appeal of lettrism nevertheless continued to grow, to the extent that it later served as the religious-political legitimation of the Timurid sovereigns.[40]

Being a learned scholar in Surkhāb, Mīrzā Ibrāhīm might have inherited a view according to which the number-letter science constituted a cultural and educational ideal. The bloody crackdown on *Ḥurūfīs* a few generations earlier could not have been erased easily from the memories of the scholarly community of his hometown. It does not seem an unreasonable conjecture to say that *Ḥurūfī* doctrines, although distorted, were probably transferred to later scholars as part of their local intellectual tradition.

To open a window to Mīrzā Ibrāhīm's scholarly agenda, we have located his interest in and contributions to numerical relations within the context of his socio-political activities. We argue that the intertwinement of unity and multiplicity constituted the centrepiece of his worldview, upon which he developed his own sense of singularity of knowledge. Mīrzā Ibrāhīm's pedagogical concerns provide added confirmation to our argument in favour of his universalist project. The endowment note for the mosque-school building sponsored by him in 1090 H/1679 CE contains detailed regulations on the stipends and responsibilities of the staff, teachers and students. He was not the only patron in his family; the deed of his brother's earlier endowments in the same city, although devoid of any such concerns, has also survived.[41] This distinction emphasises Mīrzā Ibrāhīm's special support for the teaching and learning of the sciences. His emphasis on the required books and school curriculum is worthy of attention. He recognises four groups of necessary books to be collected for the library in the complex of his mosque-school: Revealed Books (including the Qurʾān, Tora, Gospels and Psalms), books on Qurʾānic exegesis (*tafsīr*) and supplications (*adʿiyya*), books on rational/philosophical sciences (*ḥikmiyyāt*, including the mathematical sciences, natural sciences, metaphysics [*ilāhī*], theology [*kalāmiyyāt*] and medicine), and books on history, philology and poetry. He did not refer to a specific book, but stressed that his own oeuvre belonging to the last three categories should also be taught along with the other sources.[42]

Next, he prepared a syllabus for the sponsored students. Four compulsory courses were to be taught and learnt every day: literature, rational/philosophical sciences, Qurʾānic exegesis and jurisprudence (*fiqhiyyāt*). All four groups are exemplified by sets of branches of sciences. For the purpose of this paper, we shall focus on the second category: According to Mīrzā Ibrāhīm, the teaching of the rational/philosophical sciences begins with the mathematical sciences of arithmetic, geometry and astronomy respectively, which paves the way to study natural (*ṭabīʿī*) and metaphysical (*ilāhī*) sciences. Mīrzā Ibrāhīm's emphasis on the key role of mathematics, which was already known through Platonic teachings, is highly consistent with the pivotal task of numerical relations extending across the sciences in *Lughaz-i marqūm*. He calls this way of approaching the sciences 'the teaching method of truth-telling scholars' (*ṭarīq-i taʿlīm-i ḥukamā-yi ḥaqīqat shiʿār*). The opening folios of the two surviving manuscripts (MS British Library, Or. 12974 and MS Süleymaniye Library, Ayasofya 4785)

38 Twenty-nine *sūras* of the Qurʾān open with *muqaṭṭaʿāt* letters, the meanings of which have so far remained the subject of various interpretation within the Islamicate tradition.

39 See Mashkūr 1352 HS/1973, 696–699; Minorsky 2012.

40 Considerable studies have recently been conducted on the legitimation crisis in the Timurid period. See Melvin-Koushki 2012, 285–314; Binbaş 2014, 278, 300; Binbaş 2016, 15–21.

41 Mīrzā Muḥammad Ṣādiq, Mīrzā Ibrāhīm's (older?) brother, endowed a mosque and a school in Tabriz in 1075 H/1665 CE, during the reign of Shāh Sulaymān. According to the endowment deed, he was appointed as the vizier of Fārs in 1072 H/1662 CE. See Hāshimiyān 1393 HS/2014, 348. On the provincial positions of the two brothers, see Matthee 2012, 150.

42 Hāshimiyān 1393 HS/2014, 366.

include a tabular discussion on the classification of sciences (*taqsīm al-ʿulūm*) compiled by Mīrzā Ibrāhīm himself, in which the number-letter science[43] is designated a derivative mathematical science. There he confirms that what he means by letter expansions and numerical techniques is to be seen along the lines of Pythagorean examinations (*ʿalā manāhij tadqīqāt al-fīthāghūriyyīn*). In fact, the legitimising power of lettrism and specific beliefs in mathematics attributed to (Neo-)Pythagoreanism fused to create Mīrzā Ibrāhīm's universalist view of knowledge. Put differently, his treatment of the number-letter science agrees with the mathematisation of Pythagorean theory and at the same time distances itself from lettrist occultism and esotericism.[44]

The following is an attempt to reconstruct Mīrzā Ibrāhīm's image through the eyes of contemporary witnesses. As mentioned above, he was a renowned figure of his time who enjoyed the Safavid Court's patronage.[45] His position gave him the opportunity to expand his contacts to merchants and European travellers. The French merchant Jean Chardin (1643–1713 CE), who visited Tabriz in 1084 H/1673 CE, provides some interesting information about Mīrzā Ṭāhir, the eldest son of Mīrzā Ibrāhīm, in a written account of his travels.[46] During his visit, Mīrzā Ṭāhir, who carried out his father's duties in his absence, treated Chardin and bought some clocks and jewellery from him. Chardin describes him as a well-versed person and points out that he asked him patiently about the European news, particularly about the sciences and arts ('particulièrement pour les sciences et les arts'). He adds that Mīrzā Ṭāhir had written books in Arabic, Persian and Turkish and studied European philosophy and sciences ('la philosophie de nos écoles et toutes nos sciences') for several years with the help of a Catholic monk (Capucin). This report is further corroborated in an account by the Italian traveller, Giovanni Francesco Gemelli Careri (1651–1725 CE), a few years later in 1105 H/1694 CE when he met Mīrzā Ibrāhīm and his son in Tabriz[47]. Gemelli Careri, who introduces Mīrzā Ibrāhīm as a great lover of the sciences ('grande amatore delle scienze'), explains that he generously supported Capuchin Fathers by building a church and a convent in Tabriz where he and his son could be instructed by a French missionary, Father Gabriel of Chinon (d. 1668 CE). It has been said elsewhere that Father Gabriel's success in winning Mīrzā Ibrāhīm's support was owing to his knowledge of mathematics, whereas he failed to convert him to Christianity.[48]

Mīrzā Ibrāhīm's interest in institutional development is not limited to the above examples. There are traces of another endowed madrasa assigned to him in Urdūbād (in today's Republic of Azerbaijan), which no longer exists; we only know of its construction date in 1126 H/1714 CE through a chronogram surviving in a poem.[49] Khātūn Ābādī (d. 1105 H/1693 CE), Mīrzā Ibrāhīm's contemporary historian, also highlights the latter's involvement with numerous endowments and adds that he claimed to possess knowledge of various arts (*bi-funūnihā wa-aqsāmihā*). He then says in a sarcastic tone that this claim alone is a sign of Mīrzā Ibrāhīm's ignorance.[50] His criticism may reflect tensions between madrasa-educated scholars and powerful families whose sons often received exclusive private schooling.

5. Concluding remarks

Mīrzā Ibrāhīm's ambition to master a range of sciences has reached us from various sources and lines up well with his concern for the entirety of knowledge reflected in the *Lughaz-i marqūm*. To demonstrate the common features of the sciences, he propounds a global view on intrinsic unity:

43 Mīrzā Ibrāhīm's explanatory note on number-letter science in Arabic reads as follows: من متفرعات هذا الفن تكسيرات الحرفية والجفر الجامعة وتعديل الهياكل القدسية المشحونة بالأسماء الظاهرة والآيات الباهرة موافقة للمعادلات العددية والحرفية وسائر المناسبات الوضعية

44 Melvin-Koushki (2017) argues that the trend of mathematisation and sanctifying occult sciences in a bid to shift it from a natural to a mathematical status reached its pinnacle in the tenth century H/sixteenth century CE. He also maintains that this process influenced astronomical sciences in particular, and mathematics became more integral in the knowledge of astronomy.

45 Mīrzā Ibrāhīm's period in power saw both auspicious and inauspicious days. According to Jean Chardin, Mīrzā Ibrāhīm faced the anger and disrespect of the courtiers for a long time when it became known that he had bribed his way into the position of Grand *ṣadr* (the head of religious affairs); see Chardin 1671, 310–317. In contrast, though, a letter ordered by Shāh Sulṭān Ḥussayn in 1095 H/1684 CE addresses Mīrzā Ibrāhīm respectfully and honours him with a high-level position at court, viz. as *Mustawfī al-Mamālik*. See Naṣīrī, *Dastūr-i shahryārān*, ed. Naṣīrī Muqaddam 1373 HS/1994, 296.

46 See Chardin 1686, 298–299.

47 See Gemelli Careri 1708, 26.

48 See Eyriès 1816, 220. According to an account by the French traveler, Sieur Poullet (fl. *c.*1660 CE), the governor of Tabriz (whom he called 'Kam [Khān?] de Tauris') was on such friendly terms with Gabriel of Chinon that his children called him *Baba* ('Father'), but at the same time he persistently tried to convert Gabriel to Islam. Although Poullet does not mention the governor's name, it is most likely that he means Mīrzā Ibrāhīm. Sieur Poullet 1668, 273. For further information on Gabriel of Chinon's missionary life, see Cussen 2017, esp. 529.

49 See Jafariyan 1390 HS/2011, 14–34.

50 Khātūn Ābādī, *Waqāʾiʿ al-sinīn wa-l-aʿwām*, ed. Bihbūdī 1352 HS/1973, 547. Khātūn Ābādī gives 1102 H/1691 CE as the date of Mīrzā Ibrāhīm's death, which conflicts with the production date of the madrasa in Urdūbād and Gemelli Careri's report about meeting him in Tabriz.

since everything ultimately emanates from God, who lends it its existence and truth, an integration of the different aspects of reality is possible and desirable. Following the lead from Pythagoras, Mīrzā Ibrāhīm makes attempts to present the number one as a bridge between the One and many. He aims to develop a system that would reflect the unification of the sciences in which they fit together like pieces in a picture puzzle, each with their own function and design. An approach that explicitly assigns a crucial mediating role to the numerical sciences for understanding the complex relationship between multiplicity and unity.

In order to provide the means for holding the plurality of thoughts together, he takes inspiration from al-Shahrastānī, who treats the sciences in their historical context. Recognising only one group as the saved sect, this approach allows other opinions to be studied while preserving their otherness. Accordingly, misguided groups and their heretical contributions are likely to contain some elements of truth and only a reliable measure is needed for evaluation. The numerical sciences play the role of such a measure in Mīrzā Ibrāhīm's understanding of knowledge, which he owes to lettrists teachings. By offering a synthesis of the sciences in the language of numbers, he aspires to elicit a coherent picture of the immanence of God. Thus, a shorter path to knowledge is possible just as all numbers can be decomposed into a set of ones. While embracing many individuals in certain respects, from (Neo-)Pythagoreans to lettrists, Mīrzā Ibrāhīm was by no means a slavish follower of any of them. His belief in the singularity of knowledge allowed him to go beyond the received ideals of his educators and to pursue his own vision of the world.

Although we have reviewed a good deal of evidence of Mīrzā Ibrāhīm's friendly association with European travellers and missionaries who acknowledged his yearning to learn the sciences, the question of how much these relationships may have influenced his views has not been investigated in this paper and requires further research. Considering that one of the methods of Capuchins' preaching in Iran was to pay respect to Islamic values in order to encourage a reciprocal reverence,[51] and that Mīrzā Ibrāhīm was intent on keeping four Revealed Books in his library, the relevance of his inclination towards the unity of knowledge with his religious concerns warrants further investigation.

[51] Richard 1990.

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