



## Gregory of Nyssa and the Witch of Endor in the context of Machine Learning<sup>2</sup>

### Grzegorz z Nyssy i wróżka z Endor w kontekście uczenia maszynowego

**Key words:** Machine Learning, Exegesis, Gregory of Nyssa, Witch of Endor

**Słowa kluczowe:** uczenie maszynowe, egzegeza, Grzegorz z Nyssy, wróżka z Endor

#### Abstract

The following contribution is an experimental analysis of Gregory of Nyssa's exegetical qualities viewed by contemporary Artificial Intelligence. The article attempts to draw some general ideas from Machine Learning and to compare them with how Gregory approaches the text, enquiring as to what are his limits and what are his freedoms. We conclude that there are parallels between machine techniques and Gregory especially in his constraints and predetermination. Gregory struggles to produce an original exegesis because he set himself an *a priori* structure, which is in a way similar to how Machine Learning operates.

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The translation of Gregory is from McCambley, 1990.

## Streszczenie

Niniejszy artykuł stanowi eksperymentalną analizę cech egzegezy Grzegorza z Nyssy z punktu widzenia współczesnej sztucznej inteligencji. W artykule podjęto próbę zaczerpnięcia kilku ogólnych idei z zakresu uczenia maszynowego i porównania ich z podejściem Grzegorza do tekstu, zastanawiając się nad jego ograniczeniami i wolnością. Dochodzimy do wniosku, że istnieją paralele między technikami maszynowymi a Grzegorzem, zwłaszcza w zakresie jego ograniczeń i predeterminacji. Grzegorz ma trudności z stworzeniem oryginalnej egzegezy, ponieważ ustanowił sobie strukturę aprioryczną, która w pewien sposób przypomina sposób działania uczenia maszynowego.

## 1. Introduction

Gregory of Nyssa wrote a small enigmatic letter on the Old Testament story of the so-called Witch of Endor (1 Sam. 28:7), where king Saul brings back the prophet Samuel from the dead through a medium (Gregory of Nyssa 1863).

This Old Testament account has created a great conundrum for Christian commentators since it seemingly contradicts what the Biblical literature itself believes in. Here, the essential question is whether Samuel, or anybody for that matter, can be brought back from the dead for rather strange purposes and circumstances. The story seems to suggest that the Bible accepts necromancy. Even to this day great Christian authors are not in agreement as to the correct exegesis.

For example, Gregory of Nyssa argues against Origen, who believed that it was truly Samuel who was raised. Eustathius of Antioch (*De Engastrimytho*) also argues against Origen maintaining that it was only an apparition. Here the issue of allegorical exegesis is also at play. More modern commentators such as a certain Penrose from the Church of Latter-Day saints proposed that the Witch of Endor practiced necromancy, and that she had the power to communicate with the dead through a familiar spirit and that she was a spiritual medium (Penrose 1898, 497). Saul did not see Samuel but only the witch who described what

she saw (that is Samuel). Another line of interpretation appearing in the tradition is linked with ventriloquism (Connor 2000, 76).

Later denominational concerns also played a role. As Davies observes: “The refutation of ghosts and Purgatory as Catholic “superstition” was fundamental to Protestant theology and so the notion that Samuel’s spirit returned had to be repeatedly and adamantly dismissed. The souls of the dead did not return; it was all the “devious” Devil’s work. Indeed, in some late seventeenth-century anti-Catholic polemics the Witch of Endor was used to embody the Catholic Church” (Davies 2023, 4).

In our contribution we are not aiming to offer a correct interpretation. Instead, we would like to offer some parallels between how the theological tradition represented by Gregory of Nyssa struggles with the assessment or interpretation of a text, and how Machine Learning approaches a text. Machine Learning paradoxically addresses similar issues regarding a text as theology does. In the story of the Witch of Endor, theology is confronted with a situation where the authoritative text contradicts a different authoritative text, and therefore, the issue is of the validity of interpretation. Here the validity of “natural language” is at play. There is an interplay between the possibilities inherent in terminology and inherent in interpretation. Here theology encounters certain limits just as modern physics or Machine Learning encounters certain limits. However, we may agree with Heisenberg who suggested that theology and modern physics can find new ways of helping each other to break their inherent limits, just as the new physics redefined causality and simultaneity in the twentieth century (Heisenberg 1958).

Artificial Intelligence (AI) has various goals, including the goal of imitating how human beings think and assess problems and tasks. Machine Learning is a subbranch of Artificial Intelligence providing data and algorithms which help to establish how human beings think. Basically, Machine Learning operates on a trajectory – data input, algorithm, prediction/classification, pattern of data, error assessment or accuracy assessment and optimisation. Here we can find a similarity

with theological exegesis, which also operates on a trajectory- data input (authoritative text), interpretative algorithm (Holy Spirit as a principle of unpredictable interpretation), classification, pattern of data, interpretation based on a comparative textual and theological approach.

## **2. Do you know what you are looking for?**

In terms of exegesis, we approach a text either looking for answers to a given problem or we approach a text without expecting a concrete answer or interpretation, rather the text offers us an interpretation on its own. The first case would seem to correspond to the quote from the Gospel of Mathew which Gregory cites in his letter: [Christ] says to his disciples “Ask, and it will be given to you; seek, and you will find; knock, and it will be opened to you” (Mat. 7:7).

Any machine needs some data to be able to form a question. We may argue that this is like the human mind since to form a question, one must possess some previous information or data. In theological terms, however, there are instances of “revelation” where one receives an answer without necessarily having had any predisposition or knowledge beforehand. Abraham is an example of someone receiving revelation, without actively seeking it out. Further, he received revelation not necessarily building on previous structures, which is implied by the Promised Land, a place to be travelled to, to be discovered. Abraham is asked to ‘reboot’ his previous life to form new expectations.

In terms of the Biblical literature, one is struck by the indeterminacy of revelation. Here many forms of revelation go outside of the structures of what may be called predetermined data. The human being is often left in a position of awe of something unexpected. In contrast, any form of Artificial Intelligence, or data processing is always predetermined by the “available material.” In this context, one may recall the quote from the Old Testament book of Isaiah: “And He said, “Go and tell this people: “Keep on hearing, but do not understand; Keep on seeing, but do not perceive” (Isa. 6:9). Here God tells his people that all the structural

information used by the people can be flawed or misunderstood.

There is a difference between knowledge, data and wisdom. For data to be something more than mere fact it needs to be interacted with. Data itself in a way is the result of communication or more generally action. Data can provoke a desire for more data. Without data we cannot communicate or interpret. For theology or Machine Learning the relationship between static data (understood as a mere fact) and interaction is a complex problem. The standard definitions of data or knowledge do not offer answers as to the mechanics of how data relates to interaction. In the Oxford dictionary we read that data is: “A collection of facts or organized information, usually the results of observation, experience, or experiment, or a set of premises from which conclusions may be drawn. Data may consist of numbers, words, or images...” (“Data” nd.). Here the definition of knowledge can consist of the following related to its result: “Knowledge is power” - a proverbial saying from the late 16<sup>th</sup> century; originally from the English lawyer and courtier Francis Bacon (1561-1626), and echoing the biblical quote that “a man of knowledge increaseth strength (Prov. 24:5)” (“Knowledge” nd.).

Since there is an indefinable space between data/information and manipulation of this data, this can occasion the necessity for interpretation or exegesis. Exegesis or any interpretation is the consequence of an obvious but also less or non-obvious link between sets of data. A computer needs to manage data according to a key. For the latter to be able to comprehend any data there must be an “unshakable” correspondence between data and its possible meaning. For theology less so. This, however, can limit the machine to a static observer and to predetermined processes. Artificial Intelligence must create its environment with which to interact. In the story of the Witch of Endor, standard theology is confronted with a story that does not fit into the matrix which is assumed (the dead are not raised). Theology must develop relational data based on its set of information (Kara *et al.* 2021, 161).

If data has various interpretative signifiers depending on its relation, then it necessitates a dynamic concept. However, the “relativity” of data is a concept the human mind struggles with. The Witch of Endor presents a situation when the data at hand does not offer immediate correspondence with a clear-cut meaning. Here we may enquire whether the similarity of one kind or another between the various data sets does not occasion the association itself. Similar concerns appear in cognitive theory, providing association by juxtaposition or fusion (Kounios *et. al.* 2001, 297).

Exegesis depends on connection and association. The development of the World Wide Web is largely dependent on connecting structures, on learning from past data. Past choices enable the World Wide Web to develop and to expand. The more it expands, the more choices and data it offers for future and further expansion. The past choices further enable classification. Exegesis, however, can move beyond the text so to speak. It can form an interpretation radically different from the obvious associative structures. This is the case with Gregory’s interpretation who moves beyond the “obvious” associative structures.

In explaining the Witch of Endor story, Gregory struggles with maintaining associations with the Biblical record while at the same time creating a new structure, which departs from its context. Even if Gregory is convinced that he is not departing from the textual tradition, he is in fact creating a new structure. A similar process can occur in data analysis. Data analysis can create a profile of one’s interests based on his or her choices. If a new choice appears which is not related to these past choices a new structural profile emerges. However, just as with Gregory so data analysis tends to be conservative, and the profile actually limits the possibilities that someone will act in essentially a new way.

In terms of Gregory, we may enquire just as with data analysis whether an interpretation based on the confines of the tradition or text does not limit the exegetical possibilities. Gregory struggles to offer an interpretation based on the “Christian possibilities,” but the text invites

him to go beyond these. Gregory, however, does not want to go beyond the possibilities of the tradition and text, and limits the goals of the text by his own external conditioning. Here Gregory, just as the K-nearest neighbour algorithm uses proximity of meanings to build his interpretation. In the same way, the basic K-nearest neighbour algorithm in its most basic form finds commonality between terms, symbols etc., based on the proximity and therefore similarity or dissimilarity of content. Gregory sets out his limitations by claiming that it is necessary to follow the correct path, that all who follow the correct path will find results. Not just any search, but a diligent search, a correct path or, if we may say so, a Biblical algorithm. „That is, he will reveal himself both to persons who are engaged in a diligent search in accord with his command, and to those persons who are seeking (faiths) hidden mysteries“ (Gregory of Nyssa in McCambley 1990, 134). That is, we can imply that if you follow set rules, you will necessarily arrive at a “correct” answer. That is a kind of “supervised learning” method. Here theology works in a similar way to Machine Learning, in the sense that it analyses human experience (what may be termed data) to learn from this experience and suggest a correct future path. However, in Christian thought, there is an “eschatological” viewpoint in that one must aspire to avoid the mistakes (sins) of the past even if his or her experience is based on the past.

Machine Learning of course, can never fall into the same mistake from the past if it identifies this mistake as a “mistake.” Mistakes are rectified and learned from, and the machine moves on. The human being, however, tends to fall repeatedly into the same mistake. The machine learns and moves on; however, the human being learns but potentially falls again.

We may compare exegesis with Web Crawling, where similarly to the exegete, the Web Crawlers are given a goal at the outset. Gregory’s criteria are that a solution must be based on the premise that the dead cannot be brought back. Similarly to Web Crawlers, the theologian stores information and criteria, for future theological reflection (indexing).

The unpredictability of the future is an essential trait of Gregory's theology as for the patristic tradition itself. The future is a mystery since God is unsurmountable. Searching for data and understanding this data or trying to understand Gods revelation (which in a sense is „data“) basically implies the necessity of an interpretative key, which can be Christ or an „algorithm“ which helps us to unlock the mysteries or meanings. Here Christ is the exegetical principle. Christ combined with the paradoxical „contradictions“ of the set text is the methodological criterion of Gregory. There is also a difference between Machine Learning and theology, since theology believes that only at some point in the future, will we be able to gain a completely objective view of the present and past (Second Coming of Christ). Understanding the present by reference to both the past and future is something beyond simple machine logic.

Here, the traditional probability theory can play a role but only a limited one since theological eschatology emphasises the totality of information from the past, present and future which is impossible for mathematics to compute. Here even the acknowledgement of standard randomness is not helpful, since the issue is not only our inability to predict outcomes of existing possibilities, but the challenge is to go even beyond these. Scientists use chance, or randomness, to mean that when physical causes can result in any of several outcomes, we cannot predict what the outcome will be in any particular case (Futuyama 2005, 225). Here the model of the Frequentist approach in basic mathematics deals with frequency of occurrences to reach an overall conclusion on the frequency or probability of the outcome. Here specifically, it would mean that the more we sin the more probable would be our inability to see truth and therefore understand. The outcome of sin determining further frequency of sin.

For theologians such as Gregory, outright knowledge/data is no guarantee of understanding. Here using Christ as the “past, present and future criterion” he leaves himself space for exegetical manoeuvring. Due to Christ and moral criteria of the exegete there is a stochastic



theology operating. Gregory emphasises this when he quotes from First and Second Timothy. “Therefore, Attend to reading, Timothy, my son” (1 Tim. 4:13). I believe it is appropriate to speak of your goodness using the great apostle Paul’s words in order that the Lord may bestow upon you understanding in all things (2 Tim. 2:7). Obviously, data is not self-explanatory, there must be an interpretation between the lines, and this does not rely on the logic of the data itself. The search beyond the simple meaning of data is called “hardship” in Christ. Further 2 Timothy 7 implies that following the rules brings an “adequate” result. However, these rules are not just the simple data available, to be read in this life, rather they something higher given by God (2 Tim. 4-7).

While the machine must trust its data (whether illusionary or not it is still data), the theologian is never sure about the data, due to the compulsory spiritual prism he needs in reading it. From a patristic point of view, this inability to be sure about data and its meaning is the result of a previous and continuous sin. Gregory is not sure about the data at hand - whether the apparition brought about by the witch is real or not. Christological eyes are needed to sift through it. However, even following the rules does not automatically mean one receives the key, what is needed is “grace,” which is really never deserved. Gregory notes this when he says: “In this fashion you will be rich in every word and in all knowledge (1 Cor. 1:5).” Here 1 Corinthians states: “I thank my God always concerning you for the grace of God which was given to you by Christ Jesus, that you were enriched in everything by Him in all utterance and all knowledge, even as the testimony of Christ was confirmed in you” (1 Cor. 1:4-6). As we can see, the data path is corrected or calibrated by further knowledge offered by Christ. The indeterminacy of the information is stressed by the word “grace.” Grace in this case is a kind of unexpected sequence of unpredictable freedom relying on past experiences but not necessarily limited by them. Grace can be linked with repentance - the latter being a liberation from determinative self-categories.

Even in other areas of enquiry the idea of the goal can form the path even if incorrect. Bartlett's thoughts seem appropriate in this context: "Also, when one is finding one's way through an unknown city, or by compass through the deep woods or at sea, one has a continual awareness of the supposed direction (1) of the goal and (2) of the earlier route, though the apparent direction of either may be quite wrong. There are indications in both animal and human behaviour that learning depends on setting up of a unification of the total situation even when it cannot be surveyed as a whole. It is not necessary for the learning that an accurate picture of the situation be achieved, only that the goal-concept dominate the phase sequence corresponding to a correct run reliably evoke the next complex, with the resultant recognition of the direction of the next choice point" (Bartlett 1932, 192).

Gregory's interpretation is, in a sense, constrained, neglecting the liberatory power of love. In our story, the interesting fact is that the prophet Samuel appears to Saul apparently as an act of condescension, he himself breaks the restraints of the "law." Here we may add and speculate that this act is, in a way, an act of love, love which is the primary characteristic of Christ-the exegetic principle. Paradoxically, if we follow Origen's meditation on his belief that it was truly Samuel who appeared, this would be more in line with the possibilities offered through Christ's Resurrection. In other words here an example of a person raised from the dead.

Gregory builds his argument referring to the Gospel story about the chasm (Luke 16: 26). The Gospel chasm is something which apparently cannot be crossed either by sinners or saints, the chasm therefore related to something beyond simple moral or spiritual categories. Here, it is as if Gregory cannot go beyond the chasm of proper textual meaning and interpretation. According to Gregory, it is the devil who falsely claims to have crossed the chasm. Here there is little space left for love in Gregory's interpretation.

The desire to know the future can be linked with the work of the devil. The devil pushes us into the future seeking answers and personifying them. Perhaps Gregory intends to state that knowledge of the future is dependent on our reflection of our past, it requires a state of repentance. Similarly, search engines linked with product marketing aim to predict future customer preferences based on past searches. Search engines and Web Crawlers in a way limit our preferences since they usually “offer” us products based on our previous choices paradoxically limiting our future choices. Foretelling the future in a positive way can entail a struggle to liberate oneself from one’s matrix, but as we have seen it is not accepted. In any event, issues linked with community and love perhaps played a role in the intentions of Saul. Gregory implies this by saying that “Therefore when Saul despaired at being saved from the alien tribes arrayed against him, he sought deliverance from Samuel (1 Sam. 28:4-5).”

Gregory realises that the community is at the centre together with love but struggles with the idea of fortune telling and so on. He explains that “Persons who are pre-occupied with the body and who want knowledge of the future, means by which they hope to escape evil or follow pleasure, are unmindful of God.” But then Gregory writes: “...In this way you may learn that we are to serve each other through love and by carrying out each other’s will.”

Gregory identifies the devil as speaking with the sorceress. The devil is behind the apparition. The image cannot be real it is artificial and this is because *apriori* the reality of the apparition is not acceptable. The machine similarly can reject the “reality” of a signifier or symbol based on *apriori* conceptions. Data sources deemed as “true.” Gregory here limits himself just as a machine would. Even if he offers a Christological prism, he limits its freedom in advance. Concerns for community and love (presumably concerns at least partly true for Samuel’s reflection) are jettisoned in sacrifice for the “correct” interpretation of the text. Gregory, even if he decides to depart from the literal meaning of the

text, in fact does not use the theological cards available to him – love, community to offer a broader ethical context.

The exegetical imagination, however, should go beyond set data and cannot assume that all the possibilities are available at the same time for analysis. Rather the set possibility creates an imaginative framework for future unpredictable possibilities. It is a kind of recurrent algorithm. Here “recurrent property of the algorithm means that it is based on processing objects (images) one by one, depending on availability (unlike noncurrent algorithms that need to have all the objects in the memory to process them).” (Fradkov 2020, 1386). In a way, Gregory contradicts what he is stating: “How can servility to the letter of the text concur with the record of history? If Samuel is truly a vision, the sorcerer indeed sees gods. Scripture says of demons who are gods, “All the gods of the nations are demons” (Ps. 96:5).

The story of Saul and Samuel (1 Sam. 28) offers material itself for a broader reflection and exegesis rather than concentrating on the witch itself. In this story, Saul is in trouble, and David seems to become the favourite in the eyes of God instead of Saul. Later after losing a battle, Saul decides to bring from the dead a medium that is the now deceased Samuel (at En Dor), (1 Sam. 28). The argument is that Saul did not realise his past wrongdoings. He does not know why he is in the particular situation and attempts (here viewed negatively) to reverse the flow of things calling a medium. The book of Samuel states: “Now Samuel said to Saul, “Why have you disturbed me by bringing me up?” And Saul answered, “I am deeply distressed... Therefore, I have called you, that you may reveal to me what I should do. Then Samuel said: “So why do you ask me, seeing the Lord has departed from you and has become your enemy?... (1 Sam. 28:15-17).

In terms of data processing, this situation can be assessed as a negative search result and a return to the previous indexed stratum of information. Saul misinterpreted his past behaviour and must reassess things. However, it is not possible to do so since his past situation has

for ever conserved the current situation. After setting the path and line of interpretation, Gregory sets the stage for analysis. He is implying that there are various possibilities or answers or paths which lead to false results. Gregory rejects the truthfulness of Samuel being brought instead arguing that it is a figure of speech. Thus, he argues that past decisions determine the present and this is irreversible. This irreversibility is argued based on other “premises” (here against mediums, witchcraft / Lev. 19:31, Isa. 7:10, 7:16 and Isa. 65:4).

Gregory presumes that all that went before clearly shows that there is zero likelihood of the apparition being true. There is a combination of what may be called the stochastic and determinate process (Taylor, Karlin 1998, 2).

In theological terms, interestingly enough, Gregory supports his argument of “irreversibility” by referring to the story of Abraham and the chasm, where it is difficult for the living to cross to the area of the dead. Here Gregory does not allow the Old Testament to speak for itself but solely understands it in terms of the New Testament. To use statistical terms, we may say that the probability is zero for the apparition to be true. Here an important secondary concept emerges. The future (New Testament) negates the past (Old Testament), thereby producing a new data set.

Another principle is brought in by Gregory emphasising that Samuel felt pity for Saul regardless. David is deemed more worthy, since he is linked with a better role in the community.

The fascinating thing about the entire endeavour of Gregory is that he himself sets the goal at the outset of a preconceived predetermined interpretation regardless of the data. He does not allow for any freedom in the “site.” He has an *apriori* belief, that in fact Samuel could not have appeared literally. And this limits and determines his overall interpretation. Gregory limits the possibility of a “surprise” or “degree of surprise” inherent in a situation (Bishop 1995, 243).

However, at the same time he allows for a departure from a literal interpretation. He writes: "We have learned that scripture frequently relates something apparent instead of that which is real." Further he writes: "As for sacrifices, you may find information by more carefully examining the book of Leviticus in its entirety and by attending to the law contained there. Thus, you may comprehend the part [of the text] along with the whole, for a part cannot be clearly distinguished apart from the entire text."

In the end, the Biblical story transcends itself and the barriers of interpretation. Regardless of the characteristic of the medium or its interpretation, the main goal is the communication of a message. There is a danger of losing focus from the moral and goal of the story, which is to show the depravity of Saul rather than issues related to Samuel or the witch.

Gregory does not focus on Saul but rather on the witch, preferring to limit interpretation to terminological issues (here especially the witch). This limits the contextuality of language and ignores the more comprehensive role of language and its functions an essentially limitless understanding of the possibilities of expression (Landgraf *et al.* 2011). This terminological limitation, however, goes on with unexpected Biblical examples mentioned by Gregory, which appear strange in his construction. Mentioning Elias (1 Kgs. 17:4), he recounts. "If bread is brought to him early in the morning and meat in the evening, this example mysteriously symbolizes enthusiasm for the virtuous life. We should consider early morning as pertaining to the commencement of a life according to virtue. We can thus easily understand Paul when he speaks of something more perfect which is held in store for those who are perfect: "solid food is for the perfect, or those who have their faculties exercised" (Heb. 5:14)." Presumably, this story is a justification for Gregory and for his interpretation, since obviously according to him "one must go beyond the text," and this is for those "prepared." On the other hand, however, Gregory stresses that we should believe in

the literal sense since obviously the Scripture does “not believe” in the reality of the “apparition.”

Gregory is limited by his structural flow, which is also a problem for Web Crawlers. He cannot return and reassess his initial premise or its falsity or truth because his conclusions have already closed this road. He can only continue building on the initial premises. His premise is that the vision was not a real vision of the person but was a delusion and this cannot change since he is continuing in the direction of this premise. The conclusions obviously cannot change the premise since they are structured by the premise. Paradoxically, the exegetical authors allowing for a broader freer interpretation of the vision as a real manifestation allow for the story to present its intrinsic dynamics based on its intrinsic elements.

On the other hand, Gregory, by limiting *apriori* the story’s worth by disregarding its truth or intrinsic value, utilises an artificial pattern, which *apriori* classifies into a preset moral and theological paradigm (here the impossibility of a dead person being brought back to the life). This limits the freedom of the text and its content; thus, the interpretation departs from its source and is artificial, creating a rupture between content and form. Gregory posits a form of supervised learning (providing set data). As in pattern recognitions, this can create pre-set elements for pattern recognition (Bishop 1995, 1).

The story of the witch can be related to the issue of sense perception as reality. Even if Gregory believes that Samuel is not real, he is real for Saul. The paradox here is that Gregory argues that on the one hand there was trickery involved, and on the other, that even if this was trickery, it is real in the sense of it having evil consequences. Even if the devil supports trickery, it is real in the consequences it has or can have. Gregory does not explore the inherent connection between thoughts and senses, and their purport on reality even if constructed. Other thinkers contemplated this issue. The mathematician Pierce wrote: “I only desire to point out how impossible it is that we should have an idea in

our minds which relates to anything but conceived sensible effects of things” (Pierce 2014, 303).

### 3. Conclusions

Gregory of Nysa’s little treatise which we have analysed offers us a testimony of how a patristic authority and theologian struggles to offer a balanced exegesis of complex or apparently self-contradictory texts. We have compared some of Gregory’s exegetical methods with how contemporary Artificial Intelligence and Machine Learning interprets texts. Basically, any analysis of texts by Artificial Intelligence is in a way an “exegesis” - an interpretation. This is so since machines mostly perform interpretations, associations based on predetermined tasks.

Here the important feature of Machine Learning is causal determinism, which can paradoxically preclude “rational,” “logical” or other interpretations. Contemporary Artificial Intelligence endeavours seek to construct a machine that could assess and reassess its own predetermined variables or conclusions based on newly received facts, without running the risk of false conclusions or premises. In other words, to create a machine which would be independent and free without the necessity of receiving data sets to form its own conclusions.

A Biblical exegete such as Gregory is also restrained by preset data: in this case by the Bible and its message. The Bible seems to suggest one opinion while apparently negating this opinion elsewhere in its own texts. Gregory must find a way to answer this “illogical” situation and at the same time answer a query of his own. Gregory’s position is further complicated by the fact, as he states, that the Gospel is the overriding interpretative principle “Only the Gospel should be trusted.” Gregory must explain how it is possible that the Old Testament text contradicts itself. Similar situations are also assessed by machines who analyse texts.

Gregory is further restrained (like a machine) by rhetorical and literary canons (Wagner 2025). This is like setting linguistic and mathematical forms and algorithms in Artificial Intelligence. His own handling



of the text and its seeming contradictions leads to a cyclical exegesis, which is premise A leads to a conclusion B. But because a new “fact” C contradicts conclusion B, (but also in cases premise A) this leads to the necessity of reinterpreting either A or B. This reinterpretation must agree with the new fact C. This in contrast to linear exegesis where A leads to B leads to C leads to D on a causal linear platform.

In order to avoid his own pre determinist conundrums, Gregory combines allegorical and literal exegesis coupled with the Pauline idea of pedagogical revelation (revelation according to “preparedness” or “purification”). Part of the result of this effort is the emphasis on a variable here the “Devil” as a referential principle of deducted identity. The Devil is a variable/an objective yet at the same time subjective principle. Gregory uses a scriptural quote to establish his case for the variable / demon “All the gods of the nations are demons” (Ps. 96:5).

Because Gregory allows premises and preset data to determine his meaning, he cannot accept alternative meanings stemming from the “totality” of the texts or the contextuality of the text. For example, he does not utilise the general meanings such as “love,” or “community” as the guiding principle of the exegesis. These meanings have been suggested by the patristic writer Origen and other writers. In terms of Artificial intelligence, set data can also offer false readings in the overall picture.

Gregory rejects “servility to the letter of the text” yet is more than happy to be servile and is restrained by the text according to his understanding of it. Gregory further, does not elaborate on what we may term as neuropsychological aspects of the story. Regardless of what the witch or Saul saw, the fact is that their belief had “real” consequences. In the same way, we can act on an illusion which can have tragic or positive consequences. There is association (Samuel related to the demon etc.) and therefore identity. As Hebb has observed: “*Identity* is defined here as referring to the properties of association inherent in a perception. The reference has two aspects: first, a figure is perceived as having identity when it seems immediately as similar to some figures and dissimilar to

others -that is, when it (figure) falls at once into certain categories and not onto others. This similarity can be summed up as spontaneous association since it may occur in the first exposure to the stimulus object." "Secondly, the object that is perceived as having identity is capable of being associated readily with other objects or with some action, whereas the one that does not have identity is recalled with great difficulty or not at all, and is not recognized or named easily." (Hebb 1949, 26). Here the author Hebb touches on association and relationality which goes beyond basic identifications, in other words making things "real" based not on their own subjective revelatory significance and factuality but in their association and relations.

A key principle appearing in patristic exegesis, which helps in exegetical problems is the principle of the foundational indeterminacy of "fact." Exegesis ideally can never be sure of the correct interpretation. Just as there is never a perfect correspondence between the signified and the significance. Gregory also uses this principle and refers to the Apostle Paul's 1. Corinthians 3:13, which states: "each one's work will become clear; for the Day will declare it, because it will be revealed by fire; and the fire will test each one's work, of what sort it is." Our knowledge is limited until "God" makes his revelation.

Similarly, John Chrysostom in his Homily 34 on First Corinthians contemplates the idea of full revelation and the relative value of knowledge.

...Wherefore also he said, "*Then shall I know, even as also I am known*" For this reason, if you mark it, that you might not suppose this to be done away equally with prophecy and the tongues, having said, "*Whether there be knowledge, it shall be done away*", he was not silent, but added also the manner of its vanishing away, immediately subjoining, saying, "*We know in part, and we prophesy in part. But when that which is perfect has come, that that which is in part shall be done away*" (John Chrysostom 1889).

If we further compare Gregory with some general principles of Machine Learning, we can ask the fundamental question whether the machine

would offer a systematically structured exegesis. Here the predetermined structural categories would put the machine into the same position as Gregory. The machine would assume that the Biblical text itself is the only possible starting point together with its “meaning” here including its “contradictions.”

The terms and set text would limit the possible “interpretations.” However, Machine Learning would, just as Gregory, realise that the Bible can at least at first glance contradict itself and that what is required are new methods of interpretation to avoid contradiction. The only way to grapple with this is to assume an “indeterminacy” of terms and texts, meaning that neither terms, or sentences have a definite enclosed meaning. A contextual approach would be needed, which is possible to argue, but would fall short just as perhaps Gregory’s interpretation falls short of true logical “contextualisation.” Terms would have multiple inordinate meanings. “Demon” would mean many things, just as Samuel (in his revelation to Saul for example) is not actually Samuel. This presents a problem for Machine assessment.

However, a contextual interpretation is indeed possible in Machine Learning. Here contextual essentially means a fluid definition of signs and codes. Similarly to theological considerations, these contextual methods can be directed by a general principle, such as “love” and so on. However, any symbol, sign, term in this sense can gain its meaning only through relationship. Identifying the various possibilities or endless possibilities of relations between terms and signs requires a key or keys. Gregory brings in interpretative keys but also makes sure that he is not confined to just one particular key even if valid or true thus offering himself a more general freedom. In other words stressing that true objectivity will be revealed in the Eschatological framework. Gregory’s recourse to “indeterminacy” can be understood as the surrender towards the ambiguities of the text.

A greater contextualisation in Artificial Intelligence is now being developed in the field of Neural Networks. In terms of Machine Learning,

a possible structured framework can be associated with Neural Networks, where a network is a good starting point to assess the possible meanings of signs or codes, or terms.

The “Neural Networks” here can be a product of various nodes and their different connections. Different relations between neural nodes can lead to different interpretations, in turn offering “contextuality.” The machine can offer an entire neural interpretative system. Needless to say, Neural Networks are built on the model of the human brain.

Gregory fails in his interpretation because of the lack of comprehensive contextuality. Similarly, Artificial Intelligence can also fail. In both cases not because of false data or algorithmic fallacy, but because of the nature of relationality itself. Gregory solves this relationality partially by a referral to an outside principal, namely “God” - the third computational possibility of textual relativity. At this point, the Machine must also create its God (principle of freedom from determination) to avoid its own pitfalls.

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