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Cover

Mašhad, Kitābḫāna-i Āsitān-i Quds-i Raḍawī 300, f. 1v; Paris, Bibliothèque nationale de France, *grec* 1853, f. 186v

Where is Maimonides' Logic?

Josef Stern*

Abstract

This paper argues that scholars interested in Maimonides' mastery and creative use of logic, and in his original contributions to the subject, should explore his *Guide of the Perplexed* (in Arabic, *Dalālat al-Ḥaʾirīn* and, in Hebrew, *Moreh Nevukhim*) rather than, or in addition to, his *Treatise on the Art of Logic* (in Arabic, *Maqāla fī ṣinaʿat al-manṭiq* and, in Hebrew, *Millot Ha-higgayon*) on which previous research has exclusively focused. I support this hypothesis through a close analysis of Maimonides' account of (propositional) attribution (or what we would call 'predication') as part of his analysis of divine attributes, showing both Al-Fārābī's Aristotelian influence and the ways in which Maimonides departs from his predecessor. In particular, I argue that Maimonides analyzes affirmative attributes in external speech as categorial negations of privations in inner speech which he takes to be better than the former but nonetheless false because of their composite logical syntax which misrepresents God's unity. Second, he rejects indefinite nouns (which had been proposed by Al-Fārābī as a preferred way of describing the deity). Finally, I show how he distinguishes the one name of God, the *Tetragrammaton*, from descriptions of God (e.g., 'The Just') which are built up out of propositional components that suffer from the same composite syntactic representational structure as affirmative and negated attributive propositions. More generally, the paper highlights Maimonides' al-Fārābīan conception of logic as a theory of form or syntax and his sensitivity to metaphysical presuppositions of logical analyses.

Almost all scholars would answer the question in the title of this paper by citing Maimonides' *Maqāla fī ṣinaʿat al-manṭiq*, *The Treatise on the Art of Logic*, in Hebrew, *Millot Ha-higgayon*, — and almost all scholarship on Maimonides' logic focuses on this little treatise, an introduction to Arabic Aristotelian logic, influenced by Al-Fārābī whom Maimonides praises although, as we shall see, that is not to say that he does not criticize him.[1] In recent years, the Maimonidean authorship of this little book has been challenged, but I will not enter that controversy here.[2] Even if Maimonides is not its author, he would have known and endorsed most of its elementary contents.

[1] Maimonides, *Treatise on the Art of Logic*, trans. and ed. I. Efros, *Proceedings of the American Academy of Jewish Research* 8 (1937-1938), pp.1-65 (English), pp. 1-136 (Hebrew); "Maimonides' Arabic Treatise on Logic", *Proceedings of the American Academy of Jewish Research* 34 (1966), English Intro.: pp. 155-160; Arabic: pp. 1-42. For Maimonides' praise of al-Fārābī as a logician, see A. Marx, "Texts By and About Maimonides", *Jewish Quarterly Review* N.S. XXV (1935), pp. 371-428.

[2] See H. A. Davidson, "The Authenticity of Works Attributed to Maimonides", in E. Fleischer *et al.* (eds.), *Meʾah Sheʿarim: Studies in Medieval Jewish Spiritual Life in Memory of Isadore Twersky*, Magnes Press, Jerusalem, 2001, pp. 111-33; A. Hasnawy, "Reflexions sur la Terminologie Logique de Maimonide et son Contexte Fārābīen: Le *Guide des Egarés* et le *Traité de Logique*", in T. Levy – R. Rashed (eds.), *Maîmonide: Perspectives arabe, hébraique, latine*, Peeters, Louvain 2004, pp. 39-78; S. Stroumsa, *Maimonides in His World*, Princeton, NJ, Princeton U.P., 2009, pp. 126-8.

More surprising is how little attention scholarship has paid to the subject of logic in Maimonides' other works. In this paper, I explore what I propose is original work in logic, connected to the philosophy of language, in the *Guide of the Perplexed* (in Arabic, *Dalālat al-Ḥa'irīn* and, in Hebrew, *Moreh Nevukhim*). Through this case study, I hope to convince you of the potential fruitfulness of the hypothesis that Maimonides' real contributions to logic and language should be sought in the *Guide*.

Like the natural and divine sciences, so for logic: Maimonides says that the *Guide* will not give a "summary" or "epitome" or investigate its "true reality (…) because the books composed concerning these notions are adequate".[3] In the opening *Epistle* to his addressee, Joseph b. Judah ibn Simeon, he reports that Joseph has "read under [his] guidance texts dealing with the art of logic" (*Guide*, Introduction, p. 3). In short, Maimonides presumes basic familiarity with twelfth century Aristotelian logic as it was known in the Islamicate world and pursues specific topics in logic only where they will be a "key to the understanding of something to be found in the books of prophecy, (…) [their] parables and secrets". (*Guide* II, 3, p. 254) I will focus today on Maimonides' use of logic in his analysis of divine attributes and names. However, Maimonides shows his own original views on logical topics such as modality; demonstration, proof, and certainty; and equivocation in his explanation of other "secrets of the law" such as the creation/eternity dispute, the existence of God, and the certainty of prophecy.[4]

The first part of Maimonides' *Guide* opens with the interpretation of problematic individual corporeal terms applied to God. He then turns to systemic semantic problems for all divine language in chs. 50-60. Two Al-Fārābīan themes shape this largely self-contained unit. The first is the distinction between external speech, "the notion that is uttered", and inner speech, "the notion that is represented [taṣawwur] in the soul" (*Guide* I, 50, p. 111), which ultimately derives from Aristotle's tripartite distinction between inscriptions that "symbolize" utterances that, in turn, "are signs of" "traces in the soul" that, finally, are "likenesses" of extra-mental entities in the external world (Arist., *De Int.* 16 a 5-8).[5] Al-Fārābī elaborates this distinction in two directions that decisively influenced Maimonides. First, he expands Aristotle's individual "traces in the soul" to include the full range of mental representations, simple and composite, the totality of which he conceives as a language of inner speech which is ontologically distinct but methodologically inseparable from the utterances and inscriptions of external speech. For the conduct of science, both Al-Fārābī and Maimonides take inner speech to be superior to

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[3]   Maimonides, *Dalālat al-Ḥa'irīn*, ed. S. Munk – I. Joel, Azrieli, Jerusalem 1929; *The Guide of the Perplexed*, trans. Sh. Pines, Univ. of Chicago Press, Chicago 1963, (Part) II: (Chapter 2), p. 253. All English quotations are from the Pines translation cited as *Guide* Part and Chapter, following the quotation in parentheses.

[4]   On modality, see J. Stern, "Maimonides' Modalities", in D. Frank – A. Segal (eds.), *Maimonides's Guide of the Perplexed: A Critical Guide*, Cambridge U.P., Cambridge 2021, pp. 184-205; on demonstration, see J. Stern "Maimonides' Demonstrations: Principles and Practice", *Medieval Philosophy and Theology* 10 (2001), pp. 47-84 and J. Stern, *The Matter and Form of Maimonides' Guide*, Harvard U.P., Cambridge MA 2013), pp. 132-90; on certainty, Ch. Manekin, "Maimonides And the Arabic Aristotelian Tradition of Epistemology", in D.M. Freidenreich – M. Goldstein (eds.), *Beyond Religious Borders: Interaction and Intellectual Exchange in the Medieval Islamic World*, Univ. of Pennsylvania Press, Philadelphia PA 2011, pp. 78-95, and J. Stern, "Maimonides, the *Falāsifa*, and the *Kalam* on Certainty and the Certainty of Prophecy", ms. Some of the material in the present paper is drawn from Stern, *Matter*, pp. 193-227.

[5]   On the complicated history of interpretation of this passage, see N. Kretzmann, "Aristotle on Spoken Sound Significant by Convention", in ed. J. Corcoran, *Ancient Logic and its Modern Interpretations*, Dordrecht, Holland, Reidel 1974, pp. 3-21.

external speech whose representations are muddled by the imagination.[6] The domain of logic, in turn, is constituted by the regimented representations of inner speech and it is concerned with external speech, its only access to inner speech, only insofar as it is the expression in words of the inner representations.[7] The philosopher's task is to translate the inferentially misleading constructions of external speech into the logically more perspicuous representations of inner speech. Maimonides' most ambitious attempt to carry out this project is his account of divine attributes and, in particular, his regimentation of affirmative attributions to God in external speech into inner speech representations that feature negations of privations.

The second Al-Fārābī'an theme is that logic focuses on the form [*ta'līf*, *tarkīb*; lit. 'composition, combination'] of compound expressions or phrases of inner speech—as distinct from their content or subject matter, the things or states of affairs they are about or, as Al-Fārābī puts it, their matter [*mādda*]. Borrowing a formula from Al-Fārābī, Maimonides writes that "the relation of the art of logic with respect to the intellect is the same as that of the art of grammar with respect to language".[8] Whereas grammar concerns itself with the syntax of conventional individual languages, the domain of logic is the syntax of universal inner speech – in contemporary terms, logical syntax. Unlike Al-Fārābī, however, Maimonides holds that inner speech, though superior to external speech for reasoning in natural science, also fails to truly represent immaterial beings and acts in metaphysics and in particular, God and emanation. Maimonides' God is the Avicennean Necessary Existent Being in Virtue of Itself which is absolutely one in every possible way: simple, indivisible, uncaused, and incomposite—hence, a simple god with no attributes, period. Even inner speech fails to truly represent such a deity. Because its representations are syntactically composite propositions whose subject-predicate structure presupposes metaphysical differences (e.g., between substance, or substratum, and attribute), they violate the absolute simplicity required for representations of an absolutely simple being.[9] And because these representations misrepresent God as a subject of attributes, they block true representations about God.

> For there is no oneness at all except in believing that there is one simple essence in which there is no complexity or multiplication of notions, but one notion only (…) you will not find therein any multiplicity *either in the thing as it is outside of the mind or as it is in the mind* (…) (*Guide* I, 51, p. 113, my emphasis)

Maimonides assumes a strong representational constraint. Not only must we avoid any claim that, say, God is composite in reality "outside of the mind"; we also cannot *represent* God, the "One by virtue of a true Oneness", as a composite being 'in the mind'", mentally

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[6] On the superiority and ontological independence of inner speech, see Maimonides on Ps. 19, 2 in *Guide* II, 5, p. 260 and Stern, *Matter* (above, n. 4), pp. 196-7

[7] See Al-Fārābī, *Iḥṣā' al-ʿulūm* [*Enumeration of the Sciences*], ed. ʿU. Amin, Maktabat al-Khanji, Cairo 1931, pp. 17-18; cf. A.I. Sabra, "Avicenna on the Subject Matter of Logic", *Journal of Philosophy* (Nov. 1980), pp. 746-64, p. 762.

[8] Maimonides, *Logic* (above, n. 2), ch. XIV, p. 62; cf. Al-Fārābī, *Iḥṣā' al-ʿulūm* (above, n. 7) 54.2, p. 23; cited in ed. and trans. D.M. Dunlop, "Al-Fārābī's Introductory *Risalah on Logic*", *The Islamic Quarterly* III 4 (January 1957), pp. 224-235, p. 226, n. 3. and in F.W. Zimmermann, *Al-Fārābī's Commentary and Short Treatise on Aristotle's De Interpretatione*, Oxford U.P., Oxford 1981, p. xliii, pp. xxiv-xlviiii, who suggests that al-Fārābī may have been the first in the Aristotelian tradition to articulate this conception of logic as the study of form or structure.

[9] Here Maimonides assumes that substantive metaphysical theses can be read off of linguistic, or logical, structure. Cf. *Al-Fārābī's Commentary*, p. 43 Zimmermann (Comm. [50], 20-21).

representing Him as a subject or substance possessing attributes or as a substratum for forms. *How* one represents to oneself what one knows is no less truth-relevant than *what* one knows. Both can impugn the truth of a proposition. This is one main plank in Maimonides' skeptical platform challenging all knowledge claims that involve divine attributions in particular and human knowledge of metaphysics in general. Here I will not pursue that larger program, only Maimonides' critique of negative divine attributions.[10] My argument falls into three parts: First, I will argue that and why Maimonides takes negations of privations to be superior to affirmative attributions, or possessions. Second, I will argue that in saying that "negations" are the "correct", i.e., the generally accepted or approved, way of describing God, he means that they are correct relative to another specific way of describing God employing indefinite nouns. Third, while negations of privations may be the best possible way we humans can express propositions about God, I will argue that they nonetheless fall short of truly representing what they represent; hence, they are false and cannot constitute knowledge.

Maimonides opens his analysis by distinguishing between two kinds of problems that arise for divine attributes. The first concerns the *contents* of attributes that are demonstrated by natural science to be "negated", i.e., denied, of God, e.g., "living", "know", or "powerful". Maimonides' stark solution for this problem is to say that attribute-terms are purely equivocal when applied to creatures and God, and because we only understand their application to creatures, ipso facto their meaning applied to God is completely unknown to us.[11] All we know of the meaning of 'God possesses knowledge' is negative: that His "knowledge is not like our knowledge" (*Guide* I, 60, p. 144). The second problem for attributes, Maimonides writes, requires knowledge "of the art of logic and of the nature of being" (*Guide* I, 55, p. 129), i.e., metaphysics. Recall that logic is concerned with the syntax of inner speech. Maimonides is asserting that the second problem for divine attributes is their form: their logical syntax in regimented inner speech raises metaphysical objections.

Narrowing our attention here to the second problem, Maimonides writes:

> More obscure [i.e., deep] than what preceded. Know that the description of God (…) by means of negations is the *correct* [ṣaḥīḥ] description – a description that is not affected by an indulgence in facile language [tasāmuḥ] and does not imply any deficiency with respect to God or in any particular mode. (*Guide* I, 58, p. 134, my emphasis).

All commentators take 'correct' here to mean *true*, implicating that Maimonides is an advocate of the *via negativa*. But nowhere does he claim that negations are true or correspond to true reality, and we certainly do not find the kind of celebration of the method of negation that we find among Neo-Platonists or mystics who use it to transcend intellect and language to experience a divine presence beyond being. To the contrary, Maimonides emphasizes that negations are attributes and, hence, subject to the same problems of composition that arise for *all* attributions, regardless of whether they are affirmative or negative. At most negations are better than affirmative attributes because they raise fewer metaphysical problems. The only sense in which negative attributes are "correct" is that, among alternative non-affirmative devices to

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[10] For the broader program, see Stern, *Matter* (above, n. 4), chs. 5, 6, and 7.

[11] On Maimonides' doctrine of pure equivocation, see now H.A. Davidson, "Maimonides on Divine Attributes as Equivocal Terms", in S. Klein-Braslavy – B. Abrahamav – J. Sadan (eds.), *Tribute to Michael*, Tel Aviv U.P., Tel Aviv 2009, pp. 37*-52* and for criticism, J. Stern, "Maimonides on a False Picture of Providence" (ms.).

describe God, they are preferred or approved of because they do not indulge in "facile language" and imply no "deficiency", i.e., imperfection in Him (*Guide* I, 58, p. 134). Furthermore, I shall argue that this statement is directed against a specific non-affirmative alternative proposed by Al-Fārābī. In sum, compared to its advocates, Maimonides is a *critic* of the *via negativa*. *Neither* affirmative *nor* negative attributions enable us to express truths about the deity – because both misrepresent Him. Negations may nonetheless be "better" than affirmations (*Guide* I, 57, p. 133; I, 58, p. 135), indeed they may be the best we embodied humans can do, but they are neither true nor optimal.

The first step in Maimonides' argument is to show that "attributes of negation" are attributes no less than "attributes of affirmation". In chs. I, 58, 59, and 60, he shows that, like all attributes, they distinguish their extension from other things even if they do not uniquely individuate them; they increase our knowledge; and they are as representational as affirmations. On the other hand, negations are superior to affirmatives. First:

> Attributes of affirmation (…) indicate (*tadulu*) a part of the thing the knowledge of which is sought, either a part of its substance (*ǧawhar*) or an accident; [negations] do not give us knowledge in any respect whatever of the essence (*ḏāt*) the knowledge of which is sought (…)" (*Guide* I, 58, p. 135)

If an affirmative attribute signifies a *part* of something, then the whole must be compound. But the deity is absolutely simple and indivisible. Related to this is the argument from composition. If the Deity possesses attributes, there must be an "anterior cause" or explanation of His existence as a unity (*Guide* I, 52, p. 115). But this impugns His necessity in Itself, i.e., that He is absolutely uncaused. For these two reasons God "cannot have an affirmative attribute in any respect" (*ibid.*). Negations, in contrast, say nothing about God's essence; hence, they say nothing about a *part* of His essence. Nor can they be accidents because He has none. Hence, neither of the two problems for affirmative attributes arise for them: "No notion of multiplicity can attach to [God] in any respect because of them" (*ibid.*). This is the first advantage Maimonides gives negations over affirmative possessions.

To avoid these implications, Maimonides makes his first stab at translating affirmations in external speech into negations in inner speech. I will not quote the whole passage but here is a sample:

> It has been *demonstrated* to us that it is necessary that something exists other than those essences apprehended by means of the senses and whose knowledge is encompassed by means of the intellect. Of this thing we say that it exists, the *meaning* being that its nonexistence (*'adam*) is impossible. We *apprehend* further that this being is not like the being of the elements (…) which are dead bodies. We say accordingly that this being is alive, the meaning being that He (…) is not dead (…) We *apprehend* further that this being is not like the being of the heaven, which is a living body. We say accordingly that He is not a body (*Guide* I, 58, p.135-136, my emphasis).

This rich passage opposes the affirmative possessions (e.g., 'is living') of external speech which "we say", to the negations (e.g., 'is not dead') of inner speech which we "apprehend", "demonstrate", and "mean". Over the course of the whole passage, Maimonides shows that the net result of attributing – externally affirmative and internally negative – attributes to the deity is to exclude Him from all totalities of material and sensible beings, the heavenly spheres, and the separate intellects and intelligible beings – although it is demonstrable that there necessarily exists one such being that falls under none of these known categories and that apprehends, wills,

and purposes (all in purely equivocal senses). For our present purposes, it should be noted that Maimonides takes the external affirmative possession and its corresponding inner negation, say, 'living' and 'dead,' to "circumscribe the subject" (in al-Fārābī's words), i.e., the subject must be either one or the other; hence, we can treat them as contradictories and, a plain sentential negation of the possession "translates" into the corresponding "negation" and vice versa.[12] The sole virtue of the negative inner representation is that it avoids the metaphysical implications of parthood and divisibility; it adds no expressive power to the linguistic or intellectual repertoire of the thinker. However, Maimonides also has a second, stronger notion of a negative attribute.

> If the attribute that we predicate of Him is intended for the apprehension of His essence, it signifies the negation of the privation of the attribute in question. Moreover, even those negations are not used with reference to Him (…) except from the following point of view (…) [O]ne sometimes denies with reference to a thing something that cannot fittingly exist in it. Thus we say of a wall that it is not endowed with sight" (*Guide* I, 58, p. 136).

On this stronger notion of a negative attribute, what the external affirmative attribute now signifies is the compound "negation of the privation", which explicitly distinguishes the negation from the privation that is negated. One might think of this as a kind of double-negation.[13] A privation, according to Aristotle, is "the absence of something from the subject in which it would *naturally* occur" (Arist., *Cat.* 12 a 26-31). Al-Fārābī substitutes for 'naturally' "in which it would *properly* or *by design* occur", thereby expanding the class of privations to notions like 'poor' or 'naked' and making the idea of a privation more deontic than alethic.[14] In either case, a privation holds of something only if it is metaphysically *possible* for it to have its possession. Al-Fārābī argues that Aristotle in the *Categories* excludes privations of necessary properties, but in the *Metaphysics* allows for them, and Maimonides' possessions, especially because he is focusing on God, hold necessarily of Him, hence, their privations are *impossible* of Him. Finally, privations are generally expressed, like possessions, by a simple term, e.g., 'nonexistence' (Ar. *ʿadam*, Heb. *heʿeder*), 'dead,' 'powerless,' or 'ignorant.' Although they express the absence of the possession, technically they are affirmative in form.

The negation in the last sentence, furthermore, is not a plain sentential negation which would entail that the wall is blind. Rather it is categorial negation that denies that the wall falls under the category of things that either are or are not endowed with sight; the wall is not the kind of thing that is either seeing or blind. Similarly, for 'God is not a body': God is not the kind or category of thing of which it is possible for it either to be a body or not be a body. Thus the categorial negation of a privation denies that the subject falls in the category of things for which both the privation is a privation and for which an affirmative attribute is a possession. This stronger kind of negative attribute, unlike the previous notion, has, then, more expressive power than its corresponding external affirmative attribute.[15]

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[12]   According to al-Fārābī, the sentential negation can also be true if the subject does not exist.

[13]   Cf. P. Walker, "The Ismaʿilis", in P. Adamson – R. Taylor (eds.), *The Cambridge Companion to Arabic Philosophy*, Cambridge U.P., Cambridge 2005, pp. 72-91, p. 85 on Ḥamīd al-Dīn al Kirmānī's "process of double negation".

[14]   On privations in al-Fārābī, see *Al-Fārābī's Commentary* (above, n. 8), [38]-[39], pp. 28-30 Zimmermann, [108.8-14], p. 104, and [122]-[123.10], pp. 116-18, *Short Treatise* [59]-[70], pp. 234-40; and P. Thom, "Al-Fārābī on Indefinite and Privative Names", *Arabic Sciences and Philosophy* 18 (2008), pp. 193-209, 194-5.

[15]   See also *Guide* I, 57, p. 133. Cf. H.A. Wolfson, "Maimonides on Negative Attributes", in *Louis Ginsberg*

So much is fairly straightforward. However, at this point in his exposition Maimonides complicates his story by introducing yet another notion of negation which bears on his opening claim that the "correct" description of God is "by means of negations". Immediately following the previous passage, Maimonides addresses his reader, "you who read this Treatise with speculative intent", telling him that despite our considerable mathematical knowledge of the heaven, its measurements, dimensions and movements,

> our intellects are quite incapable of apprehending it quiddity. And this, in spite of our knowing that it has of necessity matter and form, for its matter is not like that which is in us. For this reason we are unable to predicate of it any attributes except with indefinite nouns (*al-asmā' al-ghayr muḥaṣṣala*) but not by means of affirmations of definite nouns. Accordingly, we say that the heavens are not-light and not-heavy and not-acted-upon and consequently not receptive to external impressions, that they have no-taste and no-smell; and we make other negations (*al-salb*) of this kind. All this is due to our ignorance with regard to that matter [i.e. the matter of the heavens]. What then should be the state of our intellects when they aspire to apprehend Him who is without matter and is simple to the utmost degree of simplicity (…) Him who has no cause and to whom no notion attaches that is superadded to His essence, which is perfect—the meaning of its perfection being (…) that all deficiencies are negated with respect to it—we who only apprehend the fact that He is (*'anniyya*)? (*Guide* I:58, pp. 136-137)[16],

Here Maimonides uses an Aristotelian technical logical term "indefinite noun" (*al-asmā' al-ġayr muḥaṣṣala*).[17] In his *Logic*, ch. 13, immediately following a reference to Al-Fārābī on nominative vs. accusative or genitive nouns, Maimonides describes the indefinite noun as "a noun composed of the word 'not' and the habit, e.g., 'not-seeing,' 'not-wise,' and 'not-speaking'".[18] He does not elaborate, but al-Fārābī spells out the idea in his *Commentary* on *De Interpretatione* [107.1]-[125.23] and in his *Short Treatise* [39.6-[40.3], [59]-[70]:

Jubilee Volume, American Academy of Jewish Research, New York 1945, pp. 411-46; repr. I. Twersky – G.H. Williams (eds.), *Studies in the History of Philosophy and Religion*, Vol. 1, Harvard U.P., Cambridge MA 1973, pp. 195-230, esp. p. 212.

16   I have made changes to Pines' translation that the heavens are "neither light nor heavy nor …", added hyphens to mark the indefinite nouns, and substituted "indefinite nouns" for Pines' translation of *'al-asmā' al-ġayr muḥaṣṣalà* as "terms whose meaning is not completely understood". S. Munk, trans. *Le Guide des Égarés*, 3 Vols., G.-P. Maisonineuve &Larose, Paris 1856-1866, citing another occurrence of *muḥaṣṣala* in *Guide* I, 52, translates the phrase in a similar vein as "mots sans precision" (Vol. 2, p. 247); S. Ibn Tibbon, trans. *Moreh Nevukhim* (Heb.), Vilna - Jerusalem 1904/1960, as "*shemot bilti meqaymim, lo bahiyuv ha-miqayem*", not positive or affirmative, hence, something close to negative; and M. Schwarz, trans. *Moreh Nevukhim* (Heb.), 2 Vols., Tel Aviv U.P., Tel Aviv 2002, p. 146, following Pines, as "*shemot lo' muvanim*". Only R.J. Kafih, trans. *Moreh ha-Nevukhim la-Rabbenu Mosheh ben Maimon: Maqor ve-Tirgum*, 3 Vols., Mossad HaRav Kook, Jerusalem 1972, Vol. 1, p. 144, translates it "*lo mugdarim*", not defined, which is close but he does not explain his translation. As Ch. Manekin, "Propositions and Propositional Inference", in S. Nadler – T. Rudavsky (eds.), *Cambridge History of Medieval Jewish Philosophy*, Cambridge U.P., Cambridge UK 2008, pp. 167-87, points out with respect to Pines, none of these translators seem to realize that this is technical terminology in logic. On Maimonides' use of the term *'anniyya*, see Stern, *Matter* (above, n. 4), pp 225-6 and W.Z. Harvey – S. Harvey, "A Note on the Arabic Term *'Anniyya/'Aniyya/'Inniyya*" (in Hebrew), *Iyyun* (April 1989), pp. 167-71 and references therein to the controversy over its meaning among Pines, Baladi, Vajda, D'Alverny, and Munk.

17   Arist., *Anal. Pr.,* I 51 b 5 - 52 b 34

18   For detailed discussion, see Wolfson, "Negative Attributes" (above n. 14), pp. 216-27, who discusses only the *Logic* and not the *Guide*, thereby inferring incorrectly that Maimonides endorses their use.

[A noun] becomes indefinite (*al-ġayr muḥaṣṣala*) when the negative particle, i.e., the particle 'not', is linked [i.e., hyphenated] with it so that together the two words assume the shape of a single expression (…) Such nouns (…) have an affirmative signification in that they signify to the speakers kinds of privation. For instance, 'not-sighted,' 'not-knowing,' and 'not-just' to them signify 'blind,' 'ignorant,' and 'unjust' (…) (*Al-Fārābī's Commentary* [above n. 8)], *Short Treatise*, p. 222 Zimmermann).

Al-Fārābī's rich discussion of the indefinite noun has been analyzed at length by Paul Thom (see n. 13), but space does not allow me to review his account in detail.[19] What is important for us is (1) that indefinite nouns signify privations but nonetheless are affirmative in form and (2) that *metathetic* statements (ones containing indefinite nouns), e.g., 'The wall is not-knowing,' differ truth-conditionally from statements containing sentential negations like "It is not the case that the wall is knowing".[20] As Al-Fārābī explains,

The difference between a [metathetic] statement and a negation is that the negation is more generally true than the [statement with an] indefinite [noun]. For if something is negated it is eliminated both from things designed to have it and from things not designed to have it, while an indefinite noun eliminates something from things designed to have it: '(…) is not knowing,' which is a negation, is true of a wall as well as an ignorant man and an infant, while 'not-knowing' is like 'ignorant'. 'Not-knowing' is not applied to a wall any more than is 'ignorant' (*Ibid.*, Short Treatise [59], p. 234).

Furthermore, the sentential negation is true when either the wall does not exist or, when it does exist, it is not knowing; the metathetic statement, like an affirmative privative statement, presupposes the existence of the subject and is true only when the privation applies to it. Thus, the extension of a metathetic statement is narrower than that of the negation. In sum, the negation-sign is a sentence-forming operator on (atomic) sentences, and the particle attaches to the copula, while in the 'metathetic' sentence, the not-sign is a noun-forming operator on (simple) nouns.[21]

After laying out the differences between indefinite nouns and plain negations, al-Fārābī describes two additional functions of indefinite nouns beyond signification of privations. The third is relevant for us.

Indefinite nouns are used in a yet more general fashion to eliminate something from a subject held to exist, though the eliminated thing is not designed to be in this subject (…) It is in this fashion that God Almighty is described by indefinite nouns [e.g. not-mortal and not-fading], and it is in this fashion that Aristotle says about heaven that it is not-light and not-heavy, this being a

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[19] P. Thom, "Al-Fārābī", *Arabic Sciences and Philosophy* 18 (2008), pp. 193-209. Arabic, unlike Greek, contains no indefinite terms, so al-Fārābī gives considerable attention to where the negative particle ought to be placed. He also relativizes privations to stages in the growth of a subject, and attacks the commentators for their analyses of metathetic propositions and proposes several different meanings or usages of the term 'indefinite,' to one of which I return below.

[20] Recall that privations expressed by simple terms, e.g., 'nonexistence' (Ar. *ʿadam*, Heb. *heʿeder*), are affirmative in form. Because indefinite nouns also signify privations where we do not possess a simple term, they are likewise affirmative in form

[21] *Al-Farabi's Commentary* (above, n. 8) [32, 1-8], p. 20 Zimmermann, n.2; *Short Treatise* [59] p. 234 Zimmermann; see also Manekin, "Propositions" (above in . 15).

metathetic affirmation, not a negation. (*Al-Fārābī's Commentary* [above n. 8], *Short Treatise*, [68]-[69] Zimmermann).[22]

In the Commentary, Al-Fārābī elaborates on this third role with reference to God:

One should, therefore, not say that God Most High can be described negatively, but that He can be described by indefinite nouns. In many cases, their precise function is to signify a positive quality which is affirmed in such a way as to distinguish its subject totally from the things of which the corresponding definite noun is true, in which case they do not signify a privation. For it would be absurd to say that, in connection with something which cannot be deprived at all [i.e., God], an indefinite noun signifies a privation. Since many things are distinguished from others by differentiae, the indefinite noun truthfully predicated signifies the differentia which distinguishes from other things the things to which it does not apply. An example is 'not-rational,' which is true of horses and many animals. According to what we have said, 'not-rational' must signify the differentia distinguishing and dissociating every animal to which 'not-rational' does not apply from others. The same applies to 'not-heavy' and 'not-light' as applied to heavenly bodies (…) (*Al-Fārābī's Commentary* (above n. 8), [125.11-20], pp. 12-121 Zimmermann).

Al-Fārābī himself seems to realize that this application to God and the heavens is not unproblematic: "What we have said is not without problems. But to say more than this would be to go beyond the limits of logical inquiry..". (*ibid.* [125.21-23], p. 121). It is striking, however, that in both the *Commentary* and *Treatise* Al-Fārābī juxtaposes attributions of indefinite nouns in this third role to the heavens and to God while Maimonides in *Guide* I, 5, while also juxtaposing them textually, explicitly distinguishes the two kinds of attributions.[23] We can now see the grounds for Maimonides' disagreement with Al-Fārābī.

In the *Commentary* and *Short Treatise*, Al-Fārābī writes that the indefinite noun in this third role, on the one hand, can only be applied if it is presupposed that the subject exists but, on the other, can be attributed even if the subject is not "designed" to possess the corresponding possession. Hence, 'not-light' and 'not-heavy' applied to the heavens need not signify heavenly privations of (sub-lunar) 'light' and 'heavy,' respectively. Instead, Al-Fārābī proposes that they signify positive *differentia*, whatever they are, that distinguish heavenly matter from everything else to which, say, 'not-light' (in its sub-lunar sense) does *not* apply, hence, to which 'light' *does* apply. Hence, there is some affirmative attribute of heavenly matter that differentiates it from sub-lunar matter. Maimonides agrees that this is *kosher* for the heavens. However, unlike al-Fārābī, he does not extend this claim to God for two reasons. First, if an indefinite noun is affirmative and signifies some unknown attribute by which God is distinguished from everything else to which the indefinite noun does *not* apply (and to which the corresponding definite noun does apply), that would imply that God has attributes that would require a cause to compose them with the subject. Second, it would imply that God falls in a genus with other things from which He is distinguished by differentia. Instead, Maimonides argues, we can apply indefinite nouns to heavenly bodies despite, or because of, our ignorance of heavenly matter and because

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we do not "completely understand" their affirmation. But when we turn to God about whom all we know is "the fact that He is", all we can say is that He has neither the possession nor the corresponding privation, taking the negation to be categorial.

One can almost hear this exchange between Maimonides-Al-Fārābī:

> Al-Fārābī: "One should (…) not say that God Most High can be described negatively, but that He can be described by indefinite nouns. [They] signify a positive quality which is affirmed in such a way as to distinguish its subject totally from the things of which the corresponding definite noun is true (…)" (*Commentary* [125.11-12], p. 120).
> Maimonides: "Know that the description of God (…) by means of negations is the correct description… if one describes him by means of affirmations, one implies (…) that He is associated with that which is not He and implies a deficiency in Him (…)" (*Guide* I, 58, p. 134).

To sum up, Maimonides, unlike al-Fārābī, holds that neither indefinite nouns nor plain negations of affirmative possessions truly describe the deity. Nonetheless, at this point in his exposition, Maimonides still seems to allow that categorial negations of privations are "correct", i.e., acceptable, descriptions of God. Why, then, do they fail to express *truths* about God?

Earlier we mentioned two metaphysical problems raised by affirmative attributes: (i) parthood or divisibility and (ii) causedness. Categorially negated privations avoid both of these problems. But in ch. I, 59 Maimonides raises a new problem:

> Know that when you make an affirmation ascribing another thing to Him, you become more remote from Him in two respects: one of them is that everything you affirm is a perfection only with reference to us, and the other is that *He does not possess a thing other than His essence, which* (…) *is identical with His perfections* (*Guide* I, 59, p. 139, my emphasis).

The first problem is the familiar issue concerning the false (creaturely) *content* of affirmative attributes. But the second problem concerns the logical *form* of our representations of attributions. In ascribing something to something, one distinguishes between what one is ascribing and that to which one is ascribing it, between the attribute and *substratum*, subject, or essence. This distinction is perfectly kosher when we represent beings other than God that are composite, but *not* when we represent the deity who "does not possess a thing other than His essence, which (…) is identical with His perfections". Maimonides presents this as a problem for affirmative attributes but it is not a problem *only* for them. *If* privations are attributes (and indeed affirmative) even if they are not parts, and if negations deny something of something, even representations consisting of categorial negations of privations are subject to the same composite syntactic problem:[24]

> Accordingly, you have not arrived at a knowledge of the true reality of an essential attribute, but you have arrived at multiplicity. For you believe that He is a certain essence possessing unknown attributes… for if you say God… is a certain substratum upon which certain borne things are superposed and that this substratum is not like these adjuncts, the utmost of our apprehension would be, on the basis of this belief, polytheism and nothing else. For the notion of the substratum is different from that of the adjunct borne by it. Now the demonstration of the impossibility of

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[24] Cf. *Al-Farabi's Commentary* (above, n. 8) [38.14]-[38.4], pp. 28-29 Zimmermann.

composition in Him (…) and of His absolute simplicity, which is extreme and ultimate, will be made clear to you in certain chapters of this Treatise (*Guide* I, 60, pp. 144-145).

As long as our representations syntactically represent God employing subject-predicate syntax, as an "essence possessing unknown attributes" or as "a certain substratum upon which certain borne things are superposed" – *and even if we negate the proposition* – we represent the deity as composite, not simple, not one. We have "arrived at multiplicity" and landed ourselves in "polytheism"! Furthermore, the copula, which in Arabic as in English is expressed by the same word as existence or being –'*wuǧūd*' – itself *signifies* composition, namely, the relation, or "bond" that holds between the subject and predicate when one is attributed to the other; hence, the composition itself is also part of what is represented.[25] This *syntactic* differentiation of essence and attribute, composed together in one proposition, violates divine unity or simplicity. Even if we can demonstrate that God is one, this proposition or thought *mis*represents Him as a subject with an attribute, hence, as composite or multiple. Hence, it is a false representation. This problem for divine attribution – I call it the 'syntactic problem' of divine attributes – infects all attribution, affirmative and negative.

Maimonides ends his discussion of divine attributes without mentioning negations as possible interpretations. The only options are to take the words of Scripture figuratively or to take them to be about divine actions, i.e., natural processes. Negations of privations are better than affirmative attributes, but at the end of the day they also do not express truths.

I will conclude with Maimonides' final word on the "syntactic problem" of divine attributes which emerges in the course of his analysis of divine names (*Guide* I, 61-63) and, in particular, of the *Tetragrammaton* ('YHVH'), the one expression Maimonides considers a *name* of the deity as opposed to all other terms that signify God, such as '*Elohim*, '*Adonai*' (Our Lord) or 'The Just.' As we saw earlier, Maimonides distinguishes issues about content from those of syntax, and for reasons of space I will only address differences between the respective structures of these singular terms for the deity. Maimonides describes the *Tetragrammaton* as

the name that has been originated without derivation (*ism mutarǧil*) (…) all of [the other] names, because of their being derived [*muštaqq*], indicate attributes; that is, not an essence alone, but an essence possessing attributes. For this reason, they produce in one's fantasy the conception of multiplicity (…). [They] indicate a notion and a substratum that is not clearly stated and with which the notion in question is connected. (*Guide* I, 61, pp. 147-48).

Ism mutarǧil and *muštaqq* are logical-syntactic terms with a long history beginning with the kalam but Maimonides' own distinction between them is adopted from al-Fārābī.[26]

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[25] *Ibid.* [22.18-20], p. 7 Zimmermann: "composition is the form of sentences".

[26] On the history of the distinction, beginning with Basrian *kalām* through al-Fārābī, Avicenna, and al-Ġazali (and with a glance at Maimonides), see C. Schock, "Name (*ism*), Derived Name (*ism mushtaqq*) and Description (*wasf*) in Arabic Grammar, Muslim Dialectical Theology, and Arabic Logic", in S. Rahman *et al.* (eds.), *The Unity of Science in the Arabic Tradition*, Springer, Heidelberg - Berlin 2008. That Maimonides' source for his use of the distinction is al-Fārābī is demonstrated by the fact, as mentioned in the text, that the derived name is said to indicate a subject that is "not clearly stated" or "articulated," which is a phrase repeatedly (and to the best of my knowledge, uniquely) used by al-Fārābī, in *Al-Farabi's Commentary* (above, n. 8), e.g., [33.15], p. 22 Zimmermann, [34.3] p. 23, [52.6-7], p. 230; cf. pp. xxvii and xxxviii where Zimmermann acknowledges that al-Fārābī "may be inspired by Arab grammar (that is, the indigenous grammatical theory of the Arabs) rather than Greek tradition". As we saw earlier with the phrase "*al-asmā*'

Maimonides is saying that the logical forms of terms such as 'The Just' are "derivative", or paronyms (derived from verbs or nouns), that in turn require a subject. In contemporary logical terms, this is to say that 'The Just' has the logical form of a definite description: "The (unique thing) _ such that _ is just", built up out of the proposition that _ is just, in which the paronymic predicate 'is just' "indicates" an "unstated *substratum*" in subject position marked by the underscored line. Nowadays we would use a variable instead of the underscoring (e.g. 'The *x*: *x* is just'). This logical form has the same composite subject-predicate syntax that, as we saw in the case of attributes, misrepresents the simple, absolutely one deity. According to al-Fārābī, syntactically composite expressions, and their corresponding mental representations, "imitate" their referents.[27] Therefore, a logically or syntactically composite representation, like that of a definite description, even only "in the mind", implies that what it signifies "outside the mind" is metaphysically composite – which is, again, incompatible with divine unity. Thus all descriptions of God, such as 'The just,' *given their logical syntax*, misrepresent the deity. Only the *Tetragrammaton* is underived in the particular sense that its *logical syntax* indicates no attribute and no unstated substratum; it is syntactically unstructured, a pure, logically simple name – which thereby avoids the syntactic problem of divine attributes. Of course, even with this singular name to signify God, we still lack a *propositional* representation about God which would be necessary for knowledge claims; any such proposition would re-introduce problematic subject-predicate syntax that in turn misrepresents God.

Maimonides draws significant epistemological consequences from these logical analyses of attributions and names which I cannot explore here. But I hope I have at least made plausible the hypothesis that the *Guide* is where we should look for Maimonides' true mastery, originality, and creativity in matters of logic.

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al-ġayr muḥaṣṣala', translators of the *Guide* have not always recognized that *ism mutarǧil* and *ism muštaqq* are technical logical terms. For example, Schwarz (trans.), *Moreh* (above, n. 15) I, 61, n. 1, following Munk (trans.), *Le Guide* (above, n. 15) *ad. loc.*, translates *ism mutarǧil* as "an underived personal name", explaining that it is a grammatical term that also signifies being unique.

[27] That the logical structure is composite mirrors the fact that the metaphysical structure is also composite, although al-Fārābī does not commit himself to the claim that the two metaphysical and logical structures are identical.