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In Memoriam of My Father
who was an outstanding poet
and his verses were blessing
for all things he liked

PREFACE

Judaism differs considerably from other theistic religions. One of the main features is that Jewish religious laws are not dogmatic but based on specific legal reasoning. This reasoning was developed by the first Judaic commentators of the Bible for inferring Judaic laws from the Pentateuch. The book is about Judaic reasoning from the standpoint of modern logic. Its first goal is to define Judaic logic. This logic was aimed to be a methodology for deducing religious laws. The idea that this methodology can be viewed as original logic that is not less deductive than Aristotle's logic did not emerge until the Late Middle Ages. At that time Medieval Hebrew works about Judaic reasoning were influenced by Arabo-Islamic philosophy as well as by Latin Scholastic logic. In this volume we discuss different forms of influence of the Aristotelian logic on developing the Talmudic methodology. Then we aim to sketch semantics for the Judaic reasoning, explicating Talmudic case study and Rabbinic situation analysis to develop general approaches to formalizing Judaic logic. This consideration of Judaic logic has relevance for modern logic and analytic philosophy and may be compared with the contribution made by the formalization of Ancient Greek logical systems to 20th-century logic and language philosophy.

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THE *A FORTIORI* ARGUMENT IN THE *TALMUD*

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ABSTRACT

This paper deals with a fortiori *arguments within Talmudic literature. Great attention is devoted to* a fortiori *in itself, independently of the Talmud. After introducing the famous ten examples of* a fortiori *arguments in the Bible, section (2) tries to outline the nature of the* a fortiori *argument; section (3) sketches three types of treatment of a fortiori: topical, logical and two-dimensional; finally, section (4), assesses the role of the Talmud in understanding* a fortiori.

1. Introduction

The use of an *a fortiori* argument (*qal wa-ḥomer*) is most probably spread throughout the world. While one may inquire whether this specific argument style has been given a specific technical name everywhere: it might appear that in some languages and traditions there is no specific term appointed to it (it was important to raise the issue in these terms to prevent anyone from deducing, from the fact that there is no technical term in a given culture, that the argument is not used at all). The best counter example is the Bible

itself. It contains no technical term to name the argument but nonetheless performs the argument several times.

Ten *a fortiori* arguments are to be found in the Tanakh [3, pp. 121 – 122]. This is the list (in fact one of the lists[98]):

(1) Upon being accused of stealing Joseph's goblet, the brothers replied: *Here look: the money that we found in the mouth of our sacks we brought back to you from the land of Canaan. How, then, could we have stolen from your master's house any silver or gold?* (*Gen.* 44:8).
(2) Upon being told by God to order Pharaoh to release the Jews, Moses responded: *Behold, the children of Israel have not listened to me; how, then shall Pharaoh listen to me?* (*Ex.* 6:12).
(3) Explaining why Miriam must be banished from the camp for speaking *lašon hara'* (evil gossip), as a result of which she was stricken with leprosy, God told Moses: *If a father had but spit in her face, should she not be ashamed seven days?* Then, certainly, *let her be shut out from the camp seven days,* away from the Divine Presence (*Num.* 12:14).
(4) Moses chastised the Jews before his death: *Behold, while I am alive with you this day, you have been rebellious against Ha-Šem; and how much more so after my death?* (*Deut.* 31:27).
(5) God, demanding faith and patience of Jeremiah: *If you have run with the footmen and they have wearied you, how, then, can you contend with horses?* (*Jer.* 12:5).
(6) *And in a land of peace where you are secure, how will you do in the thickets of the Jordan?* (*Jer.* 12:5).
(7) King David's soldiers expressing their apprehension over the prospect of fighting the Philistines far from their home: *Behold, we are afraid here in Judah; how much more so if we go to Ke'ilah against the armies of the Philistines?* (*I Sam. 23:3*).
(8) Regarding punishment for sin during man's earthly existence: *Behold, the righteous shall be repaid on the earth; how much more the wicked and the sinner!* (*Prov.* 11:31).

[98]The list as well as the number of a fortiori arguments is debated in the Talmudic tradition. We cannot review this controversy, which is independent of our point.

(9) King Ahaseurus reporting the casualty figures to Queen Esther: *in Shushan the Capital, the Jews have slain and annihilated five hundred men, as well the sons of Haman. What must they have done in the rest of the King's provinces!* (*Esth.* 9:12).

(10) Comparing sinful Israel to a degenerate vine that has become valueless, and further has been reduced to a mere fragment by the loss of the ten tribes, the prophet seeks to justify the impending national catastrophe: *Behold, when it was whole, it was fit for no work; how much less, when the fire has consumed it and it is singed, shall it be fit for any work*? (*Ezek.* 15:5).

Each of these ten Biblical examples deserves and indeed was given a great deal of attention (on the nature of interpretation of the Bible and on the forgotten *a fortiori* arguments, see [6]). Not only the Bible but also the Talmud contains *a fortiori* arguments. Even though there are hundreds of examples of *a fortiori* in the *Talmud*, the very nature of this argument will be here considered rather than a case study.[99] This paper's approach is theoretical in nature. Only after a sustainable theoretical treatment is offered can one draw consequences from the particular *a fortiori* arguments. The *a fortiori* argument general *type* is here called into question, not the *a fortiori* argument *tokens*, particular examples.

To analyze the *a fortiori* argument, a provisional definition and list of its basic tenets are provided.

2. What is an a fortiori argument?

At the end of this paper, (4) examines the Talmudic account of *a fortiori* arguments. Let us nevertheless read the explanation of the *qal wa-ḥomer* argument, a sort of *a fortiori* argument in Talmud:

> Logic dictates that if a lenient case has a stringency, the same stringency applies to a stricter case. Another way of putting it is that laws can be derived from less obvious situations and applied to more obvious ones. For example, if it is forbidden to pluck an apple from a

[99]For a case-study, see [1].

> tree on *festivals* (when food may be prepared by cooking and other means that may be prohibited on the Sabbath), surely plucking is forbidden on the *Sabbath*. Conversely, if it is permitted to slice vegetables on the Sabbath, it is surely permitted on festivals [10, p. 52].

This example introduces the reader to a very specific sort of *a fortiori*: the legal one that considers whether an act is licit or not within the context of Jewish law. Now that *a fortiori* has been briefly explained in the context of the Talmud, let us come back to argument from a more general point of view. Two points must be put forward: the *a fortiori* arguments contain a comparison and arguments are overt. An *a fortiori* argument is a complex argument that requires a comparison, as part of it. The argument is intrinsically overt in the sense that it is *presented as* supporting a claim. A simple argument is a reason expressed to support a claim. It has to be expressed because otherwise it would not be an overt argument but a covert motive. Let us sum it up. The *a fortiori* argument is a complex argument *presented as* stronger in *comparison* with another situation. The structure is that if p applies in case A, and since B is more x than A, then p applies *at least as much* in B. p is any category; A and B are situations; and x is the scalar feature of a situation by which a category applies.[100]

For example,

- If beating your child is forbidden, beating him to death is even more forbidden.
- If beating your child is forbidden, beating him to death is at least as much forbidden.

Just like any other *a fortiori* argument, this example is debatable. Nonetheless, the example gives the reader a sample of what an *a fortiori* argument looks like. All examples of *a fortiori* are artificial comparisons that proceed *as if* other legal grounds did not apply. For example, it is often the case that *beating to death* will in fact not fall into the category of *beating* but of *murdering*. Our example is ana-

[100]Avi Sion puts forward that "Aristotelian syllogism deals with attributes of various kinds, without effective reference to their measures or degrees" [11, p. 48].

lyzed as if there is no law that forbids murder and thus, we must be content with a law that forbids beating. This is a mere hypothesis.

Let us now discuss some technicalities. It is very important to point out the *at least* expression. The *a fortiori* argument compares two different situations in which the latter situation deserves the same category at a higher degree. So, why be content with a category if you could afford a higher category? Why, for instance, would you condemn beating in the same way as beating to death? It looks as if the *a fortiori* argument leads us to treat two obviously different situations *in the same way*, contrary to the principle of treating similar cases similarly. Indeed, the core of the *a fortiori* argument is to state that the second situation is more x (obvious, stringent, lenient) than the first, therefore different. This is, paradoxically enough, where the strength of the *a fortiori* argument lies. The *a fortiori* argument is based on a tension — a dissymmetry between the category to be applied to two situations the second of which *would* require either a stronger concept or the same concept to a greater degree. In other words, the *a fortiori* argument's strength stems from the fact that it presents itself as entitled to demand more than what it does.[101] This device of explicitly limiting itself to what is demanded in the first situation is accounted for within the *Talmud* and is referred to as *dayo*, ('it is enough'): the demand of the first situation is sufficient in the latter situation. This point will be scrutinized below.

3. Theories of a fortiori arguments

Two types of theories will be reviewed (3.1) and (3.2), as well as a two-dimensional theory (3.3) followed by an explanation of the argument's relevance to the Talmud (4).

One could distinguish two main theories of argumentation according to conditions of defeasibility and indefeasibility. An argument is defeasible when the theory accounts for the possibility of

[101]The a fortiori argument is under this aspect similar to the miggo device in the Talmudic literature. This similar feature – that both present themselves as demanding less that they could – partially explains their strength. This point should of course be examined more closely.

defeating it.[102] 'Topical reductionism' holds that all arguments are defeatable. 'Logical reductionism,' on the contrary, presents a scenario where no valid argument is defeatable.[103] Ultimately, topical as well as logical theories are discarded and a third theory is put forward that accounts for both defeatable and undefeatable arguments. This theory, called two-dimensionalism, makes it possible to explain the a fortiori device.

3.1. Topical theory of a fortiori

The topical theory may be traced back at least to Aristotle's *Topics* as well as to his *Rhetorics* and *Poetics*. It states that all arguments are defeatable and defeasible. The idea is that any argument may be accepted or rebutted. Arguments may always be adduced on either side. It is important to point out that to rebut an argument does not mean that is in effect refuted.

As far as we can see, Aristotle does not explicitly look into the so-called *a fortiori* argument. He mentions the *topos*, '*He who can do more can do less*' in the books of the *Topics* (II, 10). The equivalent French proverb, '*Qui peut le plus peut le moins*' is usually translated into English as, '*all the more (so)'* – which translates back into the Latin phrase '*a fortiori*.' He presents the *a fortiori* argument as a *topos* among others, in other words, as a defeatable argument.

Among modern types of topical theories of argumentation, the new rhetoric of Chaïm Perelman deals with the *a fortiori* argument and considers it as a sort of analogy argument [9, p. 155] and stresses the fact that the *a fortiori* argument is not part of formal logic since there are laws that limit the use of *a fortiori* arguments [8, par. 33]. Perelman, in this manner, renews the topical theory of argumentation. According to him, there is no undefeatable argument, not even the *a fortiori* argument. The *a fortiori* is then not set apart from the other types of arguments.

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[102]In this paper no distinction is made between defeatability and defeasibility.

[103]Both reductionisms are not supported in these terms. Instead, they are heuristic reconstructions of real trends within the history of theories of argumentation.

3.2. Logical theory of a fortiori

The logical theory of argumentation deals with validity of arguments and not with their persuasiveness. An argument is considered either valid or invalid. There are all sorts of syllogisms divided in two categories depending on whether they are valid and never defeatable or invalid and always defeatable. There is no place, according to the law of excluded middle, for *relatively* valid syllogisms or arguments in general.

The *a fortiori* argument is given several accounts. McCall considers *a fortiori* arguments as both oblique and syllogistic. An oblique syllogism utilizes grammatical 'oblique' cases: the transitivity is not obvious but underpinned by grammatical cases. Usually, being oblique is a weakness in logic, whereas the (valid) syllogistic form indicates a well-formed logical proposition. If one accepts the legitimacy of the oblique dimension, *a fortiori*'s logical validity is safe.

Avi Sion has devoted many pages to *a fortiori* arguments within the Bible and the Talmud. At the end of a chapter on formalities of *a fortiori* arguments, Sion writes: "I did not *prove* the various irregular *a fortiori* to be invalid, but rather did *not find any proof* that they are valid" [11, p. 46]. Sion claims that an *a fortiori* argument's validity, if not rebutted, is not yet demonstrated either. We do not claim to provide the reader with such a logical proof – Sion is right. The *a fortiori* argument is not only a logical but also linguistic device. This is why a logical approach to the *a fortiori* argument is insufficient to grasp its linguistic specificity.

3.3. Two-dimensional theory of a fortiori

Two-dimensionalism in argumentation has been sketched in Goltzberg [4]. This theory considers that both defeatable and undefeatable arguments are to be accounted for by a comprehensive view of argumentation. Logical and topical arguments are two dimensions within argumentation and it would be misguiding to reduce argumentation either to logics or topics.

Our hypothesis is that arguments are not defeatable or undefeatable in themselves but *presented as* defeatable or undefeatable [2, p. 28]. This by no means leads to a relativism according to which nothing would be sure in itself. Instead, it accounts for the impor-

tance of the *presentation* dimension in argumentation. An argument is never nude but always accompanied by a commentary, an instruction on how exactly the argument is to be taken. Most of the time, the argument provides the listener or the reader with instructions as to how to interpret it.

If argumentation has to do with presentation of argument, let us ask: how exactly are the arguments presented? Arguments are structured by two main parameters: orientation and strength. The four types of arguments may be analyzed through the following transitional keywords examples. Keywords may be co-oriented or counter-oriented and stronger or weaker.

	Weaker	**Stronger**
Co-orientation	At least	Or even
Counter-oriented	Even if	Unless[104]

Before addressing the issue of an *a fortiori* argument's structure, a remark is necessary to explain how a line of argumentation is dialectally built on transitional keywords. This dialectical dimension is not sufficiently highlighted in Goltzberg [4]. In order to assess the strength of an argument, one should understand the strength of the various arguments that come into the picture.

(1) *He can run 5 miles even if he is tired.*
(2) *He can run 5 miles unless he is tired.*
(3) *He can run 5 miles or even 10 miles.*
(4) *He can run 10 miles or at least 5 miles.*

1. *p* even if *q*
2. *p* unless *q*
3. *p* or even *q*
4. *p* or at least *q*

[104]A good transitional keyword of this category could have been the word but, which by the way, is translated the same way (*'elah*) as unless in the Talmud.

Considering the orientation parameter, *q* is a counterargument in (1) and (2), whereas *q* is an agreeing argument in (3) and (4). Let us now move to the strength parameter: in (1) *even if* introduces an argument *q* that is presented as weaker, which makes the main claim *p* stronger. In (2) *unless* introduces an argument *q* presented as stronger, which makes *p* weaker. In (3) *or even* introduces an argument *q* presented as stronger, which makes *p* weaker. It also makes the entire claim weaker, because part of it – the part *or even q* – is more risky. In (4) *or at least* introduces an argument *q* presented as weaker, which makes *p* and the general claim stronger.

Not only do transitional keywords make it possible to ascribe a certain strength to one argument; they are also able to distribute the strength to each relevant part of the line of argumentation. (1) To strengthen an argument *p*, you weaken its counterargument *q*. (2) To weaken an argument *p*, just strengthen its counterargument *q*. (3) To weaken an argument *p*, strengthen its co-oriented argument. (4) To strengthen an argument *p*, think of presenting as weaker its co-oriented argument *q*.

Let us come back to the *a fortiori* argument: it contains an argument introduced by *at least* that is presented as weak in the precise sense that the speaker could have afforded to claim more. It is stronger because it demands less than it could. So the very difference between an *a fortiori* and a common 'at least' argument is that usually in lines of argument that contain 'at least,' what was stated before is cancelled. Let us consider these two examples:

(4) *He can run 10 miles or at least 5 miles.*
(5) *Since he can run 10 miles, he can for sure run at least 5 miles.*

Whereas the claim as to the 10 miles is cancelled in (4), in (5), the *a fortiori* does not cancel or undermine the first part of the sentence: *since he can run 10 miles, he can for sure run at least 5 miles.* In other words, in usual 'at least' arguments, the speaker does not commit himself to the argument before 'at least'; on the other hand, in *a fortiori* arguments, the speaker still commits himself to the truth of the first part. This is why he demands to be heard *all the more* when his claim is weaker. The fact that he diminishes his claim makes it stronger if he sticks to the first claim too. (5) is an *a fortiori* argument; (4) is not.

4. Talmudic theory of a fortiori

It is sometimes asked whether Talmudic argumentation is different from other types of discourses. When it comes to *a fortiori* argumentation our question is: what is specific about *a fortiori* in the *Talmud*? Three potential answers deserve attention: (1) the *dayo*, (2) the autonomous use of *a fortiori* and (3) the interdiction of punishment on the basis of an *a fortiori*.

(1) First, one could hold that *dayo* is typical of Talmudic argumentation. Let us recall the meaning of the *dayo* device: this instruction aims at insisting on the fact that the second situation deserves the judgment applied to the first situation, in a degree that is at least as great *but not greater*. The function of the *dayo* clause is the following: it prevents someone from applying a higher rate/price/praise/blame to a situation that obviously deserves it at least as much as the former *and probably more*, as one would want to continue the proposition. The *Talmud* would have added the *dayo* device and transformed thereby the very structure and use of *a fortiori* arguments.

This meets a prohibitive objection: *dayo*, as a claim that the second situation be treated *precisely as* the former, is not *added* to the *a fortiori* argument. It is simply inherent in it.[105] The merit of the *Talmud* is not to have added this device but to have made it clear that one should respect the principle of the *dayo*.

(2) Second, the *Talmud* focuses on the fact that *a fortiori* is the only rule of interpretation whereby everyone agrees that to a certain extent, it may be used alone and independently of tradition [12]. Among Rabbi Ishmael's 13 Rules of Inter-

[105]Several persons to whom I said this brought examples from the Talmud in which, according to them, some opinion stressed the fact that there was an *a fortiori* argument but the dayo was refused. In fact, this issue deserves a closer scrutiny. It is possible to make it clearer by the distinction between *de re* ('in fact') and *de dicto* ('supposedly'): someone may be said to claim (*de dicto*) that there is an *a fortiori* without *dayo*, but no one could possibly think that there is *de re* an *a fortiori* without *dayo*. This point merits wider examination.

pretation, the *a fortiori* argument is the only rule that can be utilized of one's own accord. The freedom of utilization *a fortiori* probably originates from the fact it is a strong argument, if not undefeatable. This point is a general feature of the *a fortiori* argument that has been focused on by the Talmud, even though the next point somehow undermines the force of the *a fortiori* by limiting its application.

(3) Third, the *Talmud* prevents the judge from punishing on the basis of an *a fortiori* argument. The principle *'ein 'onšin min ha-din*, explains that one does not punish on the basis of an *a fortiori* judgment. Jastrow translates: "the trespass of a law derived by conclusion *ad majus* is not punishable" [5, p. 301]. If I need to utilize an *a fortiori* argument to punish someone and cannot rule without this argument, the accused must be exempt.

(1) The Talmud thus explicitly underscores the fact that the *a fortiori* argument is based on a tension due to the fact that the same category applies in two situations the second of which is presented as deserving a stronger category. (2) This tension is not to be reduced; *dayo* is the name of the instruction not to reduce the tension by applying a stronger category. Because of the *a fortiori* argument's force, based on the aforementioned tension, this argument strengthens in comparison with others and is utilizable alone. (3) Finally notwithstanding the force of the argument, the Talmud limits its application and forbids to punish on its sole basis.

The Talmud has the merit of explicating some universal features of the *a fortiori*: the *dayo* and the great force of the *a fortiori*; but the Talmud is more idiosyncratic in its limitation of the argument. In other words, the *dayo* is essential to any *a fortiori* within or without the Talmudic tradition: its great force is also independent of the Talmud. On the other hand, the Talmud puts forward a limitation instruction that is not universal but specific to some traditions.

5. Conclusion

Contrary to topical reductionism, the Talmud does not consider the *a fortiori* argument just as an item within the set of argumentation devices all of which would be defeatable, but as a stronger argument. Contrary to logical reductionism, the Talmud does not consider the logical validity of the argument alone, independently

of the context of utilization. In order to explain the *a fortiori* argument, this paper has focused on the necessity of the scalar dimension of arguments (orientation and strength) and on the two-dimensionalism of argumentation.

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