Towards a Reconsideration of the Tense-Aspect-Mood System of Tannaitic Hebrew

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1. Introduction

The goal of this paper is to provide a preliminary analysis of the Tense-Aspect-Mood (= TAM) System of Tannaitic Hebrew. In such a short study, it would be too ambitious to provide a full methodological framework and all the needed support for this proposal. My goals in this context are, therefore, much narrower: (1) to outline the methodology, especially regarding the choice of the corpus; and (2) to sketch out the proposal for the TAM system with the main theoretical motivations in favor of it. The updated results of this study reaffirm the basic description offered by Segal¹ and provide support for his analysis, while discussing some of the criticism it encountered. Before turning to the issue of the corpora,

- * The citations are according to manuscripts used for the Academy of the Hebrew Language's historical dictionary and are those found in *Ma'agarim*, the Academy's textual database. I will refer to variations between manuscripts only to the extent that they are relevant for the current discussion. I wish to thank Moshe Bar-Asher, Nora Boneh, Kevin Grasso, Aaron Koller, and Daniel Stökl for reading and commenting on previous versions of this paper.
- 1 Segal 1936.

and more specifically to the issue of genres, I wish to offer one brief note regarding the previous scholarship on the topic.

It is well-known that Late Hebrew² in general and Tannaitic Hebrew in particular, are under-studied in comparison with their older sister, namely Biblical Hebrew. This is even more noticeable in the subfields of syntax and semantics. This gap in the extent of the research is particularly remarkable when it comes to the topic of the TAM system, which stands at the heart of the current paper. While there is an enormous amount of literature with specification of genres and periods for the systems of Old Hebrew,³ in the context of Late Hebrew, rabbinic and non-rabbinic—other than passing remarks here and there and Segal's grammar⁴ and Azar's work on the syntax of Mishnaic Hebrew⁵—we have only the article by Sharvit,⁶ Mishor's unpublished PhD thesis,⁷ and a smattering of articles about specific tenses or pairs of tenses, such as Gordon, Mishor, Breuer, Qimron, Steiner, Reshef, and Tzvi, and the relevant sections in Mor.⁸

The difference, however, between the studies of the two periods is not only one of quantity. Mishor's seminal study,⁹ as a rule, ignores comparative and typological studies on the tense system, and is in the spirit

- In the use of the terminology, I distinguish between the history of the language as a linguistic system and the history of its written forms. The former conforms to an idealized periodization of the language and differentiates between Old Hebrew and Late Hebrew. The latter, however, bases the division on corpora thus resulting in the traditional characterization, namely Biblical Hebrew, Qumranic Hebrew and Rabbinic Hebrew (for further explanation on this distinction, see Bar-Asher Siegal 2015). The current discussion focuses on Tannaitic Hebrew, i.e., the language of the Mishna, Tosefta, and Halachic Midrashim, neglecting, for the time being, internal differences between these corpora.
- 3 For a recent review of the literature, see Notarius 2013:7–24.
- 4 Segal 1936.
- 5 Azar 1995:1–27.
- 6 Sharvit 1978.
- 7 Mishor 1983.
- 8 Gordon 1982; Mishor 1986; Breuer 1987; Qimron 1990; Steiner 1996; Zewi & Reshef 2009; Mor 2015.
- 9 Mishor 1983.

of Jespersen,¹⁰ who claims that the direction in the study of morphology (as opposed to syntax) is from form to meaning. Consequently, Mishor lists all functions of each and every form, without an attempt to provide a clear system. One can still find a similar approach in the most recent literature, as demonstrated in Mor's study of the Judean epigraphy.¹¹ The methodology of the more recent studies of the biblical language stands in contrast to this, as it is somewhat more aware of the general linguistic literature. It is sufficient to mention the works of Hatav¹² and Cohen,¹³ which are framed in the Reichenbachen logical framework. The lack of a general linguistic point of reference in the study of Late Hebrew affects the preciseness of the definitions, and the lack of typological background leads to seeing abnormality in what is in fact expected had the crosslinguistic surveys been at the linguists' disposal. (Section 7 concentrates on such phenomena in Tannaitic Hebrew.)

In the next section, I propose what is, I believe, one of the main reasons for the lack of such studies. Via this discussion, I will explain my choice for the corpus of my study. Section 2 presents a methodological discussion concerning the corpus that one should consult in the preliminary stages of the research. Section 3 introduces two approaches for the TAM system of Tannaitic Hebrew. Section 4 provides theoretical support for one approach, and in Sections 5–7 this approach is examined against the data from the Tannaitic corpus.

2. The Questions of Genre and of Corpus

There is, I believe, a good reason as to why studies of the TAM system are relatively infrequent in the area of Late Hebrew in general and Tannaitic Hebrew in particular, which has to do with the nature of the corpora. In

- 10 Jespersen 1924.
- 11 Mor 2015:278–307.
- 12 Hatav 2004.
- 13 Cohen 2013, and to some extent also Joosten 2012, although he states that it is not his intention "to fit" into a specific theoretical framework.

addition to the general philological problems that scholars of the rabbinic literature have to deal with, which affect this topic as well,¹⁴ the issue of genre makes the study of the TAM system even harder. The vast majority of the Tannaitic literature is legal;¹⁵ the Mishnah is for the most part a body of laws (and this is true with respect to the Tosefta as well), and the main goal of the Tannaitic midrashim is to draw the connections between the biblical sources and the laws.¹⁶ Furthermore, as Breuer notes,¹⁷ even descriptions of ritual ceremonies that allegedly took place in the Temple are not merely descriptions, rather they have a prescriptive goal to indicate how things should be done, based on the supposition that they were performed repeatedly in the same way in the past.¹⁸

Laws, by their nature, are expressions of modality, and as such their truth values do not depend on whether the eventuality occurs or not. Their location in time is different from regular indicative statements. In some theoretical frameworks, modals express quantification about "possible worlds." Thus, instead of describing events in the actual world, they convey expressions of how things should be in the "best worlds," and therefore express possible repetitive events and the desired consequences of them. Usually, in a discourse, there is an implicit deictic center that is formed in the minds of the interlocutors. Such a deictic center is the point in space and time that spatial and temporal deictic expressions refer to (for example, "here" and "now"). Laws, by contrast, are supposed to be

- 14 Mishor 1983, for example, constantly notes the variations in the tenses of the verbal forms between manuscripts for the same passage in the relevant texts.
- 15 Sharvit 1978 is well aware of this fact, and he notes that it is possible that his description of the TAM system is relevant only for the legal genre. Recently, Goldblatt 2016 examined the "predicative forms" in two tractates, paying attention to the fact that they are composed in a legal genre and to the ramifications of this.
- 16 This observation is naturally less relevant for the corpus discussed in Mor 2015, which is epigraphic, although much of the material consists of legal documents. These documents often include some narrative in describing the background for the specific legal situation.
- 17 Breuer 1987.
- 18 Cf. Rosen-Tzvi 2012 concerning that nature of the descriptions of such ceremonies.

eternal, thus the time of the event of the speech when they are proclaimed is most often insignificant and, putting it more generally, in most laws there is no deictic center of discourse when declaring laws. They describe a type of event and therefore it is of no consequence whether such an event took place in the past or may happen in the distant future.¹⁹

In consideration of this, it is inadvisable to consider legal examples in the first stages of a study concerning the TAM system in Late Hebrew. In order to illustrate the problems with such texts, let us compare, for example, two citations from the Tosefta, which discuss the ramifications of two possible purchases. In both laws, the root מנ״ (to purchase," "to acquire" appears in different tenses:²⁰

 כהן שקנה¹² עבר ולישראל אפי׳ אחר ממאה בו אינו אוכל בתרומה. אשת כהן
 כהן שקנת²² עברים. ועבריה שקנו עברים. הרי אילו אוכלין בתרומה.
 A priest who acquired a slave along with an Israelite—even if [the Israelite owns] one part in a hundred—the slave may not eat *teruma*. A priest's wife who acquired slaves, and her slaves who acquired slaves—all of these may eat *teruma (t. Yebam.* 9, 8).

2. **הקונה** אילן אחד בתוך שדהו של חבירו הרי זה מביא ולא קורא מפני שלא קנה קרקע. דברי ר' מאיר. וחכמים אומ. לא מביא ולא קורא. One who acquires a single tree in the middle of his fellow's field must bring [the first fruits as *bikkurim*] but does not recite [the declaration on bringing the first fruits], since he did not acquire land—this is the view of R. Meir. And the Sages say, he does not bring or recite (*t. Bik.* 1, 2).

- 19 There are laws, or modals that can be restricted for a certain time, but these are the exceptions. See Guéron & Lecarme 2008 for interaction of tense and modality.
- 20 The verbs in these examples appear in embedded clauses, which may also obscure the picture. For our purposes, they simply illustrate the problems of considering examples from legal texts.
- 21 In MS Erfurt, the form is שהיקנה, still in the suffix-conjugation.
- 22 In MSs Erfurt and in the first printed edition, the form is שקנתה Both forms are equal for the current discussion.

The source in (1) has the suffix-conjugation, קַנָּה, while (2) has the participle, הַקוֹנָה, which follows a definite article. At least prima facie it seems unproductive to seek any significant distinction between the two sources. Accordingly, it is very likely that one should not look for any differences between (1) and (2), as it is only the case that there are various strategies to express situations in a legal language. The first is to be taken as a discussion about a case concerning an event as if it had already occurred, and the other is to indicate the recurring relevancy of the law.

Similarly, ethical statements portray a desired genericity, which one can express in whichever way generic statements are asserted, or as a statement about some future events. Thus, once more, it seems inadvisable to establish our interpretation of the TAM system with a study that focuses on a tractate such as *Abot*, or other sources that articulate morals. Consider, for example, the differences between (3) and (4), again with the root """;

ג. מנ׳ כשאתה קונה לא תהא קונה אלא עבר עברי. Whence do we learn that *when you purchase a slave*, you should not purchase but a Hebrew one? (Sifre Deuteronomy 117)

4. מיכן אמ. יקנה אדם חבר לעצמו שיהא קורא²² עמו ושונה עמו אוכל עמו ²⁴. ושותה עמו וגולה לו כל סתריו. וכין הוא אומ. "והחוט המשולש" וגו.²⁴ From here they (the sages) have said: *One should acquire* a friend for himself, to study Torah with him, to study Mishnah with him, to eat with him, to drink with him, and to reveal his secrets to him, as it is said, "A threefold cord [is not quickly broken]" (Ecclesiastes 4:12). (Sifre Deuteronomy 305)

24 According to Finkelstein 1969:323–24, this passage is a late addition. He, however, admits that this passage appears in all variants of this text, and therefore there is no positive reason for his claim.

²³ This is the version in MSs Berlin and Rome. MSs Oxford and London have להיות and the Venice printed edition has להיות קונה.

Although the source in (3) speaks about an actual legal purchase, and the passage in (4) discusses a metaphorical acquisition, both texts are similar in providing some moral instructions—the former that one should seek to have slaves from his own nation, and the latter is about acquiring friends. Both sources, however, use different strategies for expressing their deontic statement: (3) sounds like an on-going dialogue with the reader/hearer; while (4) is formulated as a report of a generic instruction In essence, however, both sentences are similar.

It is therefore only natural that the focus of our study must be, at least initially, on narratives, as the sequence of events is crucial for comprehending the logical setting of the story. Although the size of such a corpus in the Tannaitic literature is very limited, one can collect a workable selection from at least two types of sources:

a. In the legal midrashim, in what Levinson calls "The Rabbinic Exegetical Narratives," with the following characterization:²⁵

The exegetical narrative is composed of a story which simultaneously represents and interprets its biblical counterpart. Its singularity resides precisely in this synergy of narrative and exegesis. As exegesis, it creates new meanings from the biblical verses, and as narrative, it dramatizes those meanings by means of the biblical story world. (p. 498)

b. Within the legal contexts one should focus on contexts where a story is narrated in order to justify some element of the law. The legal sources often provide such contexts in the framework of מעשה,²⁶ and in parables which accompany the legal resolutions. I do not include under this category stories which describe customs or repetitive rituals.

²⁵ Levinson 2004.

²⁶ For a description and a characterization of this type of narrative discourse, see Shemesh 2008.

The analysis that this paper presents relies on all of the texts that fall under this category in Sifre Numbers. I also examined this analysis against all the examples found in the relevant literature, mostly in Mishor,²⁷ the major scholarly work dedicated to the TAM system in Tannaitic Hebrew.

3. A Proposal for the TAM System in Tannaitic Hebrew

I turn now to the second and main goal of the paper, which is to outline a proposal for the TAM system in Tannaitic Hebrew, according to which the verbal system of Tannaitic Hebrew systematically marks both aspect and tense. I will present an approach that differs from most previous descriptions of Late Hebrew, and I will introduce the theoretical motivations that support the approach advanced in this paper.

Tannaitic Hebrew has both simple and compound verbal expressions. The prefix-conjugation (יקטל) and suffix-conjugation (קטל), as well as the participial declension (קוטל), belong to the former category (I will not include the imperative in the current discussion). The compound expressions consist either of combinations of the participle with all simple forms of the verb י" and, according to some, the declined form of the adjective with an infinitive.

While Mishor²⁸ never attempts a full coherent system, Sharvit does.²⁹ Following Kutscher,³⁰ Sharvit argues that the verbal system in Tannaitic Hebrew primarily expresses tense, while marking aspect through the addition of forms of the verb הי״י "to be." Irrealis moods are regarded as separate. The following table summarizes this position:

- 27 Mishor 1983.
- 28 Ibid.
- 29 Sharvit 1978.
- 30 Kutscher 1968:402.

Table 1: Sharvit's TAM System for Tannaitic Hebrew

	Past time: Suffix-conjugation	
Indicative	Aspect marked by הי"י	
(Realis mood)	Present/Future time: Participle ³¹	
	Future time: עתיד + infinitive	
Irrealis mood	Prefix-conjugation	

The proposal I would like to advance is in many respects similar to Segal's, according to which the verbal system of Tannaitic Hebrew systematically marks both aspect³² and tense.³³ The primary opposition is between *perfective* and *imperfective* aspect. The terminology I use here follows Reichenbach:³⁴

 Point of speech (S)—the time of the utterance Point of event (E)—the time of the occurrence of the event Point of reference (R)—the time that serves as a point of reference for the speaker

Tense refers to the time at which eventuality takes place and its relation to the time of the speech. More specifically, they are deictic temporal relations, as they relate the reference time (R) to the time of utterance/ speech (S). Accordingly, the following describes the three main tenses:

- 31 For an updated review of the literature regarding the functions of the participle in Tannaitic Hebrew, see Zewi & Reshef 2009:321–23.
- 32 In Segal's (1936:124–25) description, the simple forms indicate "simple actions," while the compounds indicate "durative and repetitive actions." The bare-participle is mentioned twice: once as an indicator of the present tense in general, and once as the form for the durative and repetitive action in the present tense. Thus, the current proposal is mostly an updated version of Segal's proposal, with some further theoretical elaborations.

34 Reichenbach 1947.

³³ Ibid. 124-32.

6. Past: R < S—Reference time precedes speech time Future: S < R—Reference time follows speech time Present: R = S—Reference time overlaps with speech time

Aspects, in Reichenbach's terminology (and in light of Klein³⁵), relate the reference time to the event time.³⁶ When speaking about grammatical aspects, it is crucial to distinguish between the perfective and the imperfective aspects. Thus, following Smith,³⁷ the perfective viewpoint includes both endpoints of a situation, while the imperfective viewpoint focuses on stages that are neither initial nor final, as illustrated in (7):

- a. Imperfective: R ⊆ E Reference time propertly included in the event time
 - b. Perfective: $E \subset R$ Event time included in the reference time
 - a'. Imperfective: ---[-----]_R-----_E
 - b'. Perfective: $[-----_E]_R$

Armed with these definitions for tense and aspect, it is possible to provide the following proposal as to what the grammar of Tannaitic Hebrew encodes with respect to the TAM system:

- 35 Klein 1994, however, speaks in different terms. For him, one should distinguishes between Topic Time (= TT, the time for which a claim is made), the Time of Situation (= TSit, the time at which the eventuality took place) and the Time of Utterance (TU). Tense, accordingly indicates the relationship between TT and TU and aspect is about the relationship between TT and TSit, thus both tense and aspect codify temporal relations. They differ with respect to the time spans—the "relata"—between which these relations obtain (Klein 1994:59).
- 36 In the current account, I ignore the lexical aspect of the verbs. As already noted by Smith 1991, the perfective aspect is somewhat different for each lexical aspects, especially with regard to the end-point. Recently, Altshuler 2014, proposed a different analysis for the main distinction between the perfective and imperfective aspects, taking into account the semantics of the lexical aspects of the verbs.
- 37 Smith 1991 proposes formal ways to capture the more intuitive definition of the imperfective, found in Comrie 1976, who sees the imperfective as depicting an eventuality without indicating its boundaries, while the perfective depicts an eventuality in its entirety.

	Past	Present	Future
Imperfective	Participle + היה	Participle	Participle + יהיה
Perfective Suffix-conjugation			Prefix-conjugation

Table 2: Current Proposal

According to the view presented here, the verbal forms with the personal conjugation (the prefix and suffix) always indicate tense: suffixconjugation for past time and prefix-conjugation for future time, while the participle always indicates the imperfective aspect. Thus, when only the suffix/prefix-conjugation appears, it usually marks the perfective aspect, but to be more accurate it is unmarked in terms of the aspect as it may expresses both aspectual values, perfective and imperfective.³⁸ When they appear with the participle (i.e., in the root הייי as an auxiliary) the verbal phrase always marks the imperfective aspect and the conjugated form denotes the tense. Thus, it is clear how this system is constructed from a compositional point of view: the aspect is determined first (whether it is imperfective or not) and then a modification in terms of the tense (past/ future; as for the present see below). Accordingly, it is also clear why the conjugated forms, without a participle, are unmarked in terms of the aspect, since only the participle positively determines the aspect, as is illustrated in the following scheme:

8. Past_{suffix-conjugation} Tense[Present Aspect[+/- imperfective_{participle}]] Future_{prefix-conjugation}

38 From a preliminary review of the data, much depends on the type of the verb and its lexical aspect. See Smith 1991, Dahl 1985, and Altshuler 2014 for the notion of "neutral aspect." For a discussion of this in the context of Modern Hebrew, see Boneh 2016.

The main claim of this paper consists of the following two arguments:

a. The approach illustrated in Table 2 has theoretical advantages over the alternative approach, which is illustrated in Table 1. Therefore, from a theoretical point of view the analysis in Table 2 should be our first choice.

b. The approach illustrated in Table 2 is indeed consistent with the relevant data from the relevant Tannaitic sources (the corpus which we described in Section 2) and therefore it should indeed be preferred as a description of Tannaitic Hebrew's TAM system.

In the next section, I will provide the reasons behind the argument in (a). I will then turn in Section 5 to provide support for the argument in (b) and will demonstrate how the data in Table 2 fit the examples from the relevant corpus. However, when comparing the two tables one will notice that Table 2 has more forms than Table 1. This and other lacunas will be treated in Section 6. Finally, in Section 7, I will deal with problems that were raised regarding the analysis that stands behind Table 2 in the past literature on this topic. By solving these problems, I will complete the support for the argument in (b) that the analysis illustrated in Table 2 is consistent with the data.

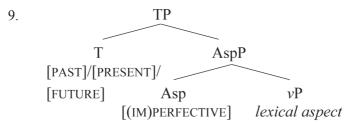
4. The Theoretical Advantages of the Approach Presented in Table 2

According to Sharvit and Mishor (Table 1), only the suffix-conjugation forms and the participle indicate tense. When the auxiliary conjugated verb "" is added to the participle, it provides the aspect (but the verb "" itself indicates the tense). Thus, there is nothing compositional in the combination of the participle with the auxiliary verb, since the participle itself indicates the present/future tense ("" t_{tense} + Participle_{present/future} \rightarrow Tense-Imperfective).

As demonstrated in (8), in the current proposal (Table 2) this construction is compositional: first, the participle provides the aspect and then all finite forms add the tense.

From a syntactic point of view, the current proposal follows what is

commonly agreed upon cross-linguistically—that the tree in (9) indicates the hierarchical order between the temporal categories' tense and aspect (inter alia Demirdache and Uribe-Extebarria 2000; Pancheva 2003) Accordingly, the grammatical aspect is composed of an aspect-head (AspP) which embeds a vP with a particular aktionsart. The aspect itself is directly embedded under the tense head (TP), and the structure is the following:



The aspect-head, accordingly, is under the scope of the tense-head, and this is exactly what we see overtly in Tannaitic Hebrew. Only after the aspect is determined (+/- participle), then the conjugated form determines the tense of the Verbal Phrase.

In addition, Boneh³⁹ demonstrates that the hierarchical order of functional categories represented in (9) predicts that languages that overtly mark the category of aspect are richer in analytic constructions as there are two functional categories in use, hence the requirement of two syntactic positions—one to host the auxiliary (which indicates the tense), and the participle (to mark the aspect). Accordingly, if Tannaitic Hebrew indeed marks the category of aspect, it is not surprising that in this period the analytic constructions became commonly and systematically used.

I would like to briefly mention several other considerations in support of the system described in Table 2 from a historical point of view. First, it is important to note that this description is similar to the analysis of Official Aramaic offered by Cohen⁴⁰ and to my own analysis of Jewish

³⁹ Boneh 2003.

⁴⁰ Cohen 1984:432, and cf. Gzella 2004.

Babylonian Aramaic.⁴¹ Accordingly, the development in the TAM system of Tannaitic Hebrew represents a broader regional development. Second, the analysis of the verbal system endorsed here makes better sense than the standard one from a historical point of view as well. In its original nominal use, the participle denoted a subject engaged in the activity of the verb, and it describes him or her as being in a state of performing the action denoted by the verb. A "state" is in many senses conceptually close to the imperfective aspect. Therefore, it seems more likely that the participle is grammaticalized to denote imperfective aspect rather than a specific tense (present-future).

In light of the various considerations indicated in this section, even if the data is consistent with both approaches described in Section 3, the one illustrated in Table 2 has some theoretical advantages.

5. The TAM System of Tannaitic Hebrew in Practice

This section aims to offer a brief demonstration of how the relevant verbal forms indicate tense and aspect; I will begin with the former category. Examples 10–13 illustrate Levinson's category of Rabbinic Exegetical Narratives with sequences of events.⁴² They depict what happens in the biblical events and set them as the present of the story. As we can see in these examples, there is a clear speech event set as the present, and there are events prior to that point which brought about the present state of affairs and ramifications for the time that would follow.

10. ר׳ שמעון אומ. במחנה **נשתיירו**. לפי שראו את משה שמברר⁴³ לו את הזקנים אמרו. אין לנו כדיי לגרולה זו. הלכו והטמינו את עצמן. א׳ להן המקנים אמרו. אין מיעטתם את עצמכם אני אגדל אתכם יותר מכולם״.

- 41 Bar-Asher Siegal 2016:176–184.
- 42 Levinson 2004.
- 43 In Ms London שהיה מברר. The aspect is the same in all variants. The difference has to do with the fact that often when it is clear from the context that the passage is in the past tense, there is no need to indicate this with the verb "" prior to the participle. See the discussion below around example (12).

R. Simeon says: "They *remained* in the camp because they *saw* Moses *choosing* the elders. They *said*: 'We are unworthy of such high office.' They *went* and *hid out*. The Omnipresent *said* to them: 'You *made yourselves small*. I *shall make you greater* than all of the others.'" (Sifre Numbers 95)

This story indicates several sequences of events, each beginning after the completion of the other, and all appear in the suffix-conjugation:

-----[saw]---[said]---[went]---[hid out]---[remained]---[God said]----

In the quotation of what The Omnipresent says, His saying sets the Speech Time, and consequently there is a distinction between what happened in the past, prior to this speech time—"You made yourselves small"—and what follows this speech time, the result in the future—"I shall make you greater." This distinction is indicated with different verbal forms and fits the prediction of Table 2.

I will only note here that the description of the action that in the relevant passage has neither initial-point nor end-point. "The choosing of the elders" has the participial form: מברר , as expected.

.11. כיון שמת אהרן אמ. "מת⁴⁴ אהרן כהן גדול שלהם הלך התייר הגדול שלהן.
.11. ועמוד ענן שהיה עושה מלחמה. הרי: שעה שנלך ונלחם בהן."
As Aaron *died*, they said, "Aaron their high priest *has died*.
Their principal guide has died. So too, the column of cloud *that used to battle for them*. In that case, the hour has come for us that we *shall go forth and do battle* against them." (Sifre Numbers 82)

In this alleged quotation from the enemy of Israel following the death of Aaron, there is a clear distinction between the events that took place in the past ("has died") and the intended actions of the future ("we shall go forth

⁴⁴ המה "has died" is probably perfect. Perfects are important to the understanding of construction of narratives. However, it requires a longer discussion and is beyond the scope of this short paper.

and do battle.") The past and the future are relative to the speech time of the enemy. This distinction is marked with the difference in the verbal forms. The imperfective action ("used to do battle for them"), regardless of whether this is a description of a habitual (see the discussion following the next example), the aspect is marked with the participle, while the tense is marked with the verb π , the past form of π .

.12. א׳ להם המקו׳ם. ״אם כשהייתם בארץ ערבה ושוחה זנתי ופירנסתי לכם. עכשיו שאתם נכנסין לארץ טובה ורח׳ ארץ זבת חלב ודבש על אחת כמה וכמ׳ שאזון ואפרנס אתכם.״

The Omnipresent said to them, "If when *you were* in a land that was pleasant and abundant, I *fed* and *provided* for you. Now, when you enter the good and broad land, the land flowing with milk and honey, all the more so that I shall feed and provide for you!" (Sifre Numbers 82)

This paragraph clearly divides God's statement into three reference times, and the verbal forms are as expected: the time that precedes the speech time ("you were in the land," "fed," "provided") is indicated by the suffix-conjugation; the current events, which are simultaneous with the speech event ("you enter") are described with the participle; and the time that follows the speech time ("I shall feed and provide for you") is denoted with the prefix-conjugation. As this is a description of God's regular actions, it is an expression of habituality.

I did not systematically examine the expressions of habituality in Tannaitic Hebrew, but would like to offer some preliminary observations on the subject. In this corpus, we encounter descriptions of habituality with the participle and with the prefix- and the suffix-conjugations. In the next paragraph, I will explain why this is not surprising. For present purposes, however, one must note that it is expected that the tense will be indicated in the regular way, and that therefore descriptions of repetitive events, such as the sentences in (12), are also relevant for the discussion of the category of tense in Tannaitic Hebrew. (Needless to say, a future study of expressions of the habituals in Late Hebrew is necessary for a complete understanding of the TAM system.)

The following is the theoretical background for these assumptions: First, languages do not necessarily mark habituality morphologically or syntactically.⁴⁵ Second, Boneh and Doron argue that habituality is in a sense a summation of events.⁴⁶ Furthermore, according to their analysis, habituality is, semantically speaking, similar to an adverb. As such, it can modify both imperfective and perfective aspects, and therefore there are also perfective habituals.⁴⁷ Finally, Sofer demonstrates, in the context of Biblical Hebrew, that habituals can be expressed with the forms that express the perfective aspect as well as those that denote the imperfective aspects.⁴⁸

Another point to note in this source is that the words about the future are placed in the mouth of God, for whom, in the eyes of the narrator, epistemologically speaking, the future is as predictable as its knowledge about past and present events. In all these cases, the future is described with the prefix-conjugation (and not in the participle as is expected according to the system illustrated in Table 1, when it is not irrealis).

13. משל למ׳ הר׳ רומה. למלך שנשבה בן אוהבו. וכשפראו לא פראו לשם בן אלא לש׳ הר׳ רומה. למלך שנשבה בן אוהבו. וכשפראו לא פראו לשם בן אלא לשם עבד.כשיגזור ולא יהא מקבלו יומר לו. ״עבדי אתה״. כיון שנכנס למרינה אמ׳ לו. ״נעול לי סנדליי וטול לפניי כלים והולך למרחץ״. התחיל הבן ההוא מנתיק. הוציא עליו שטר. א׳ לו. ״עבדי אתה״. כך כשפרה המקו׳ם את זרע אברהם אוהבו לא פראו לשם בנים אלא לשם עבדים. כשיגזור ולא יהו מקבלין עליהן או׳ להם. ״עבדיי אתם״. כיון שיצאו עבדים. כשיגזור ולא יהו מקבלין עליהן או׳ להם. ״עבדיי אתם״. כיון שיצאו

עבדים. כשיגזור ולא יהו מקבלין עליהן או' להם. ״עבדיי אתם״. כיון שיצאו למדבר התחיל וגזר עליהן מקצת מצוות קלות ומקצת מצוות חמורות כגון שבת ועריות ציצית ותפילין. התחילו ישר׳ היו מנתקין. א' להם. ״עבדיי

אתם. על תניי כך פריתי אתכם. על תניי שאהיה גוזר ואתם מקיימין". The matter may be compared to the case of a king whose ally's son was taken captive. When the king *paid the ransom*, he *did not redeem him* as a son but as a slave, so that in case in the future he *will make a decree* and he (= the son) *will*

⁴⁵ Dahl 1985.

⁴⁶ Boneh & Doron 2013.

⁴⁷ Filip & Carlson 1997; Boneh & Doron 2010.

⁴⁸ Sofer 2015.

not accept it, he will tell him, "You are my slave." When he came into a city, he said to him, "Tie my shoe-latch, carry my clothing before me, and bring them to the bath house." The son began to complain. The king produced the document and said to him, "You are my slave." So when the Holy One redeemed the seed of Abraham, his ally, he *redeemed* them not as sons but as slaves. When he will make a decree and they would not accept it, he may say to them, "You are my slaves." When they (= the people) had *gone forth* to the wilderness, he *began* to make decrees for them involving part of the lesser religious duties as well as part of the more stringent religious duties, for example, the Sabbath, the prohibition against consanguineous marriages, the fringes, and the requirement to don tefillin. The Israelites began to complain. He said to them, "You are my slaves. It was on that stipulation that I redeemed you, on the condition that I may make a decree and you must carry it out." (Sifre Numbers 115)

Again, all of the verbs in the narrative refer to past events and, as such, they appear in the suffix-conjugation. However, in this text there are cases of "past posterior," that the event is subsequent to the reference time but still prior to the speech time. The description of the past posterior, the future of the past (for example: "so that in case in the future he will make a decree"), appears in the prefix-conjugation.⁴⁹

Interestingly, while the description of the "acceptance of the decree" is always described in the imperfective (אתם מקיימין, יהו מקבלין, יהא מקבלין, יהא מקבלין, יהו מקיימין, יהו מקיימין, יהו מקבלין, יהא אהיה, יגזור, יגזור, יגזור, יגזור). While, in the first two occurrences, the description is with the prefix-conjugation, in the last occurrence it is in the participial form. It is possible that it is related to the fact that the last occurrence is stated as a condition.

⁴⁹ See Comrie 1985 for the notion of relative tenses.

Example (14) illustrates a text from the genre of מעשה, in the Mishnah.

14. מעשה שהיו שנים ש[וו]ים ורצים ועולין בכבש. דחף אחר מהן את חבירו ונשברה רגלו. וכשראו בית דין שהן באין לידי סכנה התקינו שלא יהו תורמים את המזבח אלא בפייס.

It once happened that two *were* even as they *ran* to *mount* the ramp. One of them *pushed* his fellow and he *broke* his leg. When the court *saw* that they incurred danger, they *made* a decree that the altar *will be cleared* only by lot. (*m. Yoma* 2, 2)

This example portrays a sequence of events in which each has initial and end-points (pushed, broke the leg, made a decree), and they all take place in the past. The running and mounting on the ramp have no beginning, and not even a clear ending, and thus they appear in the participle. The content of the legal decision is again a case of "past posterior," referring to the future or the time of the legal decision, hence the verb verb verb is in the prefix-conjugation.

I should note also that in the sequence of the participles שווים "being even," עולין "running" and עולין "mounting," only the first form follows the verb הרצים ". This is a general rule, that once the tense is determined (with a conjugated verb), it is not required to have this verb repeated before each and every participial form.

So far, our focus has been on the category of tense, with only a few notes about the aspect. The following examples illustrate how the participle (with and without the auxiliary verb "") indicates the imperfective aspect. The contrast between the sentences in (15)–(16) with those in (17)–(18) demonstrates nicely the difference in aspect.

15. משהיגדיל הבן הה' א' לו לאפיטרופס. ״תן לי כסף וזהב שהניח לי אבה בידך.״ **עמד**⁵⁰ **ונתן לו משלו** כדי פרנסתו. התחיל אותו (ב)הבן מיצר. א' לו.

50 It is possible that the verb עמ״ד "stand" in this example, does not denote an actual action of standing. Instead, one can consider this to be a pseudo-coordinative verb (sometimes called hendiadys), indicating the beginning of an activity. Biblical

"הרי כל כסף וזהב שהיניח לי אבה בידך." א' לו. "כל מה שנתתי לך לא נתתי לך אלא משלי. אבל כל מה שהניח לך אביך הריהו שמור."

When the son came of age, he said to the guardian, "Hand over to me the silver and the gold that my father had left with you for me." But the guardian, out of his own money, *stood* [firm] and gave him only enough to maintain himself. The son then began to press him, saying, "You have all that silver and gold that my father had left for me!" He replied, "Whatever I have given you was out of my own. What your father had left for you has been safely preserved." (Sifre Deuteronomy 11)

16. אמ׳ ר׳. ״גדולים מעשים אילו. שבשעת צרתן הצמיחו שלשה פסוקין של צידוק הדין מה שאין כן בכל הכתובין. כיוונו שלשתן את לבן וצידקו עליהן את הדין.״ עמד פלוסופוס על הפרכיא שלו. אמ׳ לו. ״אל תזוח דעתך ששרפת את התורה.״

Rabbi (Judah the Prince) said: "How great were these righteous persons, in that at the time of their trouble they invoked three verses justifying (God's) judgment, which are unequaled in the Scripture. The three directed their hearts (toward God) and accepted the justice of God's judgment." A philosopher *stood up*, protested to the prefect, saying, "My master, do not boast that you have burned the Torah, for it has now returned to the place whence it had come—its Father's house." (Sifre Deuteronomy 307)

17. "ויאמר משה אל העם אל תיראו." הרי משה מזרזן. להודיע חכמתו היאך היה עומד¹⁵ ומפייס כל אותן האלפים וכל אותן הרבבות. עליו מפורש בקבלה. "והחכמה תעז לחכם."

"Moses said to the people, Do not fear" (Exod 14:13). Look, Moses was encouraging them. This teaches his wisdom, how he would stand and pacify all these thousands and myriads.

51 In Ms Erfurt העומר.

Hebrew demonstrates a similar phenomenon with the verb קו״מ "stand" (see Dobbs-Allsopp 1995). I wish to thank Aaron Koller for this reference.

Of him it is explicit in the Prophetic writings: "Wisdom is a stronghold to the wise." (Qoh 7:19) (*Mek.* Bahodeš, 9)

.18. פעם אחת היינו יושבין בבית המדרש לפני ר' עקיבא והיינו קורין את שמע ולא היינו משמיעין לאזנינו מפני קסדור אחד שהיה עומר על הפתח. אמרו לו. אין שעת סכנה ראיה.

Once we were sitting in the bet midrash in front of R. Akiva, and we were reciting the Shema', and not saying it loud enough for our ears to hear, because of this one quaestor who was standing by the doorway. They said to him, times of danger are no proof (t. Ber. 2:13).

The standing event in (18) describes an interval of time in which the quaestor was upright, without indicating the initial or the endpoint of this interval. The relevant sentence in (16), in contrast, describes a point at which the philosopher stood up.

Earlier, we saw an example of the participle without the auxiliary verb π'' (10) and various examples with the verb π''' in the suffix-conjugation indicating past tense (11–14) and (17–18). We encountered one example with the prefix-conjugation (13), and there are not many of them. I would add one more; despite the fact that it is from a legal context, it illustrates nicely how tense and aspect interact in the periphrastic construction:

19. שלא תהא הבהמה עוברת בשוק ויאמרו. ״זוון היא שניסקל איש פל׳ על ידיה״.

So that the beast should not go through the market and people would say: "This is the beast by reason of which so-and-so was stoned." (*m. Sanh.* 7, 4)

The reference time (going through the market) is only part of the event time. It does not describe either the beginning or the end of the walking; it only matters that it overlaps with the speech event in which one may say (in the future): "This is the beast by reason of which so-and-so was stoned."

In the context of a discussion about the aspect indicated by the participle, it must be emphasized that the participle in Tannaitic Hebrew indicates the imperfective aspect and not progressive. The progressive,

which denotes an action in progress (inter alia Dahl),⁵² excludes stative predicates while the imperfective does not. Thus, as one can see in (20) the participle appears in Tannaitic Hebrew with the verb "ר"ע" "to know."

20. וכי מנין היתה יודעת מרים שפירש משה מפירייה ורבייה? Now, how did Miriam know that Moses had ceased to have sexual relations with his wife? (Sifre Numbers 99)

In the English translation of this sentence, the compound מנין היתה יודעת מנין היתה מנין היתה מנין היתה is "how did Miriam know?" and not "How was Miriam knowing?" since the English participle expresses progressive aspect.

In this section I have only demonstrated how the description of the TAM system in Table 2 fits the data in the relevant corpus from Tannaitic Hebrew. At this point we have support for the two parts of the main claim of this paper (Section 3):

- 1. Table 2 has theoretical advantages (Section 4).
- 2. It fits the data, to the extent that has been examined so far.

In Section 7, I will complete this discussion by considering various claims that were raised against Segal,⁵³ which supposedly stand against the approach illustrated in Table 2 as well.

6. A Few Short Clarifications

Table 2, which summarizes the proposal of this paper, is missing some of the categories that appear in Table 1 (the standard proposal). It also does not have a form for the perfective aspect in the present tense. The goal of this section is to explain these lacunas.

6.1 Aspects in the present tense

As in various other languages, such as Classical Greek, no aspectual opposition exists for the present. This is expected given the fact that

- 52 Dahl 1985.
- 53 Segal 1936.

descriptions of the present tend to be imperfective by their nature. The reason for this is that the reference time, which is simultaneous with the speech time, does not include either the initial point of the event (which is naturally prior to the speech event) or the final point of the event (which follows the time of the speech). I will illustrate this with examples (21) from Modern Hebrew⁵⁴ and the translation of these sentences into English:

- 21. a. אכלתי את התפוח I ate the apple
 - b. אני אוכל את התפוח I am eating the apple
 - c. אני אוכַל את התפוח I will eat the apple

While in the past and in the future the default reading is of a perfective aspect (especially since the lexical aspects of this sentence is of accomplishment), in the present tense such a sentence neither indicates the initial point of the event (which took place in the past) nor its endpoint (which will be in the future). The sentence in the present indicates that the speaking event is part of an interval for which it is true to speak about an event of eating an apple, an event performed by the speaker.

6.2 Complex verb cluster: עתיד ל and modal forms

Unlike in the system described in Table 1, in which the complex verb cluster עתיד ל is part of the TAM system,⁵⁵ according to the description in Table 2 the compound consisting of the adjective עתיד followed by the infinitive, is not part of the TAM system. In my approach, this construction is what is called in the literature "lexical future,"⁵⁶ a lexical way to

- 55 Cf. inter alia Azar 1995:18–20.
- 56 Inter alia Klein 1994:114–16.

⁵⁴ For a recent analysis of the TAM system of Modern Hebrew, and the review of the recent literature on this topic, see Boneh 2016.

indicate that events will take place in the future. In a similar way, future events are described in compounds with the noun סוף "end"+infinitive, and in Amoraic Hebrew with the participle עומד "standing"+infinitive.⁵⁷ While these constructions indeed indicate a reference relevant to the time of the speech event, they do so in a lexical way and not in a grammatical way.

Furthermore, in this scheme, mood plays no role in structuring the verbal system of Tannaitic Hebrew (leaving the imperative aside). The verbal expressions marked as modals are certain periphrastic constructions such as "רוצה" + infinitive; or רוצה + infinitive.⁵⁸

7. The Differences between the Two Analyses for TAM System of Tannaitic Hebrew

The two descriptions portrayed in Tables 1 and 2, differ, first of all, concerning the function of the prefix-conjugation: whether the prefix-conjugation indicates irrealis mood or the future tense. Furthermore, our explanation of the participle differs from the other position with reference to events in future time.

Hypothetically, one could decide between the two approaches in several ways, among them to examine the following facts: (1) whether the participle is used to describe future events; (2) whether the prefix-conjugation is used to describe only irrealis events, or past events as well.

Considering this, one might think that the variations between the *Mechilta* and the *Mechilta de-Rashbi* in examples (20) and (21) summarizes the differences between the two approaches, and that perhaps there is some variation within the Tannaitic sources:

⁵⁷ Mishor 1983:324–29.

⁵⁸ See Azar 1995:91–97 for a review and a discussion concerning these types of constructions.

22. "ויהי לי לישועה". היה לי ויהיה לי. היה לי לשעבר ויהיה לי לעתיד. דיהיה לי יויהיה לי "שועה". the suffix form refers to the past and the prefix form refers to the future tense. (*Mek*, Shira 3)

23. "ויהי לי." היה לי והווה לי. היה לי לשעבר והווה לי לעתיד לבוא. דיהיה לי והווה לי"—the suffix form refers to the past and the participle form refers to the future tense. (*Mek. de Rashbi*, 15:2)

In these parallel texts, the content is similar; however, while in one the future is marked with the prefix-conjugation (22), in the other it is marked with the participle (23). The following discussion will reveal how both texts are consistent with both approaches and what led to the current analysis.

7.1 The function of the prefix-conjugation

As noted, according to the approach presented in Table 1 the prefixconjugation indicates irrealis mood, while according to the one portrayed in Table 2, it is a marker of the future.⁵⁹ It was noted earlier (Section 5), regarding example (12), that the prefix-conjugation is used also when it is determined that the event in the future will take place, a fact in support of my approach.

Furthermore, and considering this issue from a more general perspective, the fact that the form that expresses the future time is modally tinged is natural since, epistemologically speaking, every reference to the future time is less certain than references to the present or the past. Thus, an indication that a morphological category is modal is almost superfluous if the events it denotes are always after the speaking event.⁶⁰ In consideration of this, it is important to mention that, in fact, both Mishor and Azar admit that in almost all cases the prefix-conjugation denotes

⁵⁹ Qimron 1990 and Steiner 1996 also agree with Segal 1936 that the major function of the prefix-conjugation is to indicate the future tense.

⁶⁰ See Dahl 1985:103–08.

future events.⁶¹ Mishor even acknowledges that it appears in contexts which seem to be indicative and without any modal implications. He, however, claims that there are several contexts in which the reference time precedes the speech time (= past) and the verbal form denoting these events is in the prefix-conjugation. However, his evidence is far from being conclusive, as they are of two types:

(i) Speculative events, in which the reference time can either be counterfactual and therefore anterior to the speech time or be a possibility in the future, as for example is the case in the following example:

.24 גמרו את הדבר היו מכניסין אותן. הגדול שבדיינין +או<׳>. "איש פל׳. אתה זכיי. איש פל׳. אתה חייב״. מניין כשיצא לא יאמר. "אני הוא מזכה וחבריי מחייבין. ומה אעשה ורבו עליי״. When the judges reached their decision they brought in the litigants. The chief among the judges says, "You, so-and-so, are not guilty," or "You, so-and-so, are guilty." And from where

do we know that after one of the judges has exited, he may not say, "I am the one who acquits, while my fellows convict, but *what may I do*, for my fellows outvoted me?" (*m. Sanh.* 3, 7)

According to Mishor, the Hebrew text מה אעשה should be translated as "what could I have done?";⁶² however, considering the issue of the relative time (see above next to example [13]) it is crucial that מה אעשה be taken also as the future with regard to אני הוהבריי מהייבין "I am the one who acquits, while my fellows convict." Thus, given that the previous sentence is in the present, it *can* easily be translated as "what is left for me to do (in the future, relative to this action)"? As such it would be taken as a relative tense.

(ii) Discussion about alternative events that could have happened instead of the actual events in the past:

61 Mishor 1983:96–103 and Azar 1995.

62 Mishor 1983.

25. לפי שהיה יורד מן הרקיע יכול יהיה ⁶³ יורד צונין. ת'ל "חם". Since it would come down from heaven, one might think it would come down cold, but it says, "warm." (*Mek. Va-yysa*', 3)

This formula of raising an option—just for the sake of rejecting it later based on evidence from the verses, using the expression כול יהיה/יהא "is it possible"—is common in the legal discussion about the verses, as source (26) illustrates:

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26. "הפשיט" "וניתח." יכול יהא מפשיט אבר אבר ומנתח. תל'לו' "העולה."
מפשיטה כולה ואחר כך מנתחה.
[It says in Lev 1:6] "he shall strip" and "he shall cut up." Is it
possible that he should strip each limb, one at a time, and then
cut it up? The verse teaches, "the burnt offering"—he must
strip the entire thing and then cut it up. (Sifra Nedava 5:2)
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As noted earlier, such legal contexts are not situated in time, and therefore can be read as imagining a different world than that which is known to the person who participates in the discussion. This alternative world would follow the discussion about the verses. Accordingly, one should regard the few examples similar to (25) as examples of using a regular formula in interpreting the biblical verses, and therefore not as a discussion about the past prior to the time in which the act of interpretation is taking place.

7.2 The participle

In comparing the two tables in Section 3, only Table 1 seems to predict the use of the participle to indicate future events, and indeed there are many of them. However, I would like to explain why the approach illustrated in Table 2 is also consistent with these examples.

The other side of this relationship between modality and future time which was discussed in the previous section (7.1) is that when something

⁶³ In fact, in Ms Munich the form is in the past tense: היה יורד.

is bound to occur in the future, it is common cross-linguistically to encounter the present tense.⁶⁴ Compare the following two sentences in colloquial Modern Hebrew as illustrated in (27):

27. a. מחר בטוח יורד גשם

"It will certainly rain tomorrow"

b. מחר אולי יורד גשם Intended: "Maybe it will rain tomorrow"

Thus, the cases in which the participle is used to describe events that follow the speech event seem to fall under this category of atypical uses of the tense, and in this case the present is used to indicate certainty, as, for example, is the case in (28):

28. משל לאדם שהלך לישא אשה. אמ׳ לה. ״אביך מלך ואני מלך. אביך עשיר 28. ואני עשיר. אביך מאכילך בש׳ ודג׳ ואני עשיר. אביך מאכילך בש׳ ודג׳ ואני עשיר. אביך מאכילך בש׳ ודג׳ ⁶⁵ ייז ישן״. אין זה פיתוי. כיצד או׳ לה. ״אביך הדיוט וא׳ מל׳. אביך נני ואני עשיר. אביך מאכילך ירק וקטנית ואני מאכילך בשר ודגין. אביך עני ואני עשיר. אביך מאכילך ירק וקטנית ואני מאכילך בשר ודגין. אביך משקר יין חדש ואני מש׳ יין ישן. אביך מוליכך למרחץ ברגלך ואני מוליכך בגלגטיקא״ (ספרא דברים, לז)

A parable: A man who wanted to betroth a woman said to her, "Your father is a king, and I am a king; your father is wealthy, and I am wealthy; your father feeds you meat and fish and gives you aged wine to drink, and *I will feed you meat and fish and give you aged wine to drink*"—that is not the proper way to entice. How then should he speak to her? He should say, "Your father is a commoner, but I am a king; your father is poor, but I am wealthy; your father feeds you vegetables and pulse, but *I will feed you fish and meat*; your father gives you new wine to drink, but *I will give you aged wine*; your father takes you to the bathhouse on foot, but *I will take you there in a litter*." (Sifre Deuteronomy 37)

- 64 Comrie 1985:118; Bybee et al. 1994:149–51.
- 65 In the Yalqut Shimoni, we encounter אני אאכילך בשר ודגים ואשקך יין ישן in the prefixconjugation.

Copley analyses this type of use of the "present" as "futurate meaning."⁶⁶ She argues that such sentences are related to "the directors," the entities who makes a plan. The directors need not be the subject of the sentence and they must be animate. A director for a proposition has at least two properties: the ability to ensure that what is stated in the proposition happens, and the commitment, or "the desire" to see that it does happen.

In consideration of this, the use of the participle—which, according to our analysis marks the present—to describe events that take place in the future is expected, based on the context in which it is used and cross-linguistic knowledge. Therefore, examples such as those in (28) are consistent with both approaches and cannot be used for the sake of deciding between the two.

8. Concluding Remarks

The goals of this paper were rather limited: to portray a preliminary analysis of the TAM system of Tannaitic Hebrew. It relied on a relatively small corpus, and a full study should be completed in the future. Such a study should take into consideration issues of lexical aspects as well.

Based on this preliminary study, there are strong reasons to reaffirm Segal's analysis⁶⁷ according to which the verbal system of Tannaitic Hebrew systematically marks both aspect and tense hierarchically, i.e., once the aspect of the verbal form is determined it is modified with respect to its tense. The support for this analysis are primarily theoretical (Section 4) and as such, as long as this analysis is consistent with the data (Sections 5–7) it should be our default choice.

As explained, I believe that the corpus of the study, at this stage, must be constrained to narrative. Given the compositional nature of the tenseaspect categories, presumably reflected in grammar, it seems obvious that it is crucial to first establish what the form encodes, on the basis of the narrative-genre where the reference point is made use of. Once the study

⁶⁶ Copley 2008.

⁶⁷ Segal 1936.

of the TAM system is established and confirmed based on the type of the corpus mentioned above in Section 2, we will be able to return to other genres, such as the legal or those which describe rituals, and then our task would be to understand how such a system is exploited in the other contexts.

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