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#### **Research Article**

Mary Sirridge\*

# Boethius of Dacia and Terence Parsons: Verbs and Verb Tense Then and Now

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**Abstract:** Latin and English are good examples of languages in which temporal information is expressed to a significant extent by the tense system of verbs. Medieval speculative grammar dealt extensively with the grammar of tensed sentences and temporal adverbs. And starting in the 1960s, there was an explosion of theorizing about linguistic temporal indicators, principally tense systems and temporal adverbs, in anglophone linguistics and philosophical logic focused on semantics for natural language. I argue that despite important differences with respect to methodology and underlying assumptions, there is significant agreement about the underlying structure of constructions involving tense and the ontological commitments that follow from a semantic analysis of these constructions. I use as examples *Modi Significandi* by Boethius of Denmark and *Events in the Semantics of English* by Terrence Parsons.

**Keywords:** modist grammar, Davidson, Priscian, events, active and passive voice

Linguistic temporal indicators, which appear to be a universal feature of languages,<sup>1</sup> give rise to a number of puzzles. In the case of verb tense systems – and Latin and English are good examples of languages in which temporal information is expressed to a significant extent by the tense system of verbs – many complications stem from the fact that verb tense can carry a good deal of information that is not straightforwardly temporal, additional information that falls under the general heading of "aspect," which is highly variable from language to language.<sup>2</sup>

A more basic kind of issue, however, is what the tense structures of language in their simply temporal function can tell us and about what. The most fundamental question, it seems, is whether the tense structures of language tell us anything at all about the structure of external reality, or something about the way we do, perhaps even must, understand reality? In either case, do they reveal something about the nature of time and its structure, whether, for example, time is unidirectional, or whether, in addition to the present, whatever it is understood to be, we need also to be committed to the separate reality of past and future. Are we, in addition to substances and their properties, and perhaps their relations, also committed to events and possibly also to states and processes?<sup>3</sup>

<sup>1 &</sup>quot;The ability to express time belongs to the most fundamental traits of human communication. All human languages that we know of provide their speakers with a wide range of lexical and grammatical devices to say whether it happened or will happen, for the first time, regularly or very often, and to say whether some event or state precedes, overlaps with or follows another event or state," Klein and Li, *Expression*, 1; Klein and Li, "Encoded," 39–81.

<sup>2</sup> von Stutterheim et al., "Aspectual Distinctions," 196–216. The authors study in detail only English, Dutch and German.

<sup>3</sup> In the discussions of twentieth-century theorists like Davidson, Parsons, and Bach, "event" is substantially a primitive notion, though it is argued that there are some characteristics that events must have, given their explanatory role. Davidson ("Particulars,"

<sup>\*</sup> Corresponding author: Mary Sirridge, Department of Philosophy and Religious Studies, Louisiana State University, Baton Rouge, United States, e-mail: pisirr@lsu.edu

Medieval speculative grammar, which culminated in the modist grammars of the thirteenth and four-teenth centuries, dealt extensively with the grammar of tensed sentences and temporal adverbs. And starting in the 1960s in anglophone philosophical linguistics and philosophical logic focused on semantics for natural languages, there was an explosion of theorizing about linguistic temporal indicators, principally tense systems and temporal adverbs. An interesting question thus arises: how much is there in common with respect to theorizing about linguistic temporal indicators and verbs generally between these twentieth-century developments on the one hand and modist grammatical theorizing on the other. To anticipate, despite important differences with respect to methodology and underlying assumptions, there is significant agreement between the twentieth-century approach described here and the mature modist grammar of the thirteenth and early fourteenth centuries about the structure and semantic analysis of constructions involving verbs and verb tense and the resulting ontological implications.

I propose to start with an examination of *Modes of Signifying (Modi Significandi)*<sup>4</sup> by Boethius of Dacia, who was active in Paris in the first half of the 1270s,<sup>5</sup> and I will bring in material from other medieval grammarians<sup>6</sup> when it is useful for purposes of comparison. *Modes of Signifying* comprises a series of question-style discussions based on the material from the first part of Priscian's *Institutiones Grammaticae*<sup>7</sup> in which this important grammarian of Latin antiquity systematically discusses the various parts of speech individually; Priscian's discussion of the verb includes a lengthy treatment of verb tense. I will then turn to a discussion of Terence Parsons' *Events in the Semantics of English*, which covers many of the same topics, and will bring in the work of other twentieth-century philosophical linguists and semanticists working on the same range of problems when it seems useful.

#### 1 Then: Boethius of Dacia

Boethius's *Modes of Signifying* is a work of mature modist grammar. Like other medieval speculative grammarians, modists consider grammar to be the science of universal structures of language that underlie grammaticality or well-formedness; they distinguish the study of grammar in principle from the science of logic, which deals with matters of truth and inference, and from other sciences like physics and metaphysics. Characteristically modist grammarians posit a correspondence between grammatical structures, the structures of understanding, and the structure of reality understood as a field of reference: the "properties of things" (*proprietates rerum*), i.e., their "modes of being" (*modi essendi*), give rise to the "modes of understanding" (*modi intelligendi*) on which the "modes of signifying" (*modi significandi*) of language are based.

Like the other modist grammarians, Boethius grounds his approach to the science of grammar in the "modes of being," which give rise to the corresponding "modes of understanding" and "modes of signifying." For Boethius an expression signifies a "thing." The noun "motion" and the verb "move" signify the same

<sup>187)</sup> argues that events must be understood as particulars and proposes identity conditions for events ("Individuation," 179). Parsons (*Events*, 23) agrees that a particular event must be understood as a particular instance (this instance of running) of a kind of event (running). Parsons uses "eventualities" as a general designation for events, processes, and states. The closest comparable term for Boethius is *actus* (act/activity), which includes acting on something else, being acted upon by something else, and activities like living and running.

<sup>4</sup> Boethius of Dacia, MS.

**<sup>5</sup>** Among the works of Boethius that are preserved are a commentary on Aristotle's *Topics*; a short treatise, "On the Eternity of the World," and commentaries on Aristotle's *De Generatione et Corruptione, De Anima* and *Physics* that are only partially preserved and of somewhat questionable attribution.

**<sup>6</sup>** The *Summa de Modis Significandi (SMS)* of Michel de Marbais is useful for purposes of comparison, since it comments on the same sections of *Institutiones Grammaticae*. According to Pinborg, *Entwicklung*, Michel de Marbais is dependent on Boethius to some extent. Also of interest is Radulphus Brito, *Questiones super Priscianum Minorem*. *QPM* dates to first quarter of the fourteenth century and begins with a lengthy discussion of the levels of modes and their interrelationships.

**<sup>7</sup>** Priscianus, *IG.* References to *IG*, will be to book, paragraph, page in the edition and lines on the page. Thus *IG* VIII.2. 369, 16-7 = IG Book VIII, Section 2, page 369, lines 16-17. I follow the orthography and punctuation of the edition of Keil and Herz.

"thing" under different modes of being, though in principle such a "thing" can be understood without understanding it as having any "property" or mode of being, e.g., without understanding it as an action or a substance, singular or plural, etc. Normally such "things" are understood and signified under some property or mode of being or other. These properties of the "thing," its modes of being, become the basis of the ways in which it can be understood and referred to linguistically. The "modes of signifying" (modi significandi) thus have their roots in the properties of things, i.e., "modes of being" (modi essendi) of things, by way of the corresponding ways in which the things can be understood (modi intelligendi):9

Thus, since the *res* through its properties determines in accord with itself the modes of understanding, so that the *res* cannot be understood by way of a mode of understanding that is inconsistent with its properties, for the intellect in understanding tracks the *res* in <its> being; and by way of its modes of understanding <the intellect> determines in accord with itself such modes of signifying as are similar to those modes of understanding — the modes of signifying track the modes of understanding and are not possible without them, as is obvious — therefore the properties of things determine the modes of signifying in accord with themselves.<sup>10</sup>

Boethius resists the idea that the modes of being or properties of things straightforwardly *cause* the modes of understanding.<sup>11</sup> It is the intellect observing the properties of things that generates the modes of understanding and uses them as the basis for "imposing" expressions to signify things and then investing expressions that signify the thing with modes of signifying. The modes of understanding of the thing are "taken" or "received from" (*accipitur*)<sup>12</sup> its modes of being, to which they are "similar"; but it is the intellect that is the efficient cause of the modes of signifying, which in turn stand in the relation of "similarity" to the modes of understanding.<sup>13</sup> The modes of understanding, he says, correspond "proportionally" to the modes of being, and the modes of signifying proportionally to the modes of understanding.<sup>14</sup> In the normal case, the proportionality amounts to an exact correspondence. But the basic requirement is weaker: a thing cannot be signified

**<sup>8</sup>** Boethius of Dacia, *MS*, 77–9. Boethius does not, however, reify these "things" as existing in separation from their instances. Ebbesen suggests that the "thing" be thought of along the lines of Avicennian "quiddities." Ebbesen, "Boethius of Dacia," 8.

**<sup>9</sup>** Boethius does on several occasions say that expressions signify concepts, and not always in connection with special cases that seem to call for this treatment, e.g., "nihil" and "chimaera." See e.g., Q 14: "Consequenter quaeritur utrum idem conceptus mentis possit esse significatum cuiuslibet partis orationis...Ad quaestionem dicendum, quod idem conceptus mentis potest esse significatum cuiuslibet partis orationis. Quicquid enim a mente concipi potest, hoc potest per quamlibet partem orationis significari..." *MS*, 53–55. His considered view, however, is that as a rule, expressions signify external "things" (*res*) by way of concepts or modes of understanding. For a general description of Boethius's theory of language, see Ebbesen, "Boethius of Dacia," 8–11; Ebbesen, *Middelalderfilosofi*, 126–69; Mora-Marquez, "Boethius Dacus," 40–8; Mora-Marquez, *Signification*, 139–62; Marmo, *Semiotica e linguaggio*; Marmo, "The Semantics of the Modistae;" Rosier, *La Grammaire Spéculative*; Rosier, "Modisme, pré-modisme, proto-modisme."

<sup>10 &</sup>quot;Unde cum res per suas proprietates sibi determinat modos intelligendi, ita quod non possit intelligi sub modis intelligendi, qui repugnant suae proprietati, intellectus enim intelligendo sequitur rem in essendo, et per suos modos intelligendi determinat sibi tales modos significandi, qui sunt similes illis intelligendi; modi enim significandi sequuntur modos intelligendi et sine illis non sunt possibiles, ut de se patet – ergo proprietates rerum sibi determinant modos significandi," MS, 64–5.

<sup>11</sup> Boethius characterizes the relationship between properties of the thing and the modes of understanding the thing in a number of ways, none of them amounting to efficient causality: "Omnes modi intelligendi *ortum habent a* proprietatibus rerum, quoniam res ipsae secundum diversas proprietates sub quibus cadunt, *exigunt* diversimode intellegi [...]," *MS*, 63.

<sup>12</sup> The exact force of "received from" (accipitur) is unclear. "Tamen modus significandi accipitur ad similitudinem modi intelligendi et modus intelligendi ad similitudinem modi essendi," MS, 81.

<sup>13 &</sup>quot;Sunt [sc. modi significandi] tamen in anima sicut in causa efficiente," MS, 85; "Licet modi significandi accidentales non causentur ex modis significandi specificis dictionum, sed ab intellectu considerante proprietates rerum, quae significantur per dictiones, et ab eis accipiente modos significandi accidentales, non tamen debent eis repugnare," MS, 81. In contrast, according to Michel de Marbais, the res in its modes of being moves the intellect to form the modi intelligendi, which are the basis for the intellect's imposing the modi significandi on the vox: "Res enim in essendo movet intellectum, ut patet in tertio De Anima, et intellectus a re motus tamquam quaedam virtus passiva respectu rei vocem ad designandum imponit," (The thing in its being moves the intellect, as is obvious from De Anima III, and the intellect, moved by the thing as a sort of power that is passive with respect to the thing, imposes the vox for the purpose of signifying), SMS, 17.

**<sup>14</sup>** "[...] quaedam sunt, quae habent esse extra animam, quae si intelligantur ita quod intellectus intelligendo illa non errat, habent modos intelligendi secundum suos modos essendi, ut quilibet modus intelligendi apud intellectum sit proportionalis modo essendi in re ipsa, et ut distincti sint modi intelligendi secundum distinctionem modorum essendi; oportet etiam, quod modi significandi in dictione sunt proportionales modis intelligendi et modis essendi talium rerum," *MS*, 72.

under a mode of signifying if the thing does not have a "similar" mode of being,<sup>15</sup> or, as Boethius sometimes puts it, if the proposed mode of signifying "is repugnant to the properties of the thing."

For Boethius, the modes of signifying are divided into essential and accidental modes of signifying. The essential modes of signifying divide into the "specific-essential" mode (*modus essentialis specificus*), the way of signifying that makes the expression the kind of expression it is, and the "generic-essential modes" (*modus essentialis generalis*), ways of signifying that are essential to expressions that fall under a given part of speech, but may also be essential to expressions that fall under another part of speech. The "accidental modes of signifying" (*modi significandi accidentales*) are those modes of signifying of an expression that are not essential modes of either kind.

According to Boethius, the specific-essential mode of signifying of the verb, the mode of signifying that makes an expression a verb, is signifying the "thing" it signifies (*res verbi/verbalis*) in the mode of "being predicable of something else" (*modus enuntiabilis de alio*). The generic-essential mode of signifying of verbs is signifying their significates in the mode of acting or being acted upon (*per modum fieri*), but participles also signify in this way; and for medieval grammarians following Priscian and Donatus, the participle and verb are distinct parts of speech. Thus signifying the *res verbi* in the mode of acting or being acted upon (*per modum fieri*), though essential to being a verb, is not the mode of signifying that makes a verb a verb, but is rather a necessary condition for being a verb.<sup>17</sup>

Boethius draws on Priscian's list of the "accidental properties of the verb" <sup>18</sup>: "genus" or voice (whether the verb signifies the "act of the verb" (*actus verbi*) as active or as passive or as "neutral," as "runs" and "lives" do); tense<sup>19</sup>; mood; person and number; species (whether a verb is *primitivum* like "legere" or *derivativum* like "legisco" ("begin to read")); figure (whether a verb is *simplex*, like "facio" and "cupio" or *compositum* like "concupio" or *decompositum* like "concupisco"), and conjugation.<sup>20</sup> Signifying with these accidental modes is not essential to being a verb because an activity, say hitting, can be understood essentially in isolation from them.<sup>21</sup> For example, even if verbs signify a "thing" as acting or being acted upon, and acting and being acted upon cannot occur without time, nonetheless acting can be understood without being understood as present, past, or future.<sup>22</sup> Thus, the *res verbi* can be signified without verb-time, though in fact there are no uses of verbs that are what we might call "intemporal."

**<sup>15</sup>** "Ex hoc sequitur quod nullus modus significandi potest esse alicuius rei, sive res illa habeat esse extra animam sive apud animam, quae non potest habere modum essendi sibi similem," *MS*, 73. "Tamen modus significandi accipitur ad similitudinem modi intelligendi et modus intelligendi ad similitudinem modi essendi," *MS*, 81.

**<sup>16</sup>** "[...] impositor ita regulatur ab ipsa re <\*\*\* > ut non possit sibi dare modos significandi suae proprietati repugnantes," MS, 65. **17** Michel de Marbais concurs: "Advertendum est igitur quod isti duo modi significandi fluxus vel fieri et de altero dicibilis iam inquisiti sunt modi significandi essentiales. Cuius ratio brevis est, quia ipsi pertinent ad naturam sui vel speciem sive ad constitutionem eius essentialem...Quod autem modus dicibilis de altero sit ei essentialis specificus similiter patet quia iste verbum ab omni altera parte distinguit, ita quod nulli alteri parti convenit, sed ipsum specialiter in specie partis reponit," SMS, 81–2.

**<sup>18</sup>** "Verbo accidunt octo: significatio sive genus, tempus, modus, species, figura, coniugatio et persona cum numero," *IG*. VIII.2 369, 16–7.

**<sup>19</sup>** I will normally translate the Latin *tempus* in the sense of verb tense as "verb-time," as a reminder that Latin authors, though they are aware of the double use of *tempus* as verb tense and real time, do not regard these two meanings of *tempus* as a simple equivocation. Petrus Helias, for example, claims that if we want to have complete knowledge of "time-when," which is signified by verb-time, we need to discuss "quantitative-time," i.e., real time, since the two are closely connected. *SsP* 485.

**<sup>20</sup>** *IG* VIII.2. 369, 16–7. Priscian's terminology combines awkwardly with Boethius' own Aristotelian-style use of 'species', 'genus', and 'accident'. Particularly problematic is how Priscian's commonsense "verbo accident" is to be understood philosophically. Boethius himself seems content simply to draw a distinction between the usual philosophical understanding of terminology and labels "secundum quod grammaticus loquitur." *MS*, 109.

<sup>21</sup> The *res verbi*, he says, can be understood *verbaliter*, i.e., as being predicable of something else and as being in the mode of acting or being acted upon, without being understood as characterized by pastness, presentness or futurity. And so it can be signified without time. "Cum igitur res verbi verbaliter potest intellegi, praeter hoc quod intelligatur circa ipsam ratio praesentialitatis, praeteritionis vel futuritionis...ergo res potest significari, praeter hoc quod designetur sub modo significand, qui est tempus," *MS*, 200–1. Perhaps he has in mind such constructions as: you are not allowed to hit others. His argument establishes at most, it seems, that an activity need not be understood and signified as happening in any particular segment of time.

<sup>22 &</sup>quot;[...] licet omne verbum de necessitate significet rem suam per modum significandi fieri, et fieri non potest esse sine tempore, fieri potest significari circa ipsum sine tempore...Et tu dicis quod nullum verbum invenimus, quod caret tempore; dico quod hoc non cogit, quia nec omnia possibilia invenimus in actu," MS 201.

The grammaticality of a sentence depends on whether its component expressions are of such parts of speech as can constitute a sentence when put together, given their essential modes of signifying, and then on whether the accidental modes of signifying of the component expressions, like person and number, are correctly aligned. "Socrates<sub>sing</sub> is running<sub>sing</sub>" is grammatical first because "Socrates" qua noun essentially signifies something as a stable or permanent entity (*modus habitus, modus permanentis*) and is thus the right sort of expression to designate a subject to which a verb like "is running" which essentially designates something as acting or being acted upon (*modus fieri*), and as being predicable of something else (*modus enuntiabilis de alio*), can be conjoined as a predicate. "Men<sub>pl</sub> is running<sub>sing</sub>" also satisfies this first condition; the component expressions are of the right kind to form a sentence. But it is ungrammatical, since the subject and predicate expressions are misaligned with respect to number, which is an accidental mode of signifying of nouns and verbs.

With respect to "genus" or voice, which is also an accident of the verb, Boethius's implementation of the basic modist programme is straightforward. Voice, he says, which Priscian also calls "signification," is the "accident" of the verb having to do with whether it is active, passive, or neutral. Boethius is in this instance very explicit about what properties of the res verbi the genus or voice of the verb is "received from." As Boethius presents the genus or voice of verbs,<sup>23</sup> an active verb is a verb that designates the property of being connected not only to an agent, but in addition to something extrinsic that is acted upon, "into which the act passes." It is this property of acting that terminates in or acts upon something else that the active mode of signifying of a verb is "received from" by way of the active mode of understanding. The expression designating the terminus of the act (what is affected by the action) will be a complement in the accusative case, which designates what it signifies as a terminus. The very "act of the verb" (actus verbi) that is an acting upon or affecting something extrinsic is, with respect to the thing it acts upon an undergoing, a passion; the real property whereby something extrinsic is acted upon is signified passively, which is designated by the passive forms of the verb. Passive constructions demand that the agent, that from which the action originated, be designated by a complement in the ablative case, which is the case that signifies its res as an origin or principle of an action. Thus, a verb that signifies an action that acts upon something else as its object will have both passive forms and active forms; the active and the passive forms each arise from a real property of one and the same actus verbi, in one case from its property of being an acting upon or affecting something else as terminus, in the other from its property of being an undergoing or being acted upon by something else as agent.<sup>24</sup>

By contrast, an action like running does not have the property of acting upon anything else, "for the running inheres in the one running," and thus cannot have the property of being an instance of acting upon

<sup>23</sup> Boethius' account of the "genus" or voice of the verb depends on Priscian's for basic terminology, but differs from the complex mixture of syntactic, morphological, and semantic factors that constitutes Priscian's rationale in his discussion. For example, in *IG.*VIII Priscian defines the "active" verb as one that signifies an act inflexionally, ends in "o" and "forms out of itself a passive verb" by adding an "r" to the active inflexion, and requires a complement in the genitive, dative or accusative case in order to form a grammatically complete construction. Passive verbs are those ending in "or" that require a word in the ablative case joined to them by "a"/"ab" in order to form a complete sentence. "Neutral" verbs are those which end in "o," but need nothing further as external complement in either the ablative case or any other oblique case in order to form a complete sentence. "Neutral" verbs are thus said by Priscian to be "absolute," i.e., complete in themselves without requiring other elements in an oblique case. *IG* VIII 7–10. 373, 10–375, 24.

<sup>24 &</sup>quot;Alius est actus, cuius natura talis est, quod sibi non sufficit agens nec est in agente suo sicut in subiecto, sed requirit materiam extrinsecam aliam a suo agente, et talis actus transit in materiam extrinsecam, et talis est actus transiens ut 'percutio Socratem', 'proiicio lapidem', et a proprietate transeuntis in aliud accipitur genus activum, et quia proprietas transeuntis in aliud requirit aliquid se habere in ratione termini respectu eius, quod transit, accusativus autem casus designat rem suam in ratione termini, ideo genus activum, quod est acceptum a proprietate transeuntis in aliud, est principium construendi verbum cum accusativo a parte post. Et quia actus, qui transit in materiam extrinsecam in illa recipitur, quod autem recipitur in alio, passio eius est in quo recipitur, ideo a proprietate, qua actus sive motus in alio recipitur, accipitur genus passivum; secundum enim modum essendi, secundum quem actus sive motus in alio recipitur nationem passionis respectu eius, in quo recipitur. Et ideo ab hac proprietate sive ex hoc modo essendi, secundum quem motus recipitur in alio accipitur genus passivum. Et quia omne illud quod recipitur in aliquo subiecto, recipitur in eo ab aliquo agente – omne enim quod movetur ab alio movetur, ut probatum est V. *Physicorum* – illud autem aliud, a quo ipsum recipitur, principium est illius, et ablativus casus designat rem suam in ratione principii, ideo genus verbi passivi principium est construendi verbum cum ablativo ut 'Socrates pecutitur baculo'," *MS*, 188–9.

something else or being an action whereby something extrinsic is acted upon; these are the modes of being from which the active and passive modes of signifying are taken.<sup>25</sup> Still, according to Boethius, the "neutral genus" or voice of "runs" or "lives" is not just a matter of entering into neither active nor passive constructions; it corresponds to the property of the *res verbi* of being "absolute," which is a real property: inhering completely in the agent.<sup>26</sup>

Like voice, verb-time is an accident of the verb. According to the pattern that governed Boethius' approach to genus, then, various verb-times will be understood as designating real properties of the *res verbi qua* acting or being acted upon, as genus was. According to Boethius:

We are not here discussing time (tempus) according to its being the measure of motion with respect to priority and posteriority, but according to its being a certain mode of signifying of the verb designating the character (rationem) of presentness or pastness or futurity with respect to the res verbi. And the verb-times (tempora) of the verb are differentiated according to these distinct properties. The mode of signifying that is the present verb-time designates the character of presentness, since it sometimes happens that the act of the verb (actus verbi) is present (praesentem); and sometimes it happens that the act of the verb is past, but not completely, as when some part of it is past and another part of it remains to be completed, and so the act of the verb is designated by the past imperfect verb-time, and for this reason this verb-time is called 'past imperfect'. It also happens that the act of the verb is completely past, so that every part of it whatsoever is completed and no part remains to be done, but the pastness of this act is not very remote and then the act of the verb is designated by the past perfect. It also happens that the act of the verb is completely past, so that every part of it whatsoever is complete and no part of it remains to be done, but so that the pastness of this act is very remote from the present, and then the act of the verb is designated by the past pluperfect...because to be completed in the past and have a pastness very distant (distantem) from the present is more than to have all parts of it complete and simply to have pastness without any addition. It also happens that the act of the verb has the character of the future, so that it is not now happening (non instat), nor has it passed perfectly or imperfectly or pluperfectly, but it is future; and the future verb-time designates this character of futurity with respect to the significate of the verb (significatum verbi) on account of which the mode of signifying, too, is called "future." <sup>27</sup>

In sum, says Boethius:

<sup>25 &</sup>quot;Ulterius intelligendum est, quod alius est actus, qui non transit in materiam aliquam extrinsecam, sed est in suo agente et non requirit aliquam materiam extrinsecam, in quam transit, et iste est actus absolutus, ut patet in hoc actu 'curro'; cursus enim est in currente, et quia non habet proprietatem transeuntis in aliud, ideo non potest esse generis activi, quia ista est proprietas a quo accipitur genus activum, et cum repugnat sibi aliqua proprietas, de necessitate repugnat modus significandi, qui est acceptus ab illa proprietate...et quia talis actus, qui nunc dictus est, non habet proprietatem transeuntis in aliud, ideo non habet proprietatem et modum essendi secundum quem ipsum recipitur in alio, a quo accipitur genus passivum – quod enim non transit in aliud, hoc non recipitur in alio – ideo non potest esse generis passivi, cum non possit habere illam proprietatem, a qua accipitur genus passivum. Ideo verbum significans actum talem est neutri generis," MS, 189.

**<sup>26</sup>** In answer to the question: "utrum genus neutrum sit acceptum a proprietate reali in specie distincta contra proprietates a quibus accipitur genus activum et passivum, aut genus neutrum sit pura privatio," Boethius answers: "Actus significatus per verbum neutri generis habet modum essendi absolutum et non modum essendi transeuntis in materiam extrinsecam, sed habet proprietatem, per quam habet esse in suo agente; iste enim actus currere est in currente, non transiens in materiam extrinsecam, et ab ista proprietate accipitur genus activum et passivum, ideo genus neutrum in specie differt a genere activo et passivo," *MS* 194. It seems likely that Priscian in fact does assign verbs to the "neutral genus or voice" just because they require neither an ablative nor any other oblique complement to constitute a complete construction. Refer to n.23 above.

<sup>27 &</sup>quot;[...] non loquitur hic de tempore secundum quod ipsum est principium motus secundum prius et posterius, sed secundum quod ipsum est quidam modus significandi in verbo designans circa rem verbi rationem praesentialitatis vel praeteritionis vel futuritionis; et secundum has diversas proprietates distinguuntur tempora in verbo. Modus significandi, qui est tempus praesens designat circa rem verbi rationem praesentialitatis, eo quod aliquando contingit actum verbi esse praesentem. Et aliquando contingit actum verbi esse praeteritum, imperfecte tamen ut cum aliqua pars eius praeteriit et aliqua pars eius remanet fienda; et sic designatur actus verbi per tempus preteritum imperfectum, et propter hoc dicitur illud tempus praeteritum imperfectum. Contingit etiam actum verbi esse praeteritum perfecte, ita quod quaelibet pars eius perfecta est et nulla pars remanet fienda, praeteritio tamen huius actus non est remota a praesenti; et sic actus verbi designatur per praeteritum perfectum. Contingit etiam actum verbi esse praeteritum perfecte, ita quod quaelibet pars eius perfecta est et nulla pars eius est fienda, tamen quod praeteritio huius multum remota est a praesenti; et sic actus verbi designatur per praeteritum plusquamperfectum. quia esse perfectum et habere praeteritionem multum distantem a praesenti plus est quam habere perfectionem in suis partibus et praeteritionem simpliciter et sine omni additione. Contingit etiam actum verbi habere rationem futuri, ita quod nec instat nec praeteriit perfecte nec imperfecte, nec plusquamperfecte, sed futurus est; et circa significatum verbi hanc rationem futuritionis designat tempus futurum, propter quod et tempus futurum dicitur iste modus significandi," MS, 198–9.

The modes of signifying of the verb that are called "verb-times" (tempora) are distinguished on the basis of the properties that the significates of verbs have that we have just been discussing. For time in the verb is a certain mode of signifying that designates in what division of real time the res verbi occurs. <sup>28</sup>

For these ways of signifying things as acting or being acted upon as past, as present, and as future (modi significandi), there must be corresponding ways of understanding them (modi intelligendi) as present, as past, or as future and some real properties of the thing qua acting or being acted upon (modi essendi) from which the intellect takes or receives the modes of understanding that are the basis for its imposition of these temporal modes of signifying. In fact, verb-time seems to be one of Boethius's "normal cases," in which the modes of understanding are "proportional" to the modes of being since they play no separate role in Boethius's account. The crucial question is thus: What are the "characters" of presentness, pastness, and futurity qua real properties of the thing signified by the verb that is designated by the various verb-times qua modes of signifying? There is also a more general question: What does Boethius's treatment of "verb-time" indicate about his metaphysical commitments with respect to time, motion, action, and the like?

On the face of it, Boethius's attempt to establish a basis in re for verb-time is not as promising as his treatment of the basis of voice in the intellect and reality. In the case of genus or voice, one could no doubt object that, with respect to one and the same action, something's affecting some extrinsic object and that extrinsic object's being affected are not really distinct properties of the action; but this objection is not obviously correct.<sup>29</sup> If, however, by saying that verb-time designates some "division of real time," Boethius means to say that verb-time simply designates a fixed position of an event with respect to some objective ordering, a location on a timeline, he seems to be mistaken.

Let us look at the question through modern eyes for a moment. There is an important difference between an untensed artificial string like:

- 1. Cross (Caesar, Rubicon)<sub>10 January 49 BC</sub> and the present-tense English sentence:
- 2. Caesar is crossing the Rubicon.

(1), itself untensed, locates an event, Caesar's crossing of the Rubicon, relative to some accepted ordering of events; in this sense, it counts as an "eternal sentence." Such an "eternal sentence" does in this extended sense "designate in what division of real time the res verbi falls," since it locates the event with respect to an established sequence of events, no matter when it is produced; if it is ever true, it is true whenever it is produced. By contrast, the present-tense statement (2) is not true if uttered now, although it was true during some interval of time in 49 BC; and thereafter when (2) is spoken, it remains true that it was true at that time, for that "now." Boethius appears to have overlooked the fact that verb-time in a sentence indicates a temporal position that is relative in a specified way to some time of observation or evaluation, that verb-time has an indexical component.30

The situation may be better than it appears, however. If we look closely at what Boethius says about the past verb-times, we find that he is explicitly characterizing the various past verb-times in terms of how they designate an act with respect to the present; the present he earlier described as "having the character of presentness" as a result of the fact that the act signified by the verb is "present" or is happening now (instat). The past pluperfect is said to be pluperfect because it designates an act as completed and past whose pastness is far distant from the present; the perfect designates a past act that is completed but is not very far back from

<sup>28 &</sup>quot;Et secundum has proprietates, quas habent significata verborum, quae modo dictae sunt, distinguuntur modi significandi in verbo, qui vocantur tempora; est enim tempus in verbo modus quidem significandi designans sub qua differentia temporis realis res verbi," MS, 199.

<sup>29</sup> Cases involving intentional agency or intermediary causal chains especially seem to call for some separation of the action of the agent and the effect on the object.

<sup>30 &</sup>quot;It is customary to say that among the elements of the context is a time of utterance. This is not quite accurate, as there may not be an actual utterance (think of a street sign). So I will speak instead of a context of evaluation, thought of as a kind of performance," Bach, "Aspect," 66-7.

the present. The imperfect Boethius describes as designating an act, some of whose parts are past, some happening now, and others yet to be completed. The future is what is not happening now and has not now already happened, but is "future," i.e., is now something that is going to happen; thus the future, too, will depend on the present verb-time as what has been called a temporal "anchoring point." The implicit "now" is an indexical element, and the other verb-times are relative to it.<sup>31</sup>

If this is the right understanding of Boethius's position, then he is not claiming that past verb-times designate absolute position on a temporal continuum *in re*, or even absolute position with respect to an ordered sequence of events, as "49 BC" does, but relative position *with respect to a present*. Relative position in this sense may be what Boethius understands as position "in real time." Even if the present, what is-now, is constantly changing, the "distance" between the "now" of a given time of evaluation and the event described by the utterance and its direction is what it is and remains what it is. Caesar's crossing of the Rubicon is now past and done with, indeed long since done with, with respect to this "now" of evaluation. "Caesar is crossing the Rubicon" is not now true because the crossing does not now have the character of presentness, but it remains true now that it did once have the character of presentness. If by saying that verb tense indicates "position in real time," Boethius means that "presentness" is just a matter of coinciding in time (*instat*), with the "now" of observation or evaluation, so that, for example, a verb of simple past verb-time designates an event as having happened completely *before the relevant "now" of evaluation*, then his account is oversimplified, perhaps. Still, he may be on the right track.

A great deal depends on how Boethius understands the key notion of "having the character (*ratio*) of presentness," in terms of which the other tenses are defined, and "*instat*," which he uses to describe the "position" of present events. Boethius seems to take these notions as primitives in *The Modes of Signifying*; but in the sections of *IG* on which Boethius is focused here, Priscian claims that time, whose nature is "to roll along like a river with unceasing motion, a part of which is past, a part yet to come," is divided by us into past, present, and future as they are marked by verb-times so as to be able to order our actions.<sup>33</sup> In a related passage, he says we are accustomed to call "present time" as it is designated by the present verb-time of most verbs that present "which contains and conjoins in a kind of point the intersection of past and future with no space between." This present, he says, the Stoics have rightly called "the present imperfect," since "its first part, which has passed, is already completed, but what follows, that is the future, is still not here."<sup>34</sup> If this extended

**<sup>31</sup>** Klein and Li, "Concepts," 25. "Still a different issue is the "now" which underlies the linguistic expression of past, present, and future time...The word *now* when uttered in a speech situation, refers to a time span which INCLUDES the moment of speech; rather <than> to the moment of speech itself; the boundaries of this time span can vary. It seems to be this moment of speech which serves as an anchoring point, in relation to which present, past, and future are defined." See also 32–5.

**<sup>32</sup>** One oversimplification stems from following uncritically Priscian's account of the past imperfect: "facile enim dinoscitur, utrum multo ante an nuper sint facta an coeperint quidem, necdum tamen sint perfecta. itaque quod accidit ipsis rebus, quas agimus, nomen tempori ipsi imponimus, 'praeteritum imperfectum' tempus nominantes, in quo res aliqua coepit geri necdum tamen est perfecta..." *IG* VIII.39. 405, 27-406, 4. Already in the twelfth century Helias, *Summa*, 488, recounts a compressed argument that this account will not do for such examples as "I was reading yesterday when you came to me," where the meaning is that my reading was not complete *when you arrived*, and not that my reading is still ongoing now. In its more thorough treatment of *IG* VIII.39-40, the *Glosule* had proposed the example "I was reading in the morning when you called me" and made the further point that in the event that my reading got completed, both the "I was reading" of my original statement and "I read," which I now use to describe the reading that I completed yesterday designate the same act, though in different ways. My thanks to Margareta Fredborg for making available her circulated transcription of *Glosule*, Paris BnFr Latin 15130-57va.

**<sup>33</sup>** "tempus accidit verbo praesens, praeteritum et futurum. quamvis enim naturaliter instabili volvitur motu et pars eius iam praeteriit, pars sequitur, tamen ad ordinationem nostrorum diversa gestorum tempora quoque dividimus," *IG* VIII.39. 405, 21–4. **34** "I am writing a verse" is Priscian's example: "alia autem verba praesentis, sicut diximus, inter praeteritum et futurum sunt, exempli causa, si incipiam versum aliquem scribere dum adhuc ad finem eius non pervenerim, et cum pars eius iam sit scripta, pars autem scribenda. ergo praesens tempus hoc solemus dicere, quod contineat et coniungat quasi puncto aliquo iuncturam preteriti temporis et futuri nulla intercisione interveniente, unde stoici iure hoc tempus 'praesens imperfectum' vocabant, ut dictum est, ideo quod prior eius pars, quae praeteriit, transacta est, deest autem sequens, id est futura," *IG* VIII. 52. 414, 21–415, 5.

or "imperfect" instant were not what is marked by the present-time of verbs, "we could not understand that any act happens in the present."  $^{35}$ 

Thus, Boethius has got available a notion of the "character" of presentness designated by present verb-time as an interval including, but not limited to, the time of utterance, in terms of which he can define the various "characters" of pastness and the character of futurity that are designated by the time-system of verbs. Presentness of the sort required for the truth of "I am writing a verse," i.e., the interval which began when I began to write the verse and ends when the action of writing is complete, serves as a "temporal anchoring point" for the tense system, since all the other verb-times are defined in terms of it and measured relative to this sort of "now." Thus Boethius may well have a fairly good account of the *modi essendi* designated by the various verb-times.

What does all of this tell us about Boethius's metaphysical commitments? Well, in his discussion of verbs, their voice, and their verb-times, Boethius does seem committed by his use of "actus verbi" to understanding events, i.e., instances of acting and being acted upon in some way or acting in an absolute way, as part of the furniture of reality; in his explanation of the verb-time system he seems to accept an order of events, times as positions in the sequence of events, and intervals of time (distantia) on the basis of which claims about one past event being "more distant" than another from the present make sense.

There is further information about Boethius's commitment to actions, it seems, if we look back to the conclusion of his discussion of voice in the verb, i.e., whether a verb is active, passive, or neutral:

And because it is a numerically one act which arises from the agent, having the property of passing over into extrinsic matter, from which the active voice is taken, that same numerically one act is received into the patient, from which property the passive voice is taken—for numerically one motion is the act of the mover and the moved, of the agent and patient, as is said in the chapter on motion—and because numerically one act has both modes of being, that is the mode of being whereby it passes into another, from which the active voice is taken, and the mode of being according to which it is received in another, from which the passive voice is taken, therefore one and the same act numerically can be designated in the active and in the passive, and numerically the same verb, having each of the two properties at the same time, can be of either voice, i.e., active and passive, since the *res* that this verb signifies has each of the two properties at the same time.<sup>37</sup>

This discussion seems to make explicit a commitment to acts and more generally to motions understood as individual instances that have "numerical identity" of the kind of acts/motions designated by a verb, say "hits/ is hit by." According to Boethius, Socrates' being hit by the ball and the ball's hitting Socrates are not the same property of the act, but they are correlative properties of numerically one act; and if the acting and being acted upon are properties of numerically one act, they must occupy the same position in the causal sequence.

But we cannot so quickly read off Boethius' commitments with respect to the metaphysical furniture of the world from his work as grammarian. For one thing, he has made it clear that it does not follow from the fact that the modes of signifying and the modes of understanding are "received from" the real properties of the *res* that they are "proportional" to properties of the *res*; what is required is that the relevant properties of the *res* are not incompatible with the modes of understanding on which the modes of signifying are based.<sup>38</sup> "Nihil," for example, is a noun, and thus signifies in the mode of substance and permanence; but it does not signify any

**<sup>35</sup>** This, at least, is one of the two interpretations of Priscian's obscure "instans imperfectum" offered by Peter Helias. Both interpretations make the point explicitly that if the instans is taken in the sense of the constantly changing, unextended point of intersection of past and future, hardly anything could happen in the present, so that the present in this sense, called by one interpretation "the simple present," cannot be the present time designated by the present tense of most verbs, SsP, 489–90. There would otherwise be almost no true present-tense propositions.

<sup>36</sup> Klein and Li, "Concepts," 25. See also 32-5.

**<sup>37</sup>** "Et quia idem actus in numero, qui est ab agente habens proprietatem transeuntis in materiam extrinsecam a qua accipitur genus activum, ille idem actus in numero recipitur in passivo, a qua proprietate accipitur genus passivum – idem enim motus in numero est actus moventis et mobilis, agentis et passi, ut docetur in capitulo de motu – et quia unus actus in numero utrumque habet modum essendi, scilicet modum essendi secundum quem transit in aliud, a quo accipitur genus activum et modum essendi, secundum quem recipitur in alio, a quo accipitur genus passivum, idem actus in numero potest designari active et passive, et verbum idem in numero significans illum actum potest esse utriusque generis, scilicet activi et passivi, cum res sua, quam significat illud verbum, simul habet utramque proprietatem," *MS*, 189–90.

<sup>38</sup> Check n. 15.

stable and permanent entity in extramental reality, since it signifies something in the mind. In this case, he says, the mode of understanding *is* the mode of being designated by the expression. But the mode of understanding signified by "nihil" can be understood and thus can be signified as a "something," so that it can be signified by a noun in the mode of substance.<sup>39</sup>

More importantly, for Boethius, the domain of the grammarian qua grammarian comprises the grammatical elements, rules and constructions of language, period; the fundamental constitution of reality is the business of the physicist and the metaphysician. Consequently he denies that the "impositor," who is supposed originally to have imposed words on the "things" they signify and then imposed the relevant modes of signifying that specify how the words signify upon the words on the basis of the properties of the "things," is a "pure grammarian" – on the grounds that the impositor's choices presuppose knowledge of the world, which is the province of natural philosophy; the "impositor" thus had to be both grammarian and natural philosopher.

We cannot, then, read off much about Boethius's metaphysical commitments from his discussions of the essential and accidental modes of signifying of the verb when he is functioning as a pure grammarian. But, as his discussion of the activity of the impositor indicates, Boethius has no objection to activities that involve the overlapping of separate sciences – so long as it is clear that the activity does not amount to the "pure practice" of the respective disciplines. What we can hope for, then, is that in his discussions of the decisions of the impositor in his dual role, Boethius will step beyond his role as "pure grammarian" and address the connection between grammar and matters that are the province of the physicist or metaphysician, who do have a legitimate scientific interest in what there is in external reality.

In fact, we have already seen Boethius in this composite role in his explanation of why a given act can often be designated both by an active and by a passive voice verb; this is because numerically one and the same act or motion will have the property of passing over into or affecting something extrinsic and simultaneously the property of "being received into" the extrinsic entity which is affected by it, given that one and the same motion is in the mover and in the moved. It seems very clear from this passage that Boethius as grammarian *cum* physicist is committed to acts and motions as individual events – they have numerical identity – that are instances of kinds of activity – and to individuals who have the role of agents and patients, movers and objects moved. And it is clear that these commitments are crucial for his explanation of grammatical facts, in this case the correlation of active and passive voice in the verb.

Another such occasion in *Modi Significandi* is Boethius's answer to an objection to the rule that the mode of signifying cannot signify something that does not have the corresponding mode of being. To see that divergence between mode of signifying and mode of being can occur, runs the objection, note that motion, which by definition does not have permanence, and thus should be signified in the mode of acting or being acted upon (*per modum fieri*), can nonetheless be signified by the noun "motion," which has the essential mode of signifying that belongs to the noun, i.e., signifying the thing as stable or permanent (*per modum habitus*, *per modum permanentis*). Boethius's answer is that motion has both properties; although motion has successive parts, every part is the same essentially as the part that immediately precedes and follows it, insofar as every part of the motion is a successive part of a series that is essentially homogeneous:

[...] although motion necessarily has parts that succeed each other, nonetheless all these parts are one in essence. For each part of a motion by its essence is this very motion. Therefore although there is here a succession of parts, there is no succession of parts differing in essence, but simultaneity insofar as every part of the motion is that very motion. And so according as it has successive parts, it belongs to it to be signified in the mode of doing and undergoing (*per modum fieri*); and according as there is essential unity of the parts of the motion, and not a succession of parts different essentially, the mode of signifying and the mode of understanding *per modum habitus* belong to it.<sup>40</sup>

**<sup>39</sup>** "Ad secundum dicendum quod conceptus mentis, qui significatur per hoc quod est 'nihil', habet omnes modos essendi apud animam similes modis significandi, quibus significatur in hac dictione 'nihil'. Unde 'nihil' non habet esse nisi apud animam, dum intelligitur. Ideo sui modi intelligendi sunt sui modi essendi, et tu scis, quod omnibus modis, quibus significatur debet prius intelligi," *MS*, 73–4.

**<sup>40</sup>** "Licet motus de necessitate habeat partes sibi succedentes, omnes tamen istae partes sunt unum in essentia. Quaelibet enim pars motus per essentiam est ipse motus. Et ideo licet sit ibi successio partium, non tamen est ibi successio partium per essentiam differentium, sed simultas in quantum quaelibet pars motus est ipse motus. Et ideo secundum quod habet partes succedentes

The passages that are particularly valuable as evidence for Boethius's views on what must be assumed about events, motion, and time in order to explain linguistic structures are those from *The Modes of Signifying* because they are from the same work, one in which he lays out the basic structure of language, a work whose main focus is the relationship between reality, understanding, and signification. The commentary on Aristotle's *Topics* is a work that parallels *Modi Signficandi* in its attention to the precise delimitation of the subject matter of the science, in this case, the science of dialectic. Boethius makes it clear that, like grammar as such, dialectic as such does not consider the nature of things or their properties. Nevertheless, without considering the natures of things, the "originator" of the science of dialectic cannot have come to a knowledge of general logical notions (*intentiones communes*) like genus and species, and the logical relationships between them (*habitudines locales*). Like the grammarian, the dialectician must thus be a dialectician *cum* philosopher. In this dual capacity, in discussing *Topics* IV, c. 6, 128b 5-9, he answers the question: whether that which is becoming is not; if so, does it not follow that becoming is a kind of not-being?

The answer is that universally with respect to permanent things what is becoming is not, since so long as it is in the process of becoming, it is directed toward its completion. Once having reached completion, a thing is said to be a house, a man or a chest; not having reached completion, it is none of these. And therefore what is becoming falls short of completion, and what falls short of completion is not. But what has <reached> completion is beyond becoming. But what is beyond becoming, having its completion, is. And so what is becoming, since it lacks completion as long as it is becoming, is not, if we are dealing with permanent things. It is otherwise with respect to successives, which have no being except in becoming; and so when they are, they are becoming; and when they are not becoming, they are not, for example time and motion. 42

And so from those passages in *Modi Significandi* and the questions on Aristotle's *Topics* in which he steps beyond his role as pure grammarian and pure logician, respectively, to function as a natural philosopher, it seems clear that Boethius is committed to events, actions, agents, and patients, and to time and motion understood as successive entities, and to temporal locations, sequences and intervals. What we do not have from these works is a definite sense of how he understands the relationship between time and motion or the nature of time, and whether time exists continuously, and whether there is always time, and if so, whether this is because there is always motion, of which it is an attribute, or whether time is a sort of container of events.

### 2 Then and Now

Starting in the 1960s in anglophone philosophical linguistics and philosophical logic focused on semantics for natural languages a good deal of attention has been devoted to the analysis of temporal indicators in language and to the philosophical implications of the analysis. More or less common ground has been a sense of what sort of data is relevant to the investigation and what kind of theorizing about language it should give rise to: what needs to be explained is the empirical data about which constructions are well formed and which are ill-formed or in need of some special interpretation, and which inferences are acceptable and which ones are

debetur sibi modus significandi per modum fieri; secundum autem quod in motu non succedit aliquid quod ab eo, quod factum est, per essentiam differat, et secundum quod in partibus motus est unitas essentialis et non successio aliquarum differentium per essentiam, sic sibi debetur modus intelligendi et modus significandi per modum habitus," *MS*, 73. My thanks to Giorgio Pini for pointing out the correct reading of this passage.

<sup>41</sup> Boethius of Dacia, *Topicorum*: "Dicendum quod dialecticus secundum quod dialecticus per se res speciales considerare non habet; omnis enim res specialis sive sit mathematica sive naturalis sive divina pertinet ad aliquem artificem specialem, et omnia, quaecumque attribuuntur illi rei, quicumque fuerit ille modus attributionis. Dialecticus autem per se habet considerare illas communes intentiones et habitudines locales, per quas argumenta sua confirmat. Et quia istae communes intentiones et habitudines locales non fundantur nisi in rebus, ideo dialecticus aliquo modo habet considerare naturas rerum specialium per accidens. Hoc autem non facit in quantum dialecticus, sed in quantum simul cum hoc est philosophus. Ex hic apparet, quod dialecticus arguens debet esse dialecticus et philosophus," 17–8. See also 210–2; 217–8. For further information about Boethius's theory of intentiones communes and habitudines locales, see Ebbesen, "Habitudines," 197–215.

**<sup>42</sup>** Boethius of Dacia, *Topicorum*, 250–1.

unacceptable.<sup>43</sup> The goal is to produce an analysis of the structure of sentences with temporal indicators that explain in terms of their syntactic structure, semantics and perhaps pragmatics, why some sentences are not grammatically acceptable and some inferences are good ones, and others are not. Why, for example, are sentences like "Mary is being in New York" ill-formed? And what kind of semantic analysis is required for such sentences as "Brutus stabbed Caesar in the back with a knife" ever to be true? And why is the inference from this sentence to "Brutus stabbed Caesar in the back and Brutus stabbed Caesar with a knife" a good inference, but not *vice versa*.<sup>44</sup>

Common ground also among these twentieth-century linguists and philosophers of language has been that commitment to events and states is unavoidable;<sup>45</sup> and the most common way of understanding such events is that "ordinary verbs stand for *kinds* of actions or states," of which events are particular instances.<sup>46</sup> But among both linguists and philosophers there has been to varying degrees, a concern to draw a line between the investigation of linguistic structures, which properly belongs to linguistics and philosophical logic, and proposing metaphysical theories that go beyond the results of such linguistic investigations.

And so, to return to our original question, what common denominators and what differences can we find between twentieth-century theories like those proposed by Davidson and Parsons and thirteenth-century modist grammar as we find it presented by Boethius of Dacia? Both these twentieth philosophical logicians and linguists investigating semantics for natural language and medieval speculative grammarians see themselves as investigating the structures that underlie the rules of language. Both groups take a cautious view about excursions into metaphysics on the basis of the analysis of linguistic structures.

One obvious difference between the Boethius of Dacia and twentieth-century logicians and linguists who investigate semantics for natural language is that these twentieth-century theorists use what Parsons calls "ordinary predicate logic" to represent the logical structure of event sentences and the relationships between them. An important consequence of this use of "ordinary predicate logic" is the explicit recognition that natural language semantics dictates a commitment to events and the particularity of events, to events as individual instances of a property and to a characteristic structure of events involving an agent and sometimes an object.<sup>47</sup>

The theory under discussion assumes that there are nonlinguistic things in the world corresponding to the linguistic items classified above: there are, in the world, events, processes, and states.<sup>48</sup>

Throughout the text I assume that eventualities have participants of various kinds. A stabbing has an agent (the stabber), and it typically has an object (though not always—you can stab and miss, or just stab "at the air").

But when we quantify over events and states in the theory being discussed, particular events are at issue.<sup>50</sup>

**<sup>43</sup>** Bach, "Aspect," 64: "The tack I will take is this: We attempt to find out about the hidden structures of meanings in a language and culture by constructing formal theories about the syntax, semantics and pragmatics of the language...In the context of such an inquiry I would like to consider a number of puzzles about the English tense-aspect system and its interaction with temporal expressions. I will try to show how a number of these puzzles can be solved by positing certain metaphysical assumptions made by speakers of the language." Parsons, *Events*, 10: "I begin with a mass of linguistic data to be explained and with the bare outlines of a theory for explaining it. I try to develop the theory in the best way possible to explain the data."

<sup>44</sup> The example is from Parsons, Events, 13.

**<sup>45</sup>** Davidson, "Individuation," 165: "The reasons just canvassed for accepting an explicit ontology of events rest on the assumption that one or another currently accepted or debated philosophical position, or doctrine is intelligible when taken at face value; so it remains possible to resist the conclusion by rejecting the relevant doctrines as unintelligible, or by attempting to reinterpret them without appeal to events. The prospects for successful resistance are, in my opinion, dim."

<sup>46</sup> Parsons, Events, 4.

**<sup>47</sup>** Ibid.: "In this book, I assume that much the same is true of verbs; ordinary verbs stand for *kinds* of actions or states, and it is a matter of some complexity to formulate a theory of how we use them to talk about particular actions and states"; Parsons, *Events*, 3: "This form, which is typical, is dominated by an existential quantification over events. Since no such quantification is explicitly indicated in the sentence 'Brutus stabbed Caesar', I call it an "underlying" quantification."

<sup>48</sup> Parsons, Events, 4.

**<sup>49</sup>** Ibid., 20.

**<sup>50</sup>** Ibid., 23.

The thirteenth-century theorists, in contrast, are not using logical formulae to analyze and represent the structure of sentences in Latin; the structure of sentences and the relationships between them are articulated in terms of the modes of signifying. The question, then, is not whether these diverse systems of analysis and representation will work in the same way, but whether there will be a significant overlap in results.

The existential commitment to particular events as instances of a kind of event, which Parsons calls "the underlying quantification" discoverable in "Brutus stabbed Caesar" finds a close parallel in Boethius's presentation of acts as instantiating various properties or modes of being. And Boethius's explanation of the connection between a construction that expresses a given agent's affecting a patient and the corresponding passive construction expressing a patient's being affected by the agent's action is that the two constructions are grounded in one and the same act, which instantiates both passive and active properties. In response to the same kind of question, Parsons says:

The logical forms underlying simple sentences of English are always logically equivalent in their active and corresponding passive forms.51

This, for Parsons, is because one and the same event of a given kind is referred to in an active sentence and the corresponding passive sentence. Boethius would agree that it is the same kind of event, the same res, a stabbing, that is referred to in "Brutus stabbed Caesar" and "Caesar was stabbed by Brutus"; on this basic level, he would agree with Parsons that "a verb in the passive form still stands for the same property of events as in the active form."<sup>52</sup> He would further agree that this stabbing and this being stabbed are one and the same event. But he would not agree with Parsons' further claim that the difference between the two sentences is merely a matter of surface syntax<sup>53</sup>; for Boethius, the active and the passive forms have different modes of signifying, and a difference in modes of signifying is not merely a matter of surface syntax, but reflects a real difference in properties of being possessed by the res that are designated by active and passive verb forms, respectively.

With respect to verb-time/tense, we find that there is a similar general objective, as Parsons puts it: "to provide a coherent general theory about how events and states relate to language."54 And in his detailed analysis, Parsons is explicitly committed to quantifying over times and intervals of time and to the "now" as an interval that serves as a temporal anchor for the rest of the tense system.

Assuming that 'now' refers to the time of utterance, I represent the past, present and future as constraining the interval of time during which events take place and states hold. The forms are

Past I < now Present I = now Fut I > now

A typical use is in 'Brutus stabbed Caesar', where the time of the stabbing is said to be in the interval constrained by the past

Brutus stabbed Caesar =  $(\exists I)[I < now \& (\exists t[t \subset I \& (\exists e)[Stabbing(e)\& Agent(e, Brutus)\& Theme(e, Caesar)\& Cul(e, t)]]^{55}$ 

This presentation is remarkably similar to Boethius's analysis of the system of verb-time: non- present verbtimes are defined relative to the implicit "now," which is understood as an interval of evaluation, and which

**<sup>51</sup>** Ibid., 92.

<sup>52</sup> Ibid., 91. Boethius would no doubt object to this use of 'property'.

<sup>53</sup> Parsons, Events, 91: "A verb in the passive form has no effect on the translation of the verb itself – it still stands for the same property of events as in the active form. The presence and order of its arguments in the surface syntax of the sentence are, however, affected."

<sup>54</sup> Parsons, Events, 1. States, which require a significant variation of the semantic analysis that Parsons assigns to events and (with a minor adjustment) to processes, are analyzed somewhat differently from events and processes by medieval grammarians who follow Priscian, particularly those states which explicitly or implicitly involve an occurrence of the verb 'to be'.

<sup>55</sup> Parsons, Events, 213.

serves as a temporal anchor for the verb-time system; and past perfect and pluperfect verb-times are used when an action was completed or, to use Parsons' terminology, "culminated" before the present "now." <sup>56</sup>

There is agreement in the details, in the results, then. With respect to "big picture" issues, the results are predictably mixed. It is tempting to say that, whereas these twentieth-century theories are focused on semantics and logical structure, the modist grammatical enterprise is interested in explaining syntactic structures and well-formedness. The activity of Boethius's "impositor," after all, falls outside grammar, strictly speaking, because it presupposes knowledge of the world as a domain of reference. The modist programme would thus appear to have something in common with an approach to language that Parsons contrasts with his, i.e., the approach of the theorists who "work in syntax."

The temptation ought to be resisted. There are indeed instances in which the syntax/semantics distinction is the source of a decisive difference. Boethius says, for example, that "Socrates will run yesterday" is unproblematic, just as "Socrates ran yesterday" is acceptable because both are syntactically well formed, regardless of whether the former can ever be true or even makes sense. Parsons and Davidson would disagree; in twentieth-century theories about verb tense, temporal adverbs and adverbial constructions play an important role precisely because they affect the truth value of propositions and the cogency of inferences.

On a deeper level, however, the approach of a work like *Modi Significandi* is semantic throughout because the overall objective is not to analyze syntax to the exclusion of semantic considerations, but to explain the facts of grammar in terms of the functions of the parts of speech and to validate the system of *modi significandi* as a grammatical theory by connecting the modes of signifying transparently to the structure of the world. For example, Boethius reinterprets Priscian's understanding of the voice of the verb semantically. For Boethius, the fact that there is no genuine passive-voice construction without a corresponding active-voice construction is grounded in the character of the relevant *modi significandi* and their attachment to the same *res.* And for Priscian, a verb is "absolute" because it requires no complement in an oblique case in order to constitute a complete sentence; for Boethius, an "absolute verb" is one that designates an action that remains within the agent.<sup>58</sup>

One genuinely important difference, it seems to me, is that despite his determination to keep grammar, metaphysics and physics in their separate domains, Boethius seems to hold that his account in terms of "things" and their properties is metaphysically basic. Davidson thinks that events may turn out to be placeholders, metaphysically speaking, and to be subject to further analysis. For example, having observed that the determination of the "semantic roles of the significant features of the sentence leaves us ignorant of relationships between predicates and of their logical properties," Davidson continues:

On the score of ontology, too, the study of logical form can carry us only a certain distance. If I am right, we cannot give a satisfactory account of the semantics of certain sentences without recognizing that if any of these sentences are true, there must be such things as events and actions. But deep metaphysical problems will remain as to the nature of these entities, their mode of individuation, their relations to other categories. Perhaps we will find ways of reducing events to entities of other kinds, for example sets of points in space-time, or ordered n-tuples of times, physical objects and classes of ordered n-tuples of such. <sup>50</sup>

**<sup>56</sup>** Parsons' treatment of the past progressive, *Events*, 171, is similar to Boethius's account of the past imperfect verb-time, except that Parsons does not make the mistake that Boethius made, i.e., assigning an analysis that requires the ongoing past process be one that continues into the present. See n. 32 above.

**<sup>57</sup>** Parsons, *Events*, 8. Parsons does not further identify or describe these theorists who "assume syntax to be autonomous from semantics"; but he probably has in mind the approach to the study of language that starts with Chomsky's *Syntactic Structures* (1957) and continues with his Chomsky, *Aspects of the Theory of Syntax* (1965). See Bach, "Natural Language," 573–7.

**<sup>58</sup>** See n. 22

**<sup>59</sup>** "To know the logical form of a sentence is to know, in the context of a comprehensive theory, the semantic roles of the significant features of the sentence. Aside from the logical constants, this knowledge leaves us ignorant of the relations between predicates and of their logical properties." Davidson, "Defence," 146. See also Bach, "Algebra," 13: "It is no part of linguistics or the logic of natural languages to give actual criteria of what counts as stuff that calls for a mass term."

<sup>60</sup> Davidson, "Defence," 146.

A related contrast is that at crucial junctures Boethius justifies his semantic analyses of grammatical phenomena by an appeal to an Aristotelian physics that he considers objectively solid. (In his account of the correlation between an active construction and the corresponding passive construction, for example, he appeals to the account of motion in Aristotle's Physics.) By contrast, among twentieth-century theorists like Davidson and Parsons, there is considerable uncertainty about whether and how their line of investigation matches up with the perspective of modern physics. Parsons, who takes Davidson's approach as a starting point, states the point as follows:

That we may be talking about different things is highly relevant, I think, to comparing my discussion with talk of "events" in modern physics and with any talk of "events" in connection with probability theory and inductive logic. Physical events as they are construed in contemporary physics may be quite a different sort of thing than I discuss here...My impression is that the events of quantum theory, for example, are not the same sort of thing as, say, a stabbing of Caesar by Brutus, though they may be interestingly related. 61

Another difference is that even though both the modist grammarian and our twentieth-century theorists are interested in giving a general account of the underlying structure of languages, the speculative grammarians are more uncritically committed to the universality of their account than their twentieth-century counterparts. Boethius, for example, is confident that, just as logic is the same for everyone,

[...] there is one grammar for all languages because the whole of grammar is taken from things...and because the natures of things are similar for all, therefore the modi essendi and modi intelligendi are similar for all those who have these different languages; thus the modes of signifying are similar, and consequently the modes of constructing or speaking are similar."62

The twentieth-century theorists with whom we are concerned, who are focused on semantics for natural language, have at least a more cautious attitude toward laying claim to universal grammar.<sup>63</sup> Parsons. in particular, ordinarily restricts his analyses to English and to closely related languages with demonstrable similarities to English. This is probably too conservative. From his description of his starting point and approach,<sup>64</sup> it seems clear that Parsons' account should work for any language that offers a sufficiently similar "sufficient mass of linguistic data to be explained," mostly in the form of the conditions under which certain sentences are true, supposing that certain other sentences are true. But clearly, for the twentieth-century theorist, this is itself an empirical question which needs to be answered by determining which other languages do in fact have a sufficiently similar "mass of linguistic data," and whether the theory works for them, and not by an appeal to a universal cognitive common denominator. 65

<sup>61</sup> Parsons, Events, 148-49. Bach ("Aspect," 65) goes further and points out that on certain assumptions that follow from a theory about the semantics of natural language it follows that Newtonian physics is correct, while Einsteinian physics is wrong. See also Cooper, "Discourse Location," 31: "Kamp (1980) and Bach (1986) defend the Whiteheadian view that the time-frame itself should be defined or constructed in terms of more basic relations among eventualities. I do not see this as an objection to the theory I am discussing. In appealing to times, I remain neutral on the question of whether they can be recovered from an analysis of relations among eventualities. I remain neutral about the issue of ontological priority of times over eventualities or vice versa."

<sup>62 &</sup>quot;Ad quaestionem dicendum quod omnia idiomata sunt una grammatica. Et causa huius est quia cum tot grammatica accepta sit a rebus...et quia naturae rerum sunt similes apud omnes ideo et modi essendi et modi intelligendi sunt similes apud omnes illos, apud quos sunt illa diversa idiomata, et per consequens similes modi significandi, et ergo per consequens similes modi construendi vel loquendi." MS, 12. Cf. Aristotle, De Interpretatione I, 16a3-6, on which Boethius of Dacia's argument is based: "Sunt ergo ea quae sunt in voce earum quae sunt in anima passionum notae, et ea quae scribuntur eorum quae sunt in voce. Et quemadmodum nec litterae omnibus eaedem, sic nec eaedem voces; quorum autem hae primorum notae, eaedem omnibus passiones animae sunt, et quorum hae similitudines, res etiam eaedem." Boethius of Dacia has replaced the "eaedem" ("the same") of his source with the weaker "similes."

<sup>63</sup> Bach, "Aspect," 64: "I believe that my conclusions have a wider application than just English and hope that the facts we uncover about English point to a more basic human matrix of assumptions about the world, that the Hopi and English world views are not at bottom incompatible, but rather are different orchestrations of material that is part of our common human heritage."

<sup>64 &</sup>quot;I seek a theory that describes the semantics of sentences of English, that is, the relations between words of our language and things in the world," Parsons, Events. 11. But see n. 65.

<sup>65</sup> Parsons, Events, 3: "A main theme of the theory I investigate is that such underlying quantification over events (and states) is ubiquitous in natural language."

Parsons probably did not have in mind reaching back across the centuries to the grammatical theories of the thirteenth century when he wrote:

There is also a wealth of data about language in old fashioned grammar books, couched in terms of 'event' (or 'action') and 'state'. Many observations about language couched in this terminology have been ignored as a consequence of recent advances in the study of syntax that assume syntax to be autonomous from semantics. This may be appropriate for those who work in syntax, since the observations I have gathered here are mostly semantical or pragmatic in nature. But since this book is in semantics, they often prove fruitful for my task.<sup>66</sup>

Still, even if there is considerable divergence between modist theory as represented by Boethius of Dacia and twentieth-century theories like those proposed by Davidson and Parsons with respect to the method of analysis and "big picture" issues, there is a good deal of agreement in the details – though not all the details.

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