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The *De re–De dicto* Distinction: A Twelfth-Century Logical Discovery

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Abstract

The identification of two possible readings – *de re* and *de dicto* – of modal claims is considered one of the greatest achievements of Abelard’s logic. In the *Dialectica* and the *Logica “Ingredientibus,”* Abelard uses this distinction as a basis for his modal semantics and theory of modalities. Rather than focusing on Abelard’s own theory, the aim of this article is to pay attention to a number of sources that – like Abelard’s logical works – are datable to the first decades of the twelfth century, to investigate whether the *de re–de dicto* distinction was already adopted and debated in them. It argues that, even if there is no systematic theorization of the distinction in these sources, Abelard’s contemporaries put forward a number of questions concerning the syntax and the signification of modal claims that contributed to set the stage for the distinction’s identification and later development.

Keywords

medieval modal logic – medieval theories of modalities – *de re–de dicto* – Peter Abelard – William of Champeaux – Joscelin of Soissons

1. Introduction*

The identification of two possible readings – *de re* and *de dicto* – of modal claims is considered one of Abelard’s greatest achievements, and also one of the aspects of his modal theory that had the deepest impact on the history of logic. The ways in which Abelard presents this distinction in his logical works have been subject to numerous studies, and I do not aim to revisit the details of his theory here. Rather, the aim of this article is to show that an animated debate over modal statements and their semantic ambiguities, involving several logicians in Abelard’s milieu, took place in the same years in which Abelard wrote the *Dialectica* and *Logica “Ingredientibus,”* during the first two decades of the twelfth century. By drawing attention to a number of logical sources

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produced by Abelard's contemporaries, I will show that many authors of the time have distinctive views and discuss the *de re* and *de dicto* readings of modal claims. Even though not all these logicians provided a consistent and systematic theorization of the distinction, many of them posed questions concerning the syntax and the signification of modal terms that contributed to set the stage for the distinction's identification and later development.

As Martin has recently shown,¹ a theory of modalities – in many aspects antithetical to that of Abelard – is offered in the two brief treatises *De modalibus*, designated by Iwakuma as M1 and M3, which seem to report the teaching of Joscelyn of Soissons.² Moreover, an analysis of modal claims is offered in many early twelfth-century commentaries on Aristotle's *De interpretatione*, which have been catalogued and partly transcribed in recent years.³ Of these, particularly important is a long commentary designated as H9,⁴ probably connected to the teaching of William of Champeaux and with which both Abelard and the author of M3 were almost certainly acquainted. Other early commentaries that will be mentioned are H4 and H5 (once attributed to Abelard, but their authorship has recently been put into question),⁵ as well as H13 and H20, which seem, like M1 and M3, connected with Joscelyn's school.⁶ Garland's *Dialectica* is another logical treatise that takes the semantics of modal propositions into consideration.⁷ Furthermore, we have a number of probably later sources, whose authors display some acquaintance with Abelard's *Logica*, such as the recently edited *Glossae Doctrinae Sermonum* (henceforth: *GDS*), the *De propositionibus modalibus* (henceforth: *DPM*),⁸ and the commentary on *De interpretatione* catalogued as H21.⁹ All these later sources include some discussion of the *de re–de dicto* distinction, usually presenting it in

¹ See Martin, "Modality."

² M1: Orléans, Bibliothèque Municipale, ms 266, 166^a–169^a; Paris, Bibliothèque Nationale de France, ms lat. 13.368, 175^{va}–177^{ra}. M3: Orléans, Bibliothèque Municipale, ms 266, 252^b–257^b.

³ A catalogue of twelfth-century logical texts, including the unpublished sources to which I will refer in this article, may be found in Marenbon, "Medieval Latin Commentaries." I am very grateful to Yukio Iwakuma, who generously shared the transcriptions of many of the sources to which I will refer.

⁴ H9: Orléans, Bibliothèque Municipale, ms 266, 5^a–43^a; Assisi, Biblioteca del Sacro Convento di S. Francesco, ms 573, 48^{rb}–67^{vb}. I am very grateful to C. H. Kneepkens for giving me access to his in-progress transcription of H9.

⁵ H4: Paris, Bibliothèque Nationale de France, ms lat. 13.368, 128^r–145^r. H5: München, Bayerische Staatsbibliothek, Clm. 14.779, 44^r–66^r. On the attribution of these texts see Cameron, "Abelard's Early Glosses" and Martin, "A Note."

⁶ H13: Orléans, Bibliothèque Municipale, ms 266, 237–257; H20: Orléans, Bibliothèque Municipale, ms 266, 257–263.

⁷ The authorship and exact dating of this text are still unsettled. Marenbon, "Logic," 194–196, suggests that the text could have been written in a time period from the 1080s (or even earlier) up to the 1120s.

⁸ Critical editions of *GDS* and *DPM* have been published as a supplement to Abelard's *Glossae super Peri hermeneias* in CCCM 206 A. *GDS* is found in the following manuscripts: Paris, Bibl. Nationale, lat. 15015, 180^r–199^r and Vienna, Österreichische Nationalbibliothek, cvp. 2486, 6r (a short fragment). It corresponds to text H15 in Marenbon's catalogue. *DPM* is found at the end of Abelard's *glossae* on *De Interpretatione* in the Milan manuscript (Bibl. Ambrosiana M63).

⁹ H21: Paris, Bibliothèque de l'Arsenal, ms 910, 83^r–91^r.

connection with the *per divisionem* and *per compositionem* readings offered by Aristotle in the *Sophistical Refutations*.¹⁰

There are three main problems that often recur in these sources and might have induced their authors to question the proper interpretation of modal claims. The first is a syntactical problem, concerning the relation between the structure of modals and that of simple categorical claims. In the *Dialectica*, Abelard presents the *de re* and *de sensu* readings as emerging exactly from the difficulty of explaining how modal claims are related to the simple propositions from which they “descend.” He argues that when we consider a proposition like “It is possible for Socrates to walk,” we can either take it *de sensu simplicis*, namely, as being about the content (*sensus*) of the corresponding simple proposition “Socrates walks,” or we could take it *de rebus*, as being about the same things (*res*) the simple proposition is also about. According to the first reading, the term ‘possibile’ is considered to be the proposition’s predicate, and the subject would be the whole infinitive clause to which it is adjoined. According to the second reading, the modal claim would instead have the same subject and predicate as the corresponding simple claim, and the mode would have the role of ‘qualifying’ the inherence between the things signified by these terms.

Like Abelard, many authors of the time were engaged in establishing the proper structure of modal propositions and in identifying their subject and predicate. Settling these issues was of fundamental importance for determining how modal propositions should be negated and quantified, and consequently for arranging these claims in a system of logical inferences. The various opinions of Abelard’s contemporaries on this matter will be described in section 2.¹¹

Apart from these syntactical issues, early twelfth-century authors considered a number of problems concerning the signification of modal words, which I deal with in section 3. A problem addressed in many treatises of the time is whether the modal term included in propositions like “It is possible for Socrates to walk” has a denotation or not, and in particular whether it denotes a form of *possibilitas* inhering in Socrates. Another question that is often raised concerns the items to which nominal modal terms should be taken to refer, that is, what is said to be possible or necessary in nominal modal propositions. Within this context, a debate arose as to whether modal terms refer to things and their properties, or whether they rather refer to propositional items like *dicta*.

¹⁰ To my knowledge, the only source among the ones quoted that clearly sets apart the *de re–de dicto* distinction from the *per compositionem–per divisionem* one is H21. The author of this commentary first distinguishes between two senses that a modal proposition like “It is possible for every animal to be a horse” may have: a *sensus propositionis* (“possibile est ita evenire ut dicitur hac propositione ‘omne animal est equum’”) and a *sensus rei* (“unumquodque animal modo existens potest esse equum”). Then, he further subdivides the *sensus rei* in a *per divisionem* and a *per compositionem* reading. See H21, 90^{ra}.

¹¹ Pace Dutilh Novaes, “A Medieval Reformulation,” early twelfth-century discussions of the *de re–de dicto* distinction are primarily *syntactical*. Although authors of this time also took into account a number of problems concerning the signification of modal terms and the nature of modalities, their main interest lay in deciding how we should analyze the syntactic structure of modal claims and determining whether their syntax and logical behaviour could be reduced to that of simple categoricals.

Finally, a third context in which twelfth-century authors developed their views on the proper interpretation of modal claims was the discussion of the validity of conversions in modal logic. The problem of conversions led Abelard's contemporaries to reflect on the truth-value of propositions like "It is possible for every human to be dead" or "It is possible for an egg to be an animal," in which opposite terms are predicated of the same subject. The earliest twelfth-century authors – who had no access to Aristotle's *per compositionem–per divisionem* distinction – needed a logical device to unravel the semantic ambiguity of claims of this sort. In section 4, I compare the treatment of conversions presented in H9, M3, and Abelard's *Dialectica*, and I try to show how their different analyses of conversions reflect their different views about the proper reading – *de re* or *de dicto* – of modal terms.

2 The Logical Structure of Modal Propositions

A distinction that is quite relevant in the debate on the syntactic structure of modal claims is the one between adverbial (*adverbiales*) and nominal (*casuales*) modals. Latin grammar allows a modal proposition to be construed either adverbially, as in "Every human is necessarily an animal" (*Omnis homo est animal necessario*), or by using a nominal mode followed by an accusative-infinitive clause, as in "It is necessary for Socrates to be a human" (*Necesse est Socratem esse hominem*). Some authors, like the authors of H9 and M3, refer to these two constructions as being two different "kinds" of modals (*duo genera modalium*), and they appeal to the authority of Boethius to support this idea.¹² However, where exactly the difference between the two lies, and whether it is merely grammatical or more profound, was the subject of lively debate.

Twelfth-century authors took adverbial propositions to be the "easy" kind of modals: their syntactical structure was considered similar to that of non-modal statements (statements *de puro inesse*) and hence presented no ambiguity.¹³ This similarity is based on the following features. First, adverbial claims have the same subject and the same predicate as the simple propositions from which they descend. Second, like their non-modal counterparts, this sort of modal can be varied in quantity, being either universal, particular, indefinite, or singular. Moreover, some authors claim that adverbial propositions, just like simple ones, express a certain "coherentia predicati cum

¹² See M3, 252^b; H9, ms Orléans, 33^a: "Auctore Boethii in commento Periermenias, duo genera modalium propositionum novimus esse. Alie enim sunt cum adverbiali modo, alie cum casuali. Casuales modi sunt hi: 'possibile,' 'contingens,' 'impossibile,' et 'necessarium.' Adverbiales: 'bene,' 'sapienter,' 'velociter,' et omnia qualitativa adverbia. Propositiones autem que modos habent adverbiales cum illis de puro inesse in paucis differunt et in multis conveniunt."

¹³ See e.g. M1, ms Orléans, 166^a: "Modalium propositionum alie sunt cum adverbiali modo, alie cum casuali. Sed ille de adverbiali modo, quia parum distant ab illis de simplici esse, nullam habent ambiguitatem."

subiecto,” that is, a relation of coherence between what is signified by their predicate and what is signified by the subject.¹⁴

With respect to this last point, most twelfth-century authors claimed that while affirmations *de puro inesse* express a simple conjunction between two things, adverbial modals state a *qualified* relation between them, for they point out “in which way” (*quomodo*) the predicate inheres in the subject. The role of adverbial modes, therefore, is that of *qualifiers* of an inherence, a role that they can perform in virtue of the fact that, when adjoined to a certain verb, they “modify” its meaning by adding a certain determination to it. To justify this particular reading of adverbs, twelfth-century authors usually appealed to Priscian’s idea that adverbs qualify (*moderant*) the meaning of verbs just as adjectives do with nouns.¹⁵

According to early twelfth-century logicians, the fact that adverbial modes act as “verb-qualifiers” is precisely what makes adverbial propositions modal. The author of H9, for instance, says that for a proposition to be modal it is not sufficient that a term like ‘possibly’ or ‘necessarily’ is included in it, but this term must have the role of

¹⁴ These aspects of adverbial claims are listed with very similar wording in H9, ms Orléans, 33^a–33^b; M3, 252^b–253^a; and M1, ms Orléans, 166^a. As an example, see the discussion in H9: “Sciendum quod duo genera modalium propositionum sunt. Unum quidem genus est cum aliquid cum modo predicatur et predicatum consignificat subiecto, alterum vero genus cum modus principaliter predicatur. Et primum quidem genus ad naturam simplicium accedit, quia et coherentiam predicati cum subiecto habent et sunt proprie universales, particulares, indefinite, singulares, et habent simplicem conversionem, ut ‘Socrates vere philosophus est’: hic ‘philosophus’ cum ‘vere’ predicatur et ‘Socrati’ consignificat; et ‘ovum est animal possibiliter’: hic ‘animal’ consignificat ‘ovo,’ sed non per se, sed gratia ‘possibiliter’. Nam ‘bene’, ‘vere’, ‘possibiliter’, ‘necessario’ et similia modi sunt in propositionibus, quia moderantur illud quod cum illis predicatur qualiter subiecto habeat coherere. Conversionem etiam simplicem habent, ut ‘omnis homo vere est albus,’ ‘quoddam quod vere est albus, est homo.’ Sed conversionem per contrapositionem non habent, quia oratio non debet infinitari. Converse vero modalium non debent dici modales nisi quando modus predicatur; modales enim ex modali predicatione dicuntur.” Cf. the parallel discussion in M3: “Propositiones autem que modos habent adverbiales cum illis de puro inesse in paucis differunt et in multis conveniunt. Sunt namque proprie universales, particulares, indefinite, singulares affirmative et negative. Predicatum quoque subiecto consignificat sicut in illis de puro inesse. Habent etiam conversio simpliciter, ut ‘quidam homo bene legit’ ‘quidam bene legens est homo,’ ‘nullus homo bene legit’ ‘nullum bene legens est homo’ vel ‘nullus qui bene legit, est homo’; et per accidens, ut ‘omnis homo bene legit’ ‘quidam bene legens est homo.’ Per contrapositionem vero conversio non habent.”

¹⁵ See for instance M3, 253^a: “Adiectivum enim et illud cuius est adiectivum faciunt unum intellectum, ut ‘albus homo,’ et adverbium verbum adiectivum esse videtur dicere Priscianus in Constructionibus.” The same idea returns in Peter Abelard, *Dialectica*, 191^{11–15}: “Resolvuntur enim huiusmodi nomina in adverbia, que videlicet adverbia proprie modos dicimus et inde adverbia vocamus quia verbis adposita eorum determinant significationem, sicut adiectiva nomina substantivis adiuncta, ut cum dicitur: ‘homo albus.’” See also Peter Abelard, *Glossae super Peri hermeneias*, 310^{73–76}: “Praeterea adverbium tunc proprie nominis sui etymologiam servat, cum ad verbum apponitur, quia adverbium quasi adiectivum verbi interpretatur.”

qualifying the inherence between things (*determinare coherentiam rerum*).¹⁶ A similar point is made by Garland in his *Dialectica*¹⁷ and by Abelard in the *Logica "Ingredientibus."*¹⁸ They both say that those terms are properly called "modes" which qualify the inherence of a verb while they modify it.

Despite the efforts of logicians of this time to reduce the syntax of adverbial modals to that of non-modal propositions, there are several problems connected to this analysis, due especially to the idea that adverbial claims always express a qualified inherence between two things. I will return to these problems. Leaving these issues aside for the moment, we might say that the analysis of adverbial propositions sketched here, according to which adverbial claims share their subject and predicate with the corresponding non-modal claims, suggests that modals of this sort were understood *de re* in the sense used in Abelard's *Dialectica*, that is, as being *about the same things* that the corresponding simple propositions are also about ("de rebus ipsis de quibus ille simplices [agant]," cf. *Dialectica*, 200¹²⁻²⁰). Moreover, the characterization of adverbial modes as "qualifiers" of the predicate's meaning strengthens this interpretation, for it suggests that in claims of this sort the mode is understood as having a narrow syntactic scope, which only includes the copula or the copula plus the predicate term, and not the entire proposition.

When it comes to nominal claims, as for instance "It is necessary for Socrates to be a human" (*Necesse est Socratem esse hominem*), things get more problematic. Some authors held that, despite their grammatical difference, adverbial and nominal claims have the same logical structure, and therefore, that if adverbial modals should be understood *de rebus simplicium*, so should nominal ones. Others maintained instead that nominal and adverbial claims differ not only with respect to grammar but also with respect to their meaning. On such a view, nominal claims could not be interpreted in the same way as adverbial ones, and should be understood in a special manner, namely, *de sensu*. Thus the correspondence (or lack thereof) between the grammatical adverbial–nominal distinction and the logical *de re–de dicto* distinction became the subject of debate.

A first doubt concerning nominal claims has to do with the identification of their subject and predicate. On the basis of their grammatical construction and the authority

¹⁶ See H9, ms Orléans, 33^a–33^b: "Propositiones namque alie sunt de puro inesse et sine modo aliquid inesse enuntiant, ut 'Socrates disputat.' Alie sunt que non simpliciter, sed cum modo aliquid enuntiant, ut 'Socrates bene disputat' vel 'Socratem possibile est disputare' ... Nam 'bene,' 'vere,' 'possibiliter,' 'necessario' et similia modi sunt in propositionibus, quia moderantur illud quod cum illis predicatur qualiter subiecto habeat coherere ... Notandum autem quia non quotiens predicatur 'potest,' 'necessarium' vel aliquid tale modalis propositio vocatur, sed tunc tantum cum dicit aliquod alicui inesse cum modo, scilicet quotiens moderatur rerum coherentiam, ut 'Socrates bene legit.' Hic modus determinat coherentiam lectionis cum Socrate vel 'Socrates potest legere': hic non simpliciter, sed potentialiter dicitur lectio Socrati convenire."

¹⁷ Garlandus Composista, *Dialectica*, 81¹⁸⁻²⁰.

¹⁸ Peter Abelard, *Glossae super Peri hermeneias*, 392²²⁻²⁷: "Modi autem, unde *modales* dicuntur propositiones, proprie adverbium sunt quaecumque in *quomodo?* responderi possunt. Ut, si quaeratur: *Quomodo legit?* licet responderi, quantum ad vim interrogationis pertinet: *Bene, Male, Celeriter*; haec itaque adverbium quae verbi inhaerentiam modificando determinant, proprie modi sunt."

of Aristotle,¹⁹ some twelfth-century authors thought that the proper analysis of nominal modals was the one in which the mode is the predicate, the verb of the infinitive clause is the subject, and the subject and predicate (in accusative) of the infinitive clause are determinations of the subject. This interpretation is mentioned in H9, M1, M3, and Garland's *Dialectica*.²⁰ Other sources, like H4, slightly adjusted Aristotle's analysis, saying that the subject of a nominal proposition is the entire phrase (*tota oratio*) of which the mode is predicated.²¹ The same idea is often found in later texts, such as *GDS*, the *Summa Dialectice Artis* and H21.²² This reconstruction of the syntax of nominal claims clearly suggests that it was understood *de sensu*, for the mode has a wide scope, encompassing an entire propositional *sensus*.

This analysis, however, contrasts with the assumption, also inherited from Aristotle and Boethius, that nominal modal claims can be used in syllogisms, and that as such they should be variable with respect to their quantity. If the subject of a nominal proposition is a verb (or an entire *oratio*), to which no sign of quantification can be added, then every nominal claim would be invariable in quantity. Another problem that comes up in relation to this analysis is that if nominal propositions are understood in this way – with the mode as their predicate and an entire proposition as their subject – then these propositions would be “unsyllogistical” not only because they have no quantity, but also because there would be no middle term in them to ground the validity of syllogisms. This objection is only raised in H21;²³ the other texts seem to be concerned merely with the problem of quantity.

In order to unravel this difficulty, Abelard's contemporaries turn to Aristotle's idea that in nominal propositions two subjects and two predicates can be identified. In the proposition “It is necessary for every human to be an animal” (*Necesse est omnem hominem esse animal*), for instance, the “principal predicate” is the mode, but there are also a “secondary predicate” and a “secondary subject,” which are the same as those of the non-modal proposition “Every human is an animal” (*Omnis homo est animal*). This distinction between principal and secondary terms returns in many treatises of the time, such as H4, H5, H9, M1, and M3.

In H9, for instance, the author tries to reconcile Aristotle's idea that the mode is the principal predicate of nominal modals (“modus principaliter predicatur”)²⁴ with the view of Boethius, who believed that quantity could be assigned to nominal claims. According to the author of H9, two strategies have been proposed to reconcile these views. One consists in saying that the quantity of modal propositions depends on the *signum* applied to the subject's *determinatio*, which is the subject of the accusative infinitive clause; the other proposes instead that there are two predicates and two subjects in modal claims of this sort, and that the proposition's quantity depends on the *signum* that is applied to its secondary subject. The exact same view is rehearsed in M3, whose

¹⁹ *De interpretatione* 12, 21a39–22a3.

²⁰ H9, ms Orléans, 33^a–33^b; M1, ms Orléans, 167^a; M3, 253^b; Garlandus Composita, *Dialectica*, 80^{25–31}.

²¹ See H4, 151.

²² *GDS*, 216^{511–521}; H21, 88^{va}; William of Lucca, *Summa dialetice artis*, 105, § 7.07–08; 118, § 7.43. For a detailed analysis of the way nominal modals are treated in these sources, see Binini, “Discussing Modalities.”

²³ H21, 90^{ra}.

²⁴ H9, ms Orléans, 33^a.

author explicitly says that the second strategy – distinguishing principal and secondary terms – is more convincing than the first.²⁵

This distinction between two orders of terms in nominal claims is also adopted by Abelard, but with an interesting twist. Rather than speaking of principal and secondary terms, Abelard distinguishes between the subject and predicate “according to sense” (*in sensu*) and those “according to the matter of grammatical structure” (*quantum ad constructionis materiam*). Abelard claims, in agreement with Aristotle and his own contemporaries, that the mode is the predicate of nominal propositions,²⁶ but only if we take into consideration the propositions’ “surface,” that is, their superficial grammatical structure. If we look instead at their meaning, nominal claims have the same terms as their correspondent adverbial and simple propositions. This position is supported in both the *Dialectica*²⁷ and the *Logica*.²⁸

By stressing the contrast between the proposition’s *constructio* and its *sensus*, Abelard sets the stage for his idea that adverbial and nominal claims, despite their apparent differences, are really the same with respect to their logical form, for they have the same subject and predicate *in sensu*. Because of their sameness in meaning, Abelard holds that nominal propositions can be unproblematically translated into adverbial ones, so that it would be equivalent to say that “It is possible for Socrates to be a bishop” and that “Socrates is a bishop possibly.”²⁹ Both propositions, he says, must be understood *de re*, namely, as being about the same things that the simple proposition “Socrates is a bishop” is about.

Some authors of the time agreed with Abelard on the possibility of rephrasing nominal modals into adverbial ones. There is evidence that a similar position is mentioned in *GDS*³⁰ and in Garland’s *Dialectica*,³¹ both of which state that nominal propositions can be “reduced” (*resolvuntur*) to propositions containing adverbial modes. As Martin showed, a similar idea also comes up in M3, where it is attributed to a certain “Master W.” (perhaps William of Champeaux). According to the report of M3, Master W. stated that the meaning of every nominal claim should be expounded by

²⁵ M3, 253^b.

²⁶ See, e.g., Peter Abelard, *Dialectica*, 191^{34–36}.

²⁷ Peter Abelard, *Dialectica*, 191^{26–30}: “Cum autem in sensu modales cum simplicibus eosdem retineant terminos, in his tamen modalibus que casuales habent modos, quantum ad constructionis materiam alii considerantur termini, ut cum dicimus: ‘*possibile est Socratem episcopum esse*,’ ‘*esse*’ quidem subicitur, et modus ipse, idest ‘*possibile*,’ praedicatur.”

²⁸ Peter Abelard, *Glossae super Peri hermeneias*, 396^{124–142}.

²⁹ Peter Abelard, *Dialectica*, 191^{1–20}.

³⁰ See *GDS*, 188^{26–29}: “Nominales vero modi sunt *possibile, necessarium, contingens*; qui verbis semper adiunguntur ut adverbiales, ut *Socratem legere est possibile*, et in adverbiales resolvuntur ut *possibile est Socratem legere*, id est *Socratem legit possibiliter*.”

³¹ See Garlandus Composita, *Dialectica*, 81^{30–82}. That Garland agrees with Abelard on this point is shown in Martin, “Modality,” 116. It is not clear, though, whether Garland admits that every nominal proposition is suitable for such rephrasing, or that just some of them are. The only example he provides concerns propositions about necessity, which are less problematic in this respect than propositions about possibility or impossibility.

means of an adverbial form, so that the meaning of “It is possible for Socrates to be a human” would be the same as “Socrates is possibly a human.”³²

Unfortunately, M3’s report is too concise for us to be sure what exactly the author had in mind. Master W. might have endorsed an interpretation similar to that of Abelard, according to which nominal claims should be understood *de rebus* like their adverbial counterparts. Or he might have had a very different view in mind, according to which both adverbial and nominal claims should be understood *de sensu*, as if the adverb ‘possibly’ in “Socrates is possibly a human” were predicated of a *dictum*, as saying “Possibly: Socrates is a human.”³³ This second view is perhaps more unlikely since, as was said, adverbial propositions were commonly interpreted *de re*. However, there is some evidence in sources of the time that a *de sensu* reading of adverbial claims was also endorsed by a number of authors. The author of M3, for instance, mentions a debate on this topic, and reports the opinion of some who thought that the proper predicate in adverbial propositions is the adverbial mode.³⁴ Supporters of this view invoked the authority of Boethius, who said that in adverbial claims the mode “contains the whole proposition.”³⁵ This analysis would be compatible with a *de sensu* reading of adverbial modes, but unfortunately we do not know much else about the details of this view or about the authors who endorsed it.

Nevertheless, Magister W.’s idea that nominal modals can be rephrased as having an adverbial form is strongly criticized in M3. The author argues that, if such a reduction of nominals into adverbials were in fact possible, they would not be two different kinds of modals (*duo genera modalium*), but merely two kinds of linguistic expressions (*duo genera locutionis*), and this would be contrary to the authority of Boethius.

The author of M3 also has other reasons for insisting that nominal claims cannot be reduced to adverbial ones. These reasons have to do with the idea, already mentioned in H9, that while adverbial predications always express a certain – qualified – inherence between two things, in nominal claims no relation of inherence between things is posited.³⁶ Appealing to Priscian’s idea that adverbs qualify the signification of verbs in an adjective-like manner, and to Boethius’s idea that the signification of a modally-qualified verb is always a “part” of the signification of the same verb taken *simpliciter*, the author of M3 maintains that every predication stated *cum adverbiali modo* entails the corresponding unqualified predication. As a result, he denies the truth of propositions like “A peasant is possibly a bishop” because their truth would imply the existence of an actual inherence between subject and predicate.

And yet, the author of M3 still admits that propositions of this sort can be true if we take them as having a nominal form, that is, as saying “It is possible for a peasant to be a bishop.” This is because he thinks that nominally interpreted adverbial claims have a

³² See M3, 254^b: “M. vero W. dicebat communem esse sensum omnium modalium cum casuali modo quod per illas cum adverbiali modo exponi debeant, sicut hec: ‘Socratem esse hominem est possibile,’ id est ‘Socrates est possibiliter homo.’” For an interpretation of this passage, see Martin, “Modality,” 118 ff.

³³ I wish to thank Wojciech Wciórka for suggesting this interpretation and discussing it with me.

³⁴ M3, 253^a: “Queritur quid in huiusmodi modalibus predicetur. De quo diversi diversa sentiunt. Alii enim dicunt adverbialem modum predicari, alii non modum sed rem modificatam.”

³⁵ M3, 253^a.

³⁶ H9, ms Orléans, 33^a–33^b.

“figurative” meaning, that is, they express no proper inherence of a property in a substance:

We, on the contrary, concede that if [someone] is a bishop possibly – that is, if he is a bishop in a specific mode (*hoc modo*) – then he is a bishop. But this categorical proposition “A peasant is possibly a bishop” is not true, unless taken figuratively, namely, as stating: “It is possible for a peasant to be a bishop.”³⁷

Nominal modal propositions like “It is possible for a peasant to be a bishop,” then, may be true even though the corresponding adverbial forms are false, and they do not entail the proposition *de puro inesse* (“Socrates is actually a bishop”) from which they descend. This seems to be the case because the semantic role of nominal modes, unlike that of their adverbial counterparts, is not that of qualifying the inherence between two things, nor that of qualifying the meaning of the predicate term.

A similar opinion is reported in M1, where it is attributed to a certain “Magister Gosl.,” probably Joscelin of Soissons:

This proposition [namely, “A peasant is possibly a bishop”] could also be interpreted as if the mode – restricting the word “bishop” – affected the proposition’s meaning, as if it said: “A peasant is a bishop in a specific mode” (*hoc modo*). It would correctly follow from this that if someone is a bishop in a specific mode, then he is a bishop. But Master Gosl. did not want to expound the mode in such a way, for he thought that [the proposition] “A peasant is possibly a bishop” must rather be reduced to one having a nominal form, that is, “It is possible for a peasant to be a bishop,” and that it [should be understood] as having a figurative meaning. If the mode is expounded in this way, “being possibly a bishop” does not imply “being a bishop unqualifiedly,” that is, “being actually a bishop.”³⁸

M3’s critique of the idea that nominal claims can be rephrased into adverbial ones, and his insistence on the difference between these *duo genera modalium*, might then be due to the fact that, while he takes adverbial claims to always posit the existence of a

³⁷ M3, 253^a: “Nos vero concedimus sequi: si possibiliter episcopatur, id est si hoc modo episcopatur, et episcopatur. Sed categorica non est vera ‘rusticus possibiliter episcopatur,’ nisi figurative, scilicet ‘possibile est [added between the lines] rusticum episcopari.” This and the following translations are mine, unless indicated otherwise. The idea that the adverbial proposition “A peasant is possibly a bishop” is only true if taken figuratively, as “It is possible for a peasant to be a bishop,” also returns in H20, 262^b: “Ad hoc dicimus quod adverbii – quod vi, id est significatione, est adiectivum verbo – est determinare verbum; quod autem verbum adverbium determinet, non legi. Notandum est quod secundum hanc lectionem non sequitur ‘si possibiliter episcopatur, et episcopatur’ quod faceret ex proprio sensu. Vel possumus figuram [‘figuram’ in marg. alia manu] facere, sic. ‘Rusticus possibiliter episcopatur,’ id est ‘possibile est rusticum episcopari.’”

³⁸ M1, 166^{a-b}: “Potest tamen hoc tali modo intelligi, ut restringendo vocem iste modus ad solum quoque pertineat, ac si diceret ‘rusticus episcopatur cum tali modo.’ Ex hoc ergo bene sequitur quod ‘si episcopatur hoc modo, et episcopatur.’ Sed m. Gosl. non vult hunc modum sic exponi, sed in casualem modum sic debere resolvi: ‘rusticus episcopatur possibiliter,’ id est ‘possibile est rusticum episcopari’; et hoc figurato sensu; et sic iste modus expositus non infert episcopari sine modo, id est episcopari actualiter.”

certain inherence between two things, he thinks that nominals can be true even when there is no corresponding inherence *in re*.³⁹

With respect to this point, the position of M3 is very different from the one defended by Abelard, according to whom it is not always the case that a predication stated *cum adverbiali modo* entails the corresponding unqualified predication. Although Abelard also appeals to Priscian's idea that adverbs qualify the signification of verbs, he thinks that not every adverbial mode satisfies this characterization. According to Abelard, some adverbs are in fact said to be modes only improperly, with respect to their grammatical position but not with respect to their meaning, because they do not perform the semantic function of determining the signification of a verb.⁴⁰ This distinction allows Abelard to reinforce the parallel between the meaning of adverbial and of nominal modals, because he claims that the truth of both does not necessarily posit the existence of an actual inherence between things. However, this idea also forces him to distance himself from the traditional definition of modes as qualifiers, which was based on the authority of both Priscian and Boethius.

To sum up, we have seen that in early twelfth-century treatises on modalities two opposite views on the distinction between adverbial and nominal modals were advanced. On the one hand, authors like Abelard, Garland, the author of *GDS*, and perhaps the Magister W. mentioned in M3, maintained that the distinction between adverbial and nominal modals only affects their superficial grammatical level, but not their logical form or meaning. According to their "deep" syntactic structure, both propositions have the same subject and predicate, which are also the same as in the non-modal propositions from which they descend. Both categories of propositions would then be interpreted *de re*. Other authors, like the ones of M3 and M1 (and, though less clearly, the author of H9), suggest that the difference between the two kinds of claims is not limited to their grammatical structure but has to do with their nature and meaning. According to them, in nominal claims the modal term is the principal predicate and the subject is the entire proposition to which the mode is applied. Moreover, they claim that nominal propositions, in contrast to adverbial ones, do not express a qualified relation between subject and predicate, and posit no actual inherence between things. Nominal claims, then, are irreducible to an adverbial form, and should be interpreted *de sensu simplicium*, that is, as being about the *sensus* (or *dictum*) of simple propositions.

3 Modalities of Things and Modalities of Non-Things

In addition to debating the logical structure of modal propositions, early twelfth-century authors also took into consideration a number of problems concerning the signification

³⁹ This is in line with the idea – also defended in M3 and indeed very common among early twelfth-century logicians – that there can be true nominal propositions about non-existent beings. I will return to this in section 3.

⁴⁰ See for instance Peter Abelard, *Glossae super Peri hermeneias*, 394⁷⁴⁻⁷⁹. The distinction between "proper" and "improper" modes is rehearsed in later treatises, such as *GDS* (187¹⁹⁻²⁵; 215⁴⁷⁸⁻⁵⁰⁰) and *DPM* (231⁷⁻¹²). From the latter: "Modus alius proprie dicitur, modus alius improprie. Ille proprie dicitur modus, ex quo materialiter posito in propositione simplex potest inferri, ut ex ista *Socrates celeriter currit* potest inferri *Ergo Socrates currit*. Sunt autem alii qui hoc non habent, ut *falso, possibiliter, forsitan*, qui improprie et pro sola constructione modi dicuntur."

of modal words. A problem addressed in several treatises is whether the modal term included in nominal propositions like "*Possibile (necesse) est Socratem esse hominem*" has any denotation, and in particular whether it denotes a property of *possibilitas* or *necessitas* inhering in a subject. As far as I know, all authors who consider this question deny that this is a proper reading of modal terms, for, they argue, it would lead to a number of paradoxical consequences that must be avoided. This position may be found in H9 and rehearsed with similar arguments in M3, in Abelard's *Dialectica*, and also (although with some differences) in Abelard's *Logica* "*Ingredientibus*."

The view that modal nouns do not denote properties existing in things is often presented in tandem with another thesis, according to which nominal propositions like "It is possible for Socrates to be a human" do not posit the existence of any of the items the proposition is about – neither of a property of *possibilitas*, nor of Socrates himself or his other properties. This means that, in contrast to simple and adverbial propositions, nominal claims have no existential import and can be true despite being about non-existent things. This is a recurrent idea in early twelfth-century treatises on modalities: we find it in H9, M3, and in Abelard's *Dialectica*, as we will see, but also in other treatises such as Garland's *Dialectica*,⁴¹ *DPM*,⁴² and H13.⁴³ Common examples of true modal propositions about non-things are: "It is possible for a chimaera not to be a goat-stag" and "It is possible for my future son to exist."

The reasons why twelfth-century authors were inclined to maintain the truth of these nominal claims are not stated explicitly. One reason might be the assumption that *whatever is actually the case is also possibly the case*, a corollary of which is that *whatever will be the case at some future moment of time is now possible*. Because it is actually true that chimaeras are not goat-stags, it must also be possible for chimaeras not to be goat-stags. Similarly, because a certain state of affairs will actualize in the future, e.g. that my future son will be alive, it must be possible (now) for it to happen. The principle according to which we can infer possibility from actuality can be traced back to the authority of Aristotle and Boethius, and it is likely that, on the ground of this authoritative (and indeed rather intuitive) principle, early twelfth-century philosophers maintained the truth of modal claims about chimaeras and future beings.

Before considering the problem of non-things and their possibilities, I first return to the arguments used by early twelfth-century logicians to dismiss the idea that modal nouns signify a property of *possibilitas* or *necessitas* existing in things. An argument commonly used against this interpretation of modes was that it would imply the truth

⁴¹ Garland admits that propositions like "It is possible for a bird to fly" are true even in those situations in which no bird exists. Their truth is justified by saying that it is always possible for God to make it happen. See Garlandus Compositista, *Dialectica*, 84²¹⁻²³: "Item possibile est quod absolute omni tempore contingere potest, ut '*possibile est avem volare*': licet enim avis omni tempore non sit, potest tamen contingere ut fiat a Deo et ut volet."

⁴² Here propositions like "*Possibile est phoenicem predicari de pluribus*" and "*Possibile est infinita esse*" are said to be true when understood *de sensu*, which is the proper interpretation of nominal claims according to the author. See *DPM*, 233⁶⁷⁻⁷⁵.

⁴³ Here propositions like "*Chimera non est hircocervus*" are said to be necessarily true, inasmuch as they are true at every time (H13, 246^o). The proposition "*Necesse est chimeram non esse hircocervum*" and consequently also "*Possibile est chimeram non esse hircocervum*" are thus true according to the author, even though no chimaera exists.

of paradoxical *consequentiae*, such as that “If nothing exists, something exists,” or that “If nothing exists, a chimaera exists.” We find this sort of argument in H9, where the second consequence is shown to be paradoxical in the following way. Let us admit that nothing exists and that, consequently, Socrates does not exist. Consider now the proposition “It is not possible for Socrates to be a stone,” which (according to H9) is true independently of whether Socrates exists or not. From this proposition, it follows that “It is impossible for Socrates to be a stone,” in virtue of the equipollence rules between modes. But if we interpret the modal term as if it signifies a property of *impossibilitas* existing in Socrates, we would have to conclude that Socrates has such a property, and therefore that Socrates exists. This contradicts the premise, which said that nothing exists.⁴⁴

The author concludes by repeating that nominal modes like *possibile*, *impossibile* or *necesse* do not posit anything as existing in the things that the nominal claims are about (“*nichil ponunt in rebus de quibus agitur in propositionibus illis*”), and he proposes an analogy between nominal claims and adverbial ones in this respect. Just as the nominal proposition “It is possible for William to be a bishop” does not affirm that a certain property of *possibilitas* inheres in the subject, he says, so also adverbial claims like “William is a bishop possibly” do not express the inherence of the property of being a bishop in him, but they simply “predicate” this property of him:

For this reason we should say that, when ‘possible,’ ‘impossible,’ and ‘necessary’ are predicated in modal claims, they signify possibility, impossibility, and necessity, but they do not posit the existence of anything in the substances that modal propositions are about. In the same way, also when we say: “William is a bishop possibly,” ‘bishop’ signifies being a bishop, but not as *existing in* William, it [*sc.* being a bishop] is only *predicated of* him (my emphasis).⁴⁵

What the author of H9 seems to be pointing out here is that nominal claims, like adverbial ones, do not posit the existence of an actual relation between things, but they simply predicate a property, or form, of a substance without implying that this property inheres in it.

⁴⁴ See H9, ms Orléans, 37^a: “Notandum etiam quod iste voces ‘possibile,’ ‘necessarium’ et alii modi qui predicantur, nichil ponunt in rebus de quibus agitur in propositionibus illis. Si enim ponerent, sequeretur: ‘si nichil est, aliquid est,’ hoc modo: Verum est enim ‘si non est possibile Socratem esse lapidem, tunc impossibile est Socratem esse lapidem.’ Et si quia non est possibile Socratem esse lapidem, impossibile est Socratem esse lapidem. Et quia non est possibile Socratem esse lapidem, Socrates habet impossibile, et ita Socrates est. Et si quia non est possibile Socratem esse lapidem, Socrates est. Et quia nichil est, Socrates est – ab antecedenti, quia si nichil est, Socrates non est; si Socrates non est, non habet possibile, et ita non est possibile, et ita non est eum esse lapidem. Quare ‘si nichil est, aliquid est.’”

⁴⁵ See H9, ms Assisi, 65^b: “Quare dicendum est – quando [corrected from *quod*] ‘possibile’ et ‘impossibile’ et ‘necesse’ in modalibus predicantur – quod significant [corrected from *significant quod*] possibilitatem et impossibilitatem et necessitatem, sed non predicantur circa res de quibus agitur in propositionibus modalibus. Ut etiam quando dicimus ‘Vuilelmus est episcopus possibiliter,’ ‘episcopus’ episcopium significat, sed non in Vuilelmo, et predicatur tantum de eo.” I am very grateful to Wojciech Wciórka for pointing out the differences between the Assisi and the Orléans manuscripts on this point, and for discussing them with me.

Arguments similar to those of H9 can be found in M3, where the author presents two sorts of arguments *ad absurdum*: one showing that modal propositions like “It is possible for Socrates to be [P]” do not posit the existence of a property of *possibilitas* denoted by the mode; the other showing that they also do not posit the existence of this property’s bearer, that is, Socrates himself. One example of the first kind is the following: suppose that no chimaera exists. It would then be true that “It is possible for a chimaera not to exist” (presumably in virtue of the principle that whatever is actual is also possible). If we were to interpret the mode “possible” as positing the existence of a property of *possibilitas*, then from the fact that “It is possible for a chimaera not to exist” it would follow that “There is the possibility that a chimaera does not exist” (*possibilitas non existendi chimaeram est*), and from that we could infer that if no chimaera exists, then something exists, namely, the property of possibility itself. This is equivalent by contraposition to the claim that “If nothing exists, a chimaera exists,” which is absurd.⁴⁶

An example of the second kind of argument is the following: assume that Socrates will exist in the future. From this it follows that it is possible for Socrates to exist (again, in virtue of the fact that whatever will be actualized in a certain moment of time is now possible). But if we interpret modal nouns as referring to some property of *possibilitas*, we should admit that Socrates now has the possibility to exist, and therefore that Socrates already exists in the present (otherwise he could not be the bearer of any *possibilitas*). We have thus inferred the absurd claim “If Socrates will exist, then Socrates exists now.” After having offered these and other arguments, the author of M3 insists that “clearly these and many other inconveniences follow if we admit that the existence of something is posited by modal words.”⁴⁷

The author then mentions a strategy which was designed by Master W. to expound the signification of modes without falling into “inconveniences” of this sort. He says that Master W. used to expound the signification of modals by means of a “negative” clause (*in negativo sensu*). For instance, he took the claim “It is possible for Socrates to be an animal” as meaning: “It is not repugnant to the nature of things that Socrates is an animal.”⁴⁸ Although brief, the passage suggests that the definition of possibility in terms of non-repugnancy with nature – which was widely shared among logicians of this time⁴⁹ – had perhaps been introduced to avoid the ontological problems following from a

⁴⁶ M3, 254^b: “Investigato sensu modalium, videamus utrum aliqua proprietas per modalia nomina ponatur. Si enim per ea aliquid ponitur, multa sequentur inconvenientia. Quorum unum est: ‘si nulla res est, tunc chimera est.’ Quia ‘si chimera non est, aliqua res est.’ Quod sic probatur. Si chimera non est, possibile est chimeram non esse, et ita possibilitas non existendi chimeram est, et sic aliqua res est.”

⁴⁷ M3, 254^b: “Et aliud ‘si non est, est,’ hoc modo. Si non est, possibile est non esse; et sic possibilitas est; et sic aliquid est. Item ‘si erit, et est,’ sic: si Socrates erit, possibile est esse Socratem; et sic Socrates habet possibilitatem existendi; et ita est. Item ‘si non est, non possibile est esse,’ quia si est possibile esse, et est. Si Socratem esse est possibile, Socrates habet possibilitatem existendi; et ita possibilitas est in Socrate; et ita est. Quare ‘si possibile est esse, et est.’ Quare ‘si non est, non est possibile esse.’ Hec et plura alia inconvenientia, si per modales voces aliquid ponatur, sequi manifestum est.”

⁴⁸ M3, 255^a: “Unde m. W. exponebat eas in negativo sensu, ut istam: Socratem esse animal est possibile, id est non repugnat nature [corrected from *natura*] rei Socratem esse animal.”

⁴⁹ See Martin, “Modality,” and Binini, *Possibility and Necessity*.

“reification” of modal terms, that is, from the idea that modal nouns denote properties existing in things and that they therefore posit the existence of these properties’ bearers. The negative definition of possibility as “non-incompatibility with nature” might have allowed early twelfth-century logicians to speak about the possibilities of Socrates, of future beings, and even of chimaeras, without positing the existence of these things or of special modal properties or forms inhering in them.

The arguments just shown from M3 and H9 are based on the idea that there are true nominal propositions about non-existent things. Their reasoning implicitly rests on the assumption that propositions like “It is possible for Socrates to exist” or “It is possible for a chimaera not to exist” are true even in a situation in which there is no Socrates, and no chimaera. This assumption returns explicitly in other passages of M3, where it is used as a major argument against a *de rebus* interpretation of nominal claims. Rehearsing a *quaestio* that can be found in several other treatises of the time, the author of M3 asks what the modal term refers to when used in propositions like “It is possible for every human to be an animal,” or in other words, what it is that is said to be possible. Is it the words (*voces*) composing the proposition, the understandings (*intellectus*) generated by these words, or rather the things (*res*) that these words signify?⁵⁰ The author rapidly discards the idea that the modal terms should be attributed to words or understandings, but he dedicates more attention to the view that modal terms should be taken as referring to *res*. In particular, he considers the opinion of “some” who say that nominal claims like the one in the example should be understood as saying that “things have the possibility that every human is an animal” (*res habent possibilitatem quod omnis homo sit animal*). This cannot be the proper reading of modals, according to M3, for, if it were so, we would not be able to justify the truth of modal propositions dealing with non-existent beings, such as “It is possible for a chimaera not to be a goat-stag” or “It is possible for the world to exist,” uttered before the creation of the world. In fact, how could we say that these propositions are true (as M3 takes them to be), given that the things they deal with do not exist?⁵¹

⁵⁰ M3, 254^b: “Queritur quem sensum habeant iste modales et quid dicant. Cum enim dicimus ‘omnem hominem esse animal est possibile,’ quid dicimus esse possibile: sive has voces seu intellectum seu res que significantur ab his vocibus?” A similar *quaestio* can be found in other sources of the time, such as H20 and *DPM*. The authors of H20 and of *DPM* both maintain a position that strongly resembles the one presented in M3. See H20, 262^b: “Cum enim dicimus ‘omnem hominem esse possibile est,’ quid dicimus esse possibile? Vel has voces dicimus esse possibles, vel intellectus vel res. Si vel res vel intellectus vel voces dicimus possibles, iam vera erit ‘hominem esse lapidem possibile est.’ Res enim et voces et intellectus possibles sunt. Nobis videtur sensus sic exponendus. Cum dicimus ‘Socratem legere possibile est,’ non dicimus quod Socrates sit possibilis vel lectio Socratis vel voces vel intellectus, sed hunc sensum, scilicet sensum huic adiunctum possibile esse, id est possibile est quod Socrates legat.” See also *DPM*, 233⁷⁶⁻⁸².

⁵¹ M3, 254^b: “Sunt qui exponant ita ‘Omnem hominem esse animal est possibile’: res habent possibilitatem quod omnis homo sit animal. Sed hoc nihil est. Vera est enim ‘chimeram non esse hircocervum est possibile.’ Dicemus: quomodo [dicemus modo quod *ante corr.*] res habent possibilitatem quod chimera non sit hircocervus, quippe nulle res habent illam possibilitatem, quia neque chimera neque alia, tamen vera est illa propositio. Item antequam mundus fieret, si diceretur ‘possibile mundum fieri,’ vera esset talis propositio; sed cum nulla res esset, que res habebant possibilitatem ut mundus fieret? His et multis aliis exemplis nulla esse ostenditur illa expositio.”

It is in this context that the author of M3, having dismissed the idea that modal nouns should be taken as referring to *things*, offers his own interpretation, according to which modal terms in fact refer to the content (*sensus*) of simple propositions. According to him, when we say “It is possible for Socrates to read,” what we mean is that this *sensus* is possible: “Socrates reads,” that is, it is possible *that* Socrates reads (*possibile est quod Socrates legat*).⁵²

Ontological worries connected to the modalities of non-things may be found also in Abelard’s *Dialectica*, where, just as in H9 and M3, the author discusses whether by means of modal words like ‘possibile’ or ‘necesse’ a property of *possibilitas* or *necessitas* is posited in a substance. Closely following the same argumentation as the one used in H9, Abelard claims that if we were to interpret modal nouns as denoting a certain property inhering in things, paradoxical *consequentiae* would follow, such as “If something will exist in the future, then it exists now,” or “If something does not exist, then it exists.” To justify his rejection of this view, Abelard explicitly refers to the assumption that some modal claims are true despite being about non-existent things. The propositions “It is possible for a chimaera not to be,” “It is necessary for a chimaera not to be a human,” and “It is possible for a future son to be” are offered as examples. The signification of these propositions cannot be expounded as if their modal terms signify a property of possibility or necessity inhering in chimaeras or in future humans, because these things do not exist and no property can be predicated of them. On the contrary, Abelard says, propositions about possibility must be expounded in terms of what is compatible with nature, and those about necessity must be expounded in terms of what nature requires (*exigit*).⁵³

This view also returns in the *Logica “Ingredientibus.”*⁵⁴ Here Abelard says that because modal nouns like ‘possibile’ and ‘necesse’ seem to neither denote things nor signify properties, one might wonder about what exactly their signification is. The problem emerges when modes are used in nominal predications like “It is possible for what does not exist to exist,” “It is necessary that chimaeras do not exist,” or “It is necessary for God to be.” In these cases, modal terms clearly cannot be taken as denoting properties or things, for the first two claims are about non-existent beings,

⁵² M3, 254^b: “Nobis autem aliter videtur exponendus sensus modalium: cum dicimus ‘Socratem esse hominem’ vel ‘Socratem legere est possibile,’ non dicimus vel quod Socrates sit possibilis vel lectio Socratis vel quod voces vel intellectus sint possibles, sed hunc sensum: ‘Socratem legere’ esse possibile, id est possibile est quod Socrates legat. Et hoc respondeat qui de sensu modalium inquiretur.”

⁵³ Peter Abelard, *Dialectica*, 204¹⁻¹²: “Nunc autem utrum aliqua proprietas per modalia nomina, ut quidam volunt, predicetur, persequamur. Aiunt enim per ‘possibile’ possibilitatem predicari, per ‘necesse’ necessitatem, ut, cum dicimus: ‘possibile est Socratem esse vel necesse,’ possibilitatem aut necessitatem ei attribuimus. Sed falso est. Multe vere sunt affirmationes huiusmodi etiam de non-existentibus rebus, que, cum non sint, nullorum accidentium proprietates recipiunt. Quod enim non est, id quod est sustentare non potest. Sunt itaque huiusmodi vere: ‘filium futurum possibile est esse,’ ‘chimeram possibile est non esse,’ vel ‘necesse est non esse hominem’; nihil tamen attribui per ista his que non sunt, intelligitur, sed, ut superius dictum est, per ‘possibile’ id demonstratur quod natura patitur, per ‘necesse’ quod exigit et constringat.”

⁵⁴ Peter Abelard, *Glossae super Peri hermeneias*, 407⁴⁰³–408⁴²⁶. Abelard returns to the idea that modal nouns do not signify forms once more in the *Logica*, namely in the literal commentary on *De interpretatione* 13. See *Glossae super Peri hermeneias*, 472⁶¹³⁻⁶¹⁹.

which have no properties, and the third is about God, who also has no forms. According to Abelard, in these cases modal terms have no signification *per se*, but they “co-signify,” because rather than producing an understanding of their own, they express in what way things should be conceived (*modum concipiendi faciunt circa res subiectae orationis*). When we say that something is necessary we mean that it is inevitable, and when we say that it is possible we mean it is not repugnant to nature.⁵⁵

The views on nominal claims that Abelard seems to share with some of his contemporaries – that they do not refer to properties inhering in substances, and that they can be true despite being about non-existent things – reveal an inclination to a “non-*de re*” interpretation of nominal propositions. Admitting that we may truly talk about the possibilities of chimaeras or of future beings implies that modalities, at least in some cases, cannot refer to *things* and their properties. In the *Dialectica*, Abelard does not seem to realize that this view concerning the modalities of non-things stands in contrast with the *de re* reading he proposes. In the *Logica*, he is more careful in considering the problems related to the existential import of modal claims, and he insists that, because both adverbial and nominal modals should be understood *de re*, they all have an implicit import that must be satisfied in order for them to be true. He still admits, however, that there are exceptions to this general theory, since there are some nominal propositions that cannot be rephrased as having an adverbial form, and that can only be interpreted *de sensu*. Examples of propositions of this sort are the ones that were mentioned above, that is, “It is necessary that chimaeras do not exist” or “It is possible for what is not to be.”⁵⁶

4 Every Man Can Be a Cadaver, but Can a Cadaver Be a Man? Early Twelfth-Century Puzzles about Conversions

In section 2, I described a number of differences that, according to twelfth-century logicians, distinguish the nature of adverbial claims from that of nominal ones. There is yet another significant difference between the two, which has to do with their logical

⁵⁵ Peter Abelard, *Glossae super Peri hermeneias*, 407⁴¹²–408⁴²⁵: “At vero cum *possibile* vel *necessarium* sumpta non sint nec res aliquas nominando contineant nec formas determinant, quid significant quaeerendum est; non enim, cum dicitur: *Id quod non est possibile est esse* vel: *Deum necesse est esse* vel: *Chimaeram necesse est non esse* quasi formas aliquas in rebus accipimus. Dicimus itaque *necessarium* sive *possibile* in huiusmodi enuntiationibus magis consignificare quam per se significationem habere; nil quippe in eis est intelligendum nisi subiectae orationi applicentur, et tunc modum concipiendi faciunt circa res subiectae orationis sicut facit verbum interpositum vel coniunctio *si*, quae ad necessitatem copulat; ac, sicut in istis nulla imagine nititur intellectus sed quendam concipiendi modum anima capit per verbum vel per coniunctionem circa res earum vocum quibus adiunguntur, ita per *possibile* et *necessarium*. Et est hoc loco *necessarium* pro inevitabili, *possibile* quasi non repugnans naturae.”

⁵⁶ For a more detailed analysis of the way Abelard deals with empty terms in modal propositions, see Binini, “My Future Son.” See also Binini, *Possibility and Necessity*, chs. 4 and 5. According to Wciórka, Abelard does not apply the *de re* reading to nominal sentences as if it were their proper interpretation in every case, but only inasmuch as nominal claims are supposed to be modal. Abelard would thus admit that there are nominal claims that are not reducible to an adverbial and *de re* reading (e.g., the ones about chimaeras) simply because propositions of this sort should not be considered strictly modal. See Wciórka, *Piotr Abelard*.

behaviour with respect to conversions. While all authors of the time thought that the validity of conversions is preserved in the logic of adverbial claims, there was no agreement on whether conversions are also valid for nominal modals. We find at least three diverging approaches on this matter. The first is the one presented in H9, according to which all kinds of conversion are invalid for nominal claims. To prove this, the author of H9 provides a number of examples in which conversions apparently fail, although he offers no explicit justification for why this is the case. A different approach is presented by the author of M3, who agrees with H9 on the idea that conversions are generally invalid for nominal propositions, but advances different reasons and different cases to prove their invalidity. The analysis of conversions advanced in M3 seems to be based on what the author takes to be the only correct understanding of nominal modal claims, that is, the *de sensu* one. A third discussion on conversions in modal logic is offered by Abelard in the *Dialectica*. Abelard thinks that if we understand nominal claims properly, that is, *de rebus*, the laws of conversion are valid for nominal modal propositions just as they are for simple and adverbial ones. Moreover, he claims that the validity of conversions must be granted even if modal claims are interpreted *de sensu*, and that it is incoherent to maintain the *de sensu* reading on the one hand, and the invalidity of conversions on the other. This is one of the major arguments Abelard uses to charge his Master with inconsistency in his modal views.

As we will see, the examples of conversions used and discussed in H9, M3, and the *Dialectica* are the same, which may bear witness to the fact that the authors of these three texts were in dialogue with one another. What is most important for our purposes is the fact that Abelard and his contemporaries used conversions to explore and put forward their ideas on the proper interpretation of nominal modals, and that their diverging positions on conversions were in fact diverging positions on how modal terms should be understood. As we will also see, the positions outlined in H9 and M3 on this matter seem intrinsically confused, as they appear to incorporate inconsistent tenets. Abelard's position, on the other hand, clearly stands apart for its consistency, even though this consistency comes at the price of rather unintuitive views, such as that it is possible for a blind person to see, or for an old man to be young.

I start by considering the position advanced in H9, which seems to be the oldest one, and to which both the author of M3 and Abelard probably refer. H9 provides three examples to demonstrate the failure of, respectively, *per contrapositionem*, *per accidens* and simple conversion. Every example consists in a pair of propositions that should be equivalent by these methods of conversion, but in which the author takes one side as true and the other as false. The examples are the following:

- (1.a) It is possible for every non-stone to be a non-human – TRUE
- (1.b) It is possible for every human to be a stone – FALSE
- (2.a) It is possible for every human to be dead – TRUE
- (2.b) It is possible for some dead to be a human – FALSE
- (3.a) For no body is it necessary to be a human – TRUE
- (3.b) For no human is it necessary to be a body – FALSE⁵⁷

⁵⁷ See H9, ms Orléans, 33^b.

The truth of (1.a) is proved by an argument *a partibus*, by dividing the term “every non-stone” into two parts, the first including all the non-stones that are men and the second all the non-stones that are non-men, and then proving the truth of (i) “It is possible for every human to be a non-human” and (ii) “It is possible for every non-human to be a non-human.” The truth of (ii) is evident. The author of H9 also takes (i) to be true, and although there is no argument in support of it, we might suppose that the truth of (i) is based on the same assumption we encountered in the previous section, namely, that whatever will happen at some moment in time is now possible. As we will see, Abelard considers the very same proposition in the *Dialectica*, and says that his Master took it as true for exactly this reason.

H9’s treatment of conversions is hardly compatible with a *de sensu* interpretation of modals, because propositions like (i) or (2.a) are obviously false when interpreted *de sensu*, while they might be true according to a *de rebus* reading in which the possibilities of a thing are interpreted in terms of potentialities of “becoming” something else (which differs from the *de re* interpretation endorsed by Abelard). We might thus be tempted to attribute to the author of H9 a *de re* reading of modalities. This, however, would contrast with other elements included in his analysis of modals, which suggest instead an inclination for a *de sensu* reading of nominal claims. For instance, the author stresses the difference in syntax and meaning between adverbial and nominal claims, he takes the mode as being the principal predicate of nominal propositions, and he clearly admits that there are true nominal claims about non-existent beings.

These conflicting elements suggest that the author of H9 may not have fully grasped the distinction between the *de re* and *de dicto* readings, which is not difficult to presume given that this text could be dated quite early, almost certainly before Abelard’s *Dialectica*. Moreover, Abelard himself testifies in the *Dialectica* that some of his contemporaries held inconsistent views on modalities, believing that modal claims had to be understood *de sensu simplicium* and yet maintaining the truth of propositions like “It is possible for every human to be a non-human,” that is, our proposition (i). One of these people was, as is well known, Abelard’s Master, William of Champeaux.⁵⁸

Very similar examples to the ones considered in H9 are taken into account in M3, whose author, as we saw in section 2, seems to have a clearer comprehension of the semantic ambiguity of modal claims, and explicitly opts for the *de sensu* reading. His opinions on the proper interpretation of nominal claims are further developed in his discussion of conversions. When he discusses the propositions (1.a) and (2.a), which were also considered in H9, he first states that they are true. Rehearsing H9, he argues for the truth of (1.a) with an argument *a partibus*, which relies on the truth of (i) “It is possible for every human to be a non-human.” However, the author of M3 then reconsiders this position and says that propositions like (i), (1.a), and (2.a) are in fact false. This is because he thinks that they should be read *per compositionem*, meaning

⁵⁸ Peter Abelard, *Dialectica*, 195^{12–19}: “Est autem Magistri nostri sententia eas ita ex simplicibus descendere, quod de sensu earum agant, ut cum dicimus: ‘*possibile est Socratem currere vel necesse*,’ id dicimus quod possibile est vel necesse quod dicit ista propositio: ‘*Socrates currit*.’ Sed, si ita omnes exponant modales, miror quare conversiones in modalibus recipiant, aut quomodo pro vera teneant hanc: ‘*possibile est omnem hominem esse non hominem*,’ idest ‘*possibile est quod dicit ista propositio: omnis homo est non homo*.’”

that two incompatible predicates are said to possibly inhere at the same time in the same subject. His reading of (i), for instance, is such that the two predicates 'human' and 'non-human' are predicated simultaneously, as if we said: "It is possible for a human to be a non-human *while being a human*," which is evidently false.⁵⁹ M3 then continues by saying that – because both (1.a) and (1.b) are false, and the same is the case for (2.a) and (2.b) – these examples cannot be used to prove the invalidity of conversions, as was suggested in H9.

And yet, M3 claims that even though conversions do not fail in the examples just examined, they fail in other cases, such as in the following:

(4.a) It is possible for every young man to be an old man – TRUE

(4.b) It is possible for some old man to be a young man – FALSE

These examples are puzzling, for if we analyze them by applying the *de sensu* or *per compositionem* reading the author of M3 had just subscribed to, both propositions would turn out to be false, and there would be no problem for the validity of conversions in this case.

It is difficult to figure out what the author had in mind here. Perhaps, despite his explicit stance in favour of the *de sensu* interpretation, he was still driven by a residual *de re* understanding of possibilities in terms of potentialities, according to which what is possible for a substance is defined on the basis of what might be actualized in some future moment of its existence. As we have seen in the previous section, the assumption that whatever is or will be actual is also possible was quite widespread in debates on modalities around this time. Perhaps the author of M3 tried to refine this intuitive understanding of possibility by adding the constraint that nothing can be predicated of a thing that is incompatible with its actual nature, for that would result in a simultaneous predication of two incompatible predicates, as is the case in (2.a) and (i). What is certain is that the *de sensu* reading of modalities that the author of M3 claims to endorse does not correspond to what Abelard calls *de sensu* in the *Dialectica*, nor with what he calls *per compositionem* in the *Logica*, for according to Abelard's definition both propositions (4.a) and (4.b) would be false *de sensu* and *per compositionem*.

The last discussion of conversions I want to consider is the one presented by Abelard in the *Dialectica*. As was mentioned, Abelard's famous critique of his Master's modal theory is partly based on rejecting his Master's treatment of conversions, which Abelard charged of inconsistency because it requires that nominal modals are read *de sensu*, and at the same time that conversions are invalid for them. The examples Abelard's Master used to prove the failure of conversions are the ones we have already encountered in H9. According to Abelard's report, his Master held that propositions like (2.a) and (i) are true on the basis of the fact that "whatever is future is possible" (*quod futurum est*,

⁵⁹ See M3, 254^a: "Nos vero aliter dicimus. Quis enim veras illi dicunt, nos falsas et econverso. Ista enim 'omnem hominem esse non hominem est possibile' et 'omnem hominem esse mortuum est possibile' nullo modo concedimus. Nihil quippe quod sit homo vel possit esse homo, potest esse non homo vel mortuum, immo impossibile est quod homo et non homo inhereant vel simul sint homo et mortuum. Sic plane falsa est 'omnem hominem esse non hominem est possibile,' id est possibile est hominem et non hominem inhaerere, quia 'esse' dicit 'inherere.'"

possibile est).⁶⁰ And yet, Abelard says, if these claims are interpreted *de sensu simplicium* – that is, as saying “what this proposition says: ‘every human is a non-human’ is possible” – they will turn out to be false, just like the converted ones.⁶¹

Abelard and the author of M3, then, agree about the fact that propositions like (i) and (2.a), if read *de sensu*, must turn out to be false. And the object of both their criticisms seems to be the reading of nominal claims offered in H9. Abelard and M3 differ, however, as to the analysis of propositions like “It is possible for an old man to be young” (Abelard discusses parallel propositions such as “It is possible for someone who is blind to see”).⁶² As we have seen, the author of M3 takes these propositions to be true despite his preference for the *de sensu* reading, while Abelard says that propositions of this sort are false *de sensu*, and that they therefore cannot be used as examples of the invalidity of conversions.

In both the *Dialectica* and the *Logica*, Abelard defends his preference for a *de re* reading of modalities, maintaining that modal terms fundamentally refer to things and their natures, and can only be attributed derivatively to *dicta* and propositions. In both works, Abelard expounds the signification of modes in terms of relationships of compatibility and incompatibility between certain predicates and the nature of things. According to this paradigm, a proposition of the form “It is possible for (an) S to be P” is true if being P is not incompatible (*non repugnans*) with the nature of S; while necessity is defined on the basis of what is required (*exigitur*) by the subject’s nature.⁶³ By means of this definition of modalities, Abelard is able to show that the laws of conversion (with the exception of conversion by contraposition, which is not generally valid even for simple claims) are valid for nominal claims. Take for instance the proposition (2.a) “It is possible for every human to be dead.” This proposition is false *de re* according to Abelard,⁶⁴ for being dead is incompatible with the nature of humans. It is then equivalent to its converse (2.b), in which the same incompatibility is stated between what is signified by the predicate and the nature of the subject. The same reasoning is applied to the pairs (1.a)–(1.b) and (3.a)–(3.b). In the case of propositions like (4.a) “It is possible for a young man to be old” or “It is possible for someone who sees to be blind,” however, Abelard agrees with M3 that they are true, but so, he says, are their converses (4.b) “It is possible for an old man to be young” or “It is possible for a blind man to see,”

⁶⁰ Peter Abelard, *Dialectica*, 196⁷⁻⁹: “Quod enim futurum est, possibile est; aliter enim futurum non esset, nisi scilicet possibile esset; neque enim futurum est quod natura non patitur.”

⁶¹ Peter Abelard, *Dialectica*, 196¹²⁻¹⁵: “Sed, si quidem sue sententie expositionem attenderent, et primam falsam dicerent, hanc scilicet: ‘*possibile est omnem non-lapidem esse non-hominem*,’ idest ‘*possibile est quod dicit hec propositio: omnis non-lapis est non-homo*.’” We have already seen that the proposition (i) “It is possible for every human to be a non-human” was used to demonstrate the truth of (1.a) “It is possible for every non-stone to be a non-human.” We can see this tacit assumption at work in this passage from Abelard.

⁶² Peter Abelard, *Dialectica*, 196¹⁵⁻²⁸.

⁶³ This definition of possibility was quite widespread among authors of the time (see Martin, “Modality,” and Binini, *Possibility and Necessity*, 105–118 on this). This is not the case for Abelard’s definition of necessity in terms of what nature “requires” (*exigit*), which – to my knowledge – is only used by authors that had some acquaintance with Abelard’s work, such as the author of *DPM* (233⁶⁴⁻⁶⁶).

⁶⁴ Although he admits that it is true in the sense that “it is possible for *that which is human* (*id quod est homo*) to be dead” (Peter Abelard, *Dialectica*, 197²⁻³¹).

for even if it is not possible for a blind person to have her sight restored, or for an old man to regain youth, it is still not repugnant to their nature to have these properties. Abelard's interpretation of modals, then, has nothing to do with the intuitive reading of possibility in terms of what things will potentially become – while this reading seemed to form the background for the discussions of conversion in H9 and M3.

5 Conclusion

In section 2, we saw that the dichotomy between two different readings of modal claims first emerged as a syntactical distinction, as an answer to the problems of establishing the proper subject and predicate in nominal propositions, and of accounting for the relation between modal and simple claims. The debate about the structure of modal claims was intertwined with the problem of whether nominal modals can be rephrased as having an adverbial form or not. Authors stressing the difference in syntax and meaning between adverbial and modal claims (such as the author of M3, M1, and – though less clearly – of H9) were inclined to analyze nominal claims as *de sensu* and adverbial claims as *de re*. Authors who instead maintained the reducibility of nominal modes to adverbial ones, like Abelard and others, suggested that every modal proposition could be reduced to an adverbial and personal expression, which allowed it to be read *de rebus*.

In section 3, I showed that all twelfth-century authors agreed on the idea that nominal modes should not be taken as denoting a certain property of *possibilitas* or *necessitas* inhering in things, and that therefore the predication of possibility and necessity does not imply the existence of these properties. They also rejected the idea that the truth of nominal modals entails the existence of their subjects, and admitted that there are in fact true nominal claims predicating modalities of non-existent beings, such as chimaeras, goat-stags, or future children. These views on nominal claims reveal an inclination for a “non-*de re*” interpretation of these modals, for they seem incompatible with the idea that modal terms refer to things and their properties. The author of M3 rejects a *de re* reading of nominal modes precisely because he thinks that we can truly predicate possibilities of non-things. Other authors, like the Master W. quoted in M3, suggest a negative definition of possibility (in terms of non-compatibility with nature) to avoid ontological problems related to a “reification” of modal terms. Abelard apparently held inconsistent views on this point, for in the *Dialectica* he admits that modal propositions about chimaeras or other non-things may be true, while in the *Logica* he states that if we want to interpret modal claims *de rebus*, we must interpret them as containing an implicit existential import, which has to be satisfied for the propositions to be true.

Finally, section 4 compared the views offered in H9, M3, and Abelard's *Dialectica* on the validity of conversions. I suggested that the discussion of this topic presented in M3 and in the *Dialectica* may be based in great part on the parallel discussion in H9. I also showed that while the authors of H9 and M3 had probably grasped some of the difficulties connected to the semantic ambiguity of nominal modals, they did not consistently distinguish between the *de re* and the *de sensu* reading, and their confusion is reflected in their treatment of conversions. A systematic theorization of this

distinction, and its application in the treatment of conversions, can only be found in Abelard's *Dialectica*.

As a very last conclusion, I cannot but remark that this is only a preliminary study of early twelfth-century debates on modalities, and that many things still remain to be investigated and understood about these sources and their relation to Abelard's work. Scholars are now becoming more and more aware of the fact that the works of Abelard's contemporaries are just as exciting as those of Abelard himself, and this is certainly a promising perspective for future studies.

References

Authors before ca. 1500

- Anonymous, *De modalibus* (M3). Orléans, Bibliothèque Municipale, ms 266, 252^b–257^b.
 Anonymous, *De modalibus propositionibus* (M1). Orléans, Bibliothèque Municipale, ms 266, 166^a–169^a; Paris, Bibliothèque Nationale de France, ms lat. 13.368, 175^{va}–177^{ra}.
 Anonymous, *De propositionibus modalibus*, eds. K. Jacobi and C. Strub. *Corpus Christianorum, Continuatio Mediaevalis* 206A (Turnhout, 2016).
 Anonymous, *Glossae "Doctrinae sermonum,"* ed. P. King. *Corpus Christianorum, Continuatio Mediaevalis* 206A (Turnhout, 2016).
 Anonymous, *In Perihermeneias* (H4). Paris, Bibliothèque Nationale de France, ms lat. 13.368, 128^r–145^r.
 Anonymous, *In Perihermeneias* (H5). München, Bayerische Staatsbibliothek, Clm. 14.779, 44^r–66^r.
 Anonymous, *In Perihermeneias* (H9). Orléans, Bibliothèque Municipale, ms 266, 5^a–43^a; Assisi, Biblioteca del Sacro Convento di S. Francesco, ms 573, 48^{rb}–67^{vb}.
 Anonymous, *In Perihermeneias* (H13). Orléans, Bibliothèque Municipale, ms 266, 237–257.
 Anonymous, *In Perihermeneias* (H20). Orléans, Bibliothèque Municipale, ms 266, 257–263.
 Anonymous, *In Perihermeneias* (H21). Paris, Bibliothèque de l'Arsenal, ms 910, 83^r–91^r.
 Garlandus Composita, *Dialectica*, ed. L. M. de Rijk (Assen, 1959).
 Peter Abelard, *Dialectica*, ed. L. M. de Rijk. 2nd ed. (Assen, 1970).
 Peter Abelard, *Glossae super Peri hermeneias*, eds. K. Jacobi and C. Strub. *Corpus Christianorum, Continuatio Mediaevalis* 206 (Turnhout, 2010).
 William of Lucca, *Summa dialetice artis*, ed. L. Pozzi (Padua, 1975).

Authors after ca. 1500

- Binini, I. "Discussing Modalities in the Mid-Twelfth Century: An Introductory Study of the *Introductiones Montane Maiores*, the *Summa Periermeneias* and the *Ars Meliduna* on the *de re/de dicto* Distinction." *Documenti e studi sulla Tradizione filosofica medievale* 31 (2020), 89–120.
 Binini, I. "'My Future Son Is Possibly Alive.' Existential Presupposition and Empty Terms in Abelard's Modal Logic." *History and Philosophy of Logic* 39 (2018), 341–356.
 Binini, I. *Possibility and Necessity in the Time of Peter Abelard* (Leiden, 2021).

- Cameron, M. "Abelard's Early Glosses: Some Questions." In *Arts du langage et théologie aux confins des XI^e–XII^e siècles. Textes, maîtres, débats*, ed. I. Rosier-Catach (Turnhout, 2011), 647–662.
- Dutilh Novaes, C. "A Medieval Reformulation of the *De Dicto/De Re* Distinction." In *The LOGICA Yearbook 2003*, ed. L. Behounek (Prague, 2004), 111–124.
- Marenbon, J. "Logic at the Turn of the Twelfth Century: A Synthesis." In *Arts du langage et théologie aux confins des XI^e–XII^e siècles. Textes, maîtres, débats*, ed. I. Rosier-Catach (Turnhout, 2011), 181–217.
- Marenbon, J. "Medieval Latin Commentaries and Glosses on Aristotelian Logical Texts, before ca. 1150 A. D." In *Glosses and Commentaries on Aristotelian Logical Texts: The Syriac, Arabic and Mediaeval Latin Traditions*, ed. C. Burnett (London, 1993), 77–127.
- Martin, C. J. "A Note on the Attribution of the *Literal Glosses* in Paris, BnF, lat. 13368 to Peter Abaelard." In *Arts du langage et théologie aux confins des XI^e–XII^e siècles. Textes, maîtres, débats*, ed. I. Rosier-Catach (Turnhout, 2011), 605–646.
- Martin, C. J. "Modality Without the Prior Analytics: Early Twelfth Century Accounts of Modal Propositions." In *Logical Modalities from Aristotle to Carnap: The Story of Necessity*, eds. M. Creswell, E. Mares and A. Rini (Cambridge, 2016), 113–132.
- Wciórka, W. *Piotr Abelard o związkach koniecznych i przygodnych*, Dissertation (University of Warsaw, 2012).