The Theories of Relations in Medieval Commentaries on the *Categories* (mid-13th to mid-14th Century)

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0. Introduction

The few general studies of medieval theories of relations that have appeared during the last 20 years have shed light on the general purpose of such theories and their development.[1] It is clear that the medievals were interested in the theories of relations mainly because of their theological implications, and these implications were taken into account not only by theologians but also by some 13th- and 14th-century Parisian Masters of Arts. Nonetheless, modern attempts to sketch an outline of the development of theories have not paid due attention to the many extant commentaries on the *Categories*, and in particular not to those from the second half of 13th century. Filling this gap is the first aim of this paper, but I also wish to point to another field of medieval thought where the theory of relations had strong implications, that is the field of semantic or more broadly semiotic theories.

1. Some general questions discussed in the 13th and 14th centuries

Aristotle's *Categories* 7 and *Metaphysics* V.15 are the main sources for a theory of relations in the 13th and 14th centuries. In the first text, Ar-

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1. Cf. Henninger 1989; Marmo 1992; Brower 1996, 1998, 2001, 2005.

istotle discusses two general definitions of relative things (toward something, πρός τι) and some of their general features. He holds, in particular, that they are a peculiar kind of accident that inheres in substances and refers to something else. In the *Metaphysics*, he adds a threefold distinction of relative accidents, exemplified by (i) the relation between what is double and its half, (ii) the relation between what heats and what is heated (or between what acts and what undergoes the action), and (iii) the relation between what is measurable and its measure, or what can be known and the knowledge of it (1020b26-32). In all these cases, Aristotle conceives relation as a kind of accident which inheres in a subject, i.e. as a monadic property and not as a dyadic or polyadic one, as Brower (2005) rightly points out.

In the *Categories* Aristotle examines two definitions of relative. The first definition, at the beginning of ch. 7, says that

> we call the following sort of things relative [*literally:* toward something]: all those things said to be just what they are *of* or *than* something, or *toward* something in some other way.[2]

The second comes, after a long and critical discussion about the properties of relative things, as a correction of the first one:

> relative things [*litt.* towards something] are rather [defined as] those things for which this is their very being: to be toward another in a certain way.[3]

These texts and their interpretations were the starting point for all the classifications of relations in the second half of the 13th century.

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2. Arist., *Cat.* 7, 6a36-37 (transl. in Brower 2005, § 2.2). The Latin translation provided by Boethius runs as follows: "Ad aliquid vero talia dicuntur quecumque hoc ipsum quod sunt aliorum dicuntur, vel quomodolibet aliter ad aliud" (*Aristoteles Latinus, Cat. Editio composita*, p. 18).

3. Arist., *Cat.* 7, 8a31-32 (transl. in Brower 2005, § 2.2). The Latin translation by Boethius was the following: "sunt ad aliquid quibus hoc ipsum esse est ad aliquid quodam modo habere" (*Aristoteles Latinus, Cat. Editio composita*, p. 22).

Many medieval philosophers and theologians in this period share the general assumption that lies behind Aristotle's discussion, namely that relations are monadic properties or forms inhering in individual subjects and pointing to something else. They also agree on the fact that *every relation links two, and only two, subjects or elements (extrema)*: the subject of inherence and the so-called 'term' (*terminus*) of the relation, the proper *relativum* and the *correlativum*.[4] The standard examples are *similarity* and *fatherhood*. Similarity is a relation that holds between two individuals who share the same quality, whiteness for instance; furthermore, similarity is a symmetrical relation (*relatio aequiparantiae*) because the same term, i.e. 'similar', can be predicated of each of the individuals; and according to so-called 'non-reductive realism',[5] each individual is the subject of inherence of the property of being white (which is the ground or *fundamentum* of the relation) and is also the subject of inherence of the relational property of being similar; finally, this property has as its term (*terminus*) the other individual that shares the property of being white (and the relational property of being similar). Fatherhood, however, is a relation that holds between two individuals one of whom is the parent of the other (or, we might say, is one of the causes of his/her birth): in this case only one of them can be called by the denominative noun 'father' derived from the relational 'fatherhood', which indicates a real property existing in that individual as its subject while having the other individual as its term, that is the son (the relation of fatherhood therefore is asymmetric – *relatio disquiparantiae* –, sonhood being the converse relation).

Besides this general assumption, I must also mention some ontological assumptions that are not equally shared by all my authors. Virtually all 13th-century authors, and some of those from the 14th century as well, take relations to be real accidents, although *sui generis*, existing as such in individual subjects and really connecting those individuals to other individuals. Others, notably Ockham

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4. It means that relations were not conceived of as polyadic properties (*pace* Brower 2005), as is clear from the discussions about signification (see Rosier-Catach 2004, chapt. 1).

5. I follow the taxonomy proposed by Brower 2001 and 2005.

and Buridan in the 14th century, deny the existence of such properties and consider relations to be concepts that human beings form in their minds, but admit that these concepts are fit to describe the world as it is, so that relations are mind-independent: the truth of a proposition of the form 'aRb' does not depend on some intellect thinking it.[6] That is why Brower (2001 and 2005) labels both groups of philosophers as realist, but the former 'non-reductive' and the latter 'reductive' ones. Peter Auriol, who maintains that all relations are mind-dependent (*relationes rationis*), belongs to neither group.[7]

In the questions on the *Categories* devoted to relations, the Masters of Arts of the last decades of the 13th century discuss a more or less fixed set of questions, which includes

- the ontological status of relations (are they real or only mind-dependent?);[8]
- the distinction between a relation and its ground (*fundamentum*);[9]
- the existence of a *genus generalissimum* (and what is its name: *relatio* or *relativum*?);[10]
- the types and properties of relations (such as the simultaneity of the terms of a relation, be it symmetric or not; and so on);[11]

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6. Cf. Henninger 1989: 131.

7. See also Henninger 1989. I would prefer to call 'realists' only the first group (from Albert the Great to Scotus), while putting the members of the second group among 'anti-realists', distinguishing, though, between 'objectivists', like Ockham who acknowledges the independence of relations from the activity of the mind, and 'subjectivists', like Auriol who denies it.

8. See Martin of Dacia, *Quaest. sup. Praed.*, q. 42, 203-204; Peter of Auvergne, *Quaest. sup. Praed.*, qq. 46-47, 64-68; Thomas Sutton, *In Cat.*, in Conti 1985, 205-207; Radulphus Brito, *Quaest. sup. Praed.*, q. 23, ms. Bruxelles, Bibliothèque Royale, 3540-47, ff. 89v-90v; John Buridan, *Quaest. in Praed.*, q. 10, 71-74. William of Ockham discusses the questions in his *Quodlibet* VI, q. 25, 678-682; q. 30, 698-701.

9. See Martin of Dacia, *Quaest. sup. Praed.*, q. 43, 205; Anonymus Matritensis, *Quaest. in Praed.*, q. 29, 160; Simon of Faversham, *Quaest. in Praed.*, q. 42, 134-137.

10. See Martin of Dacia, *Quaest. sup. Praed.*, q. 40, 201; Peter of Auvergne, *Quaest. in Praed.*, qq. 53-54, 74-76; Anon. Matritensis, *Quaest. in Praed.*, q. 27, 158; Simon of Faversham, *Quaest. in Praed.*, q. 41, 131-134; Radulphus Brito, *Quaest. sup. Praed.*, q. 25, ff. 91r-92v; John Duns Scotus, *Quaest. in Praed.*, q. 25, 423-439; John Buridan, *Quaest. in Praed.*, q. 11, 82-83.

11. See Peter of Auvergne, *Quaest. in Praed.*, qq. 55-58, 76-80; Simon of Faversham, *Quaest. in Praed.*, qq. 25-27, 98-101; Radulphus Brito, *Quaest. sup. Praed.*, qq. 26-28, ff. 92v-

- the inherence of accidents in their subjects as a kind of relation;[12]
- finally, the unicity of the relation that holds between two subjects (be it symmetrical or asymmetrical).

The changes of opinions, from Martin of Dacia in the early 70s to Radulphus Brito in the 90s, are often very slight and subtle. All authors acknowledge the extra-mental reality of relations;[13] and deny that the category of relation includes both real and mind-dependent relations:[14] the two kinds of relation are not species of the same *genus generalissimum*, because, as Scotus says, "there is nothing that univocally applies to what exists outside the soul and what exists only in our mind",[15] or, as Brito holds,

> mind-dependent relations do not fall as such under the category of relation, only real relations do so, because in *Metaphysics* VI the Philosopher divides what exists outside the soul into the ten categories.[16]

The linguistic turn of William of Ockham represents a radical shift in the ontological interpretation of categories and relations. For him there exist no real entities corresponding to our relational concepts;[17] relations are rather connotative terms or concepts, which stand for real individual substances or qualities while connoting

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96r; John Duns Scotus, *Quaest. in Praed.*, q. 27, 447-453; John Buridan, *Quaest. in Praed.*, q. 12-13, 86-99.

12. See Martin of Dacia, *Quaest. sup. Praed.*, q. 47, 208-209; and Anon. Matritensis, *Quaest. sup. Praed.*, q. 34, 164-165; John Duns Scotus, *Quodl.*, q. 3, 82 (cf. Marmo 1989, 148-149).

13. Cf., for instance, Thomas Sutton, *In Cat.*, in Conti 1985, 206.

14. See Martin of Dacia, *Quaest. sup. Praed.*, q. 42, 203; John Duns Scotus, *Quaest. sup. Praed.*, q. 25, 428; Radulphus Brito, *Quaest. sup. Praed.*, q. 23, f. 90r.

15. John Duns Scotus, *Quaest. sup. Praed.*, q. 25, 427: "non omni enti est aliquid univocum, nec etiam omni enti naturae est aliquid univocum; igitur multo magis nec aliquid erit univocum enti et non-enti, sive enti rationis".

16. Radulphus Brito, *Quaest. sup. Praed.*, q. 23, f. 90r: "Nota tamen quod relatio rationis non est [illa relatio que] in predicamento relationis per se, set solum relatio realis, quia Philosophus, 6to Methafisice, diuidit ens uerum extra animam in X predicamenta".

17. William of Ockham, *Ord.*, I. d. 30, q. 3, 340ff.

other individual substances or qualities. Furthermore, other traditional distinctions, such as that of real vs. mind-dependent relations, lose their relevance in Ockham's philosophical discourse. As will be clear in what follows, this change is not without consequences for his theory of signification.

2. Slight changes in non-reductive realist positions in the second half of the 13th century

Some slight changes can be recorded among the Parisian Masters of Arts of the second half of the 13th century. Following a rather traditional interpretation of the two definitions of *ad aliquid* in chapter 7 of the *Categories*[18] some commentators, such as Gentilis of Cingoli, a Bolognese master of arts from the end of the 13th century, refer the first to the *relativa secundum dici*, and the second one to the *relativa secundum esse*.[19] This position is referred to as *opinio communis* and rejected by Scotus.[20] Other commentators, however, think that the first definition includes both *per se* and *per accidens* relatives (such as *knowledge* and its object), while the second definition regards exclusively *per se* relatives (such as a *father* with respect to his son or vice versa).[21] For some commentators, for example, Angelus of Arezzo (a pupil of Gentilis of Cingoli), the first distinction includes the second one, so that the couple *per se / per accidens* is included in the relatives *secundum esse*;[22] other commentators, in particular the authors of question commentaries, simply pass over in silence the problem of the relation between the two sets of relatives.

Duns Scotus holds that the first definition of *ad aliquid* has nothing to do with relations or relative concepts:

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18. See for instance, Lambert of Auxerre, *Logica*, 80.
19. Gentilis of Cingoli, *Sententia et notabilia sup. lib. Praed.*, ms. Firenze, BN, Conv. Soppr., (S. Croce), J.X.30, f. 35va (in Marmo 1992, 384)
20. John Duns Scotus, *Quaest. sup. Praed.*, q. 26, 442.
21. See Petrus de Sancto Amore, *Sententia et notabilia sup. lib. Praed.*, ms. Paris, BN, Nouv. Acqu. Lat. 1374, f. 25rb (in Marmo 1992, 387)
22. See Marmo 1992, 384-386.

We have to say that relatives do not divide into *relativa secundum esse* and *relativa secundum dici*, because if we take properly the members of the division, a *relativum secundum esse* is no more a relative than a dead man is a man.[23]

In another question about the property of simultaneity of relatives, Scotus does, however, make use of the second distinction, that between *relativa per se* and *relativa per accidens*, and exemplifies it by means of the traditional examples of *scientia* and *scibile*: the first of which refers to the second *per se*, while the second refers to the first *per accidens*, that is, only because the first one refers to it.[24] In Brito's questions on the *Categories*, on the other hand, we find no reference to the distinction between *relativa secundum dici* and *relativa secundum esse*; and even if in q. 24 he makes use of the distinction between relation *per se* and relation *per accidens* as applied to science and its object,[25] in the following question he seems to change his mind. After having mentioned again the examples of *scientia* and *scibile*, in a marginal addition to question 25, he adds that *scientia* is not a relative term or a relation, but rather a quality (a *habitus*) which can exist in the human mind without referring to its object. There is, however, another relative accident, with which knowledge is joined: that of conformity with its object, as this is essential for a cognitive habit to be knowledge in the strictest sense of the word.[26] When this conformity is missing, because the thing or the object of knowledge does not exist, then the knowledge through which we know *that* that thing ex-

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23. John Duns Scotus, *Quaest. sup. Praed.*, q. 26, 443: Dicendum igitur quod relativa nullo modo dividuntur in relativa secundum esse et relativa secundum dici, quia sumendo membra praecise, relativum secundum dici non est magis relativum quam homo mortuus est homo.

24. John Duns Scotus, *Quaest. sup. Praed.*, q. 27, 449-450.

25. Radulphus Brito, *Quaest. sup. Praed.*, q. 24, f. 91r: "Cum dicitur quod in deo est relatio, dico quod relatio cause ad causatum et principii ad principiatum est relatio per accidens, quia causa non refertur (causatur *ms.*) ad causatum nisi quia causatum ad causam refertur; modo, talis relatio fundatur in altero extremo, quia per se refertur; et ideo ista relatio fundata est in causatis et principiatis et non in deo, sicut in scibili et scientia, quia scibile per se non refertur ad scientiam, nisi quia scientia refertur ad scibile, ideo ista relatio que est inter scibile et scientiam est in scientia."

26. Radulphus Brito, *Quaest. sup. Praed.*, q. 25, f. 92v *in mg.*

ists and has certain properties ceases to exist; but the same does not apply to the knowledge through which we know *the causes by which* the thing may exist and the properties that the thing will have if existing, the sort of knowledge by which we know something about rain or eclipses even when they do not actually occur.[27] In such cases, the conformity relation is independent of the actual existence or nonexistence of the object of knowledge. In this sense, knowledge is no more a *per se* relative and *scibile* a *per accidens* relative, but both refer to each other in virtue of the unique relation of conformity that connects them, as Brito explicitly says in his commentary on *Priscianus minor*.[28] This change, as I will show, has some consequences for Brito's theory of signification.

3. The implications of the theories of relations for the theories of signification: Brito and Ockham

3.1. Modists' theory of signification

Before returning to Brito, I would like to recall some of his predecessors' theories about signification in order to show how they depend on the theory of relations. Martin of Dacia, for instance, in his *Modi significandi*, defines the *dictio* as a phonic expression (*vox*) that has a *ratio significandi aliquid*, that is, one which is able to signify something; Martin adds that:

> <*dictio*> means for me something composed of a signifying phonic expression and thing signified.[29]

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27. Radulphus Brito, *Quaest. sup. Praed.*, q. 27, f. 94r-v. Brito's position is the same as Boethius of Dacia's, cf. Ebbesen 2000: 150-152.
28. See also Radulphus Brito, *Quaest. in Prisc. Min.* I, q. 22, 169: "est eadem relatio qua scientia refertur ad scibile et econverso et intellectus ad intelligibile et econverso."
29. Martin of Dacia, *Modi signficandi*, Pro., 8: "<dictio> dicit enim michi aliquid compositum ex voce significante et re significata." I leave the term *dictio* untranslated because, in Modistic theory, it is not yet a word, lacking the *modi significandi* (or *rationes consignificandi*).

In his commentary on the *Categories*, Martin deals very quickly with a problem that will emerge frequently in the following generations of commentators on the *Sophistici Elenchi*: whether the *ratio significandi* that the intellect adds to the phonic expression is something *really* added to it or not. His answer is that it isn't, but he fails to clarify the nature of this *ratio*. His commentators take him to task for this. Thus Gentilis of Cingoli criticises Martin's definition of *dictio*, and claims that the *dictio* is no more composed of the *vox* and the thing signified (*res significata*), than the *circulus vini* is composed of the sign and the sale of wine; it is rather composed of the *vox* as its matter and the *ratio significandi* as its form.[30] Petrus Croccus, commenting on Alexander of Villadei's *Doctrinale*, adds that this form is a *respectus*, that is, a relation. Almost all the Modist commentators on the *Sophistici Elenchi* hold that a *dictio* is a unity of *vox* and *ratio significandi*, often adding that the latter is to be considered as the substantial form of the *dictio* itself, as if linguistic units were natural substances rather than artificial objects. This evolution of the notion of *dictio* reveals a tendency to give objective (if not real) existence to the relation of signification (and consequently to the *modi significandi* or *rationes consignificandi* that are added to the *dictio* in order to produce a *pars orationis*). On this background, the discussion in Martin of Dacia's commentary on the *Categories* about whether the relation is really added to the phonic expression starts to look like a preventive defense against a tendency to picture linguistic properties as objective (or real) accidents.[31]

Radulphus Brito plays a peculiar role in this story, but on another point of grammatical doctrine, namely the integration of the so-called *modi significandi passivi* into the theoretical framework of modism as found, for instance, in Thomas of Erfurt's treatise.[32]

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30. See Marmo 1994, 114-115.

31. Master Simon, commenting on the *Modi significandi*, would go further on this way maintaining that "ipsum significatum non est in uoce significatiua formaliter, set intentionaliter et similitudo signati quodammodo est in ipsa uoce" (cf. Marmo 1994: 135).

32. *Modi significandi passivi* were already present in Peter of Auvergne's commentary on the *De interpretatione* and in the Anonymi Ebbeseniani commentators on the *Elenchi*, but their inclusion in the framework of the *grammatica speculativa* was not yet accomplished.

Brito's undertaking depends exactly on the slight change in his theory of relations I mentioned above. Before him, both *ratio significandi* (or the sign) and *ratio consignificandi* (or the *modus significandi*), for all their being classified as mind-dependent relations, were also conceived of as asymmetric *per accidens* relations (or relatives), on the model of the relation between knowledge and its object, where only the former refers *per se* to the latter, but not conversely: the *res significata* (or the *modus essendi* or property of the signified thing) does not refer *per se* to the linguistic sign, but only *per accidens* because the *dictio* (or *pars orationis*) refers to it. All the discussions about the subject of the *modi significandi* are based on this premise. This picture holds, however, only for the first generation of Modists (Martin and Boethius of Dacia).

When the *modi significandi passivi* are introduced the picture changes. The relations involved in this case are two. Master Simon, commenting on the *Modi significandi*, is very clear about that:

> This active relation of signification, as well as any other relation, necessarily has a ground in two elements, the subject and the term … then I say that the active relation of signification is in the phonic expression as in its subject and in the signified thing as in its term … The passive relation of signification is in the signified thing as in its subject and in the phonic expression as in its term.[33]

The model is no more that of knowledge, but rather that of similarity or fatherhood, since the two relations are both present, and one cannot exist without the other (since they are *simul natura*). The principle behind this multiplication of relations, is the one used by other commentators for determining the number of (real) accidents: they follow the number of subjects. As Martin of Dacia says:

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33. Master Simon, *Comm. sup. Modi sign.*, ms. Brugge, Sted. Op. Bibl. 535, f. 65vb: "Ista ratio significandi actiua, sicut et quelibet alia relatio, de necessitate fundatur super duo extrema, scilicet subiectum et terminus… et ideo dico quod ratio significandi hec actiua est in uoce ut in subiecto, in re significata ut in termino… Ratio autem significandi passiua est in re significata sicut in subiecto et in uoce sicut in termino." (See Marmo 1994, 32).

The number of accidents depends on the number of subjects.[34]

This principle is used to determine how many relations exist between two similar things or between father and son,[35] and is explicitly appealed to by Master Simon in the case of signification.[36] Radulphus Brito, however, rejects this principle, and refuses to accord relevance to the distinction between *relativa per se* and *relativa per accidens*. Having revised the way to consider the relationship between knowledge and its object, he can reintroduce the analogy between *sign-signified thing* and *scientia-scibile*[37] and maintain that:

> There is only one relation which makes the phonic expression signify and the thing be signified.[38]

Transferring this parallel to the level of the *modi significandi* generates the famous thesis that *modi significandi activi* and *passivi* are *formaliter* identical: this means exactly that only one relation connects the *pars orationis* to the *modi essendi* of the signified thing and vice versa.[39]

3.2. Ockham's theory of signification

If one considers, very quickly, Ockham's theory of relations and its influence on his theory of signification, one could probably reach an explanation of some puzzling phrases at the beginning of his *Summa logicae* where he distinguishes between two senses of 'sign'. Here is his text:

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34. Martin of Dacia, *Quaest. sup. Praed.*, q. 45, 207: "Accidens capit numerum a numerositate subiecti."

35. Peter of Auvergne, *Quaest. sup. Praed.*, q. 51-52, 73; Anon. Matritensis, *Quaest. sup. Praed.*, q. 31, 162; Martin of Dacia, *Quaest. sup. Praed.*, q. 45, 207.

36. Master Simon, *Comm. sup. Modi sign.*, f. 66ra (see Marmo 1994, 33, n. 33).

37. Radulphus Brito, *Quaest. sup. Prisc. Min.*, I, q. 22, 169: "sicut se habet scientia ad scibile et intellectus ad intelligibile, sic se habet vox significans ad rem significatam... Sed est eadem relatio qua scientia refertur ad scibile et econverso et intellectus ad intelligibile et econverso. Ergo eadem est relatio per quam vox refertur ad rem significatam... et econverso."

38. Radulphus Brito, *Quaest. sup. Prisc.* Min., I, q. 22, 170: "Eadem est ratio per quam vox est significans et per quam res est significata."

39. Cf. Marmo 1994, 158.

The word 'sign' has two different senses. In one sense a sign is any-
thing which, when apprehended, brings something else to mind.
Here, a sign need not, as has been shown elsewhere, enable us to
grasp the thing signified for the first time, but only after we have some
sort of habitual knowledge of the thing.[40]

Here Ockham presents a rather traditional notion of sign, clearly
derived from Augustine's, making explicit, though, its property of
being a secondary knowledge. Almost nothing new here, then. But
then come the examples:

In this sense of 'sign' the phonic expression is a natural sign, as any
effect is a sign of its cause, and as the barrel hoop is a sign of wine in
the tavern.[41]

At a first reading one might say that Ockham is here talking about
the phonic expressions (not only human) that following Aristotle
(*De int.* 1) were classified as naturally signifying, that is as symptoms
or indexes of internal states of mind (emotions or concepts) which
are their causes.[42] But his addition of the *circulus vini* makes things
more problematic than modern commentators usually acknowl-
edge.[43] The hoop of the barrel (or the circle of branches) used as a
sign has nothing to do with indexes and the wine does not appear
to be its cause in any sense. What is Ockham here talking about? I
believe he is trying to subvert the traditional way of dealing with
signs. Let's see how and why.

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40. William of Ockham, *Summa Log.*, I.1, 8-9 (Engl. transl. in Loux 1974: 50): "scien-
dum quod signum dupliciter accipitur. Uno modo pro omni illo quod apprehensum
aliquid aliud facit in cognitionem uenire, quamuis non faciat mentem uenire in pri-
mam cognitionem eius, sicut alibi est ostensum, sed in actualem post habitualem ei-
usdem."

41. William of Ockham, *Summa Log.* I.1, 9: "Et sic uox naturaliter significat, sicut
quilibet effectus significat saltem suam causam; sicut etiam circulus significat uinum
in taberna."

42. Cf. Roger Bacon, *De signis* I.8-14, 83-86.

43. See, for instance, Tabarroni 1989, 200-206; Michon 1994: 34-43; Panaccio 2004:
47-51

First of all, as Ockham affirms in other contexts,[44] this kind of sign is inferential in nature: the sign is part of the premise of an inference that concludes an existential proposition whose subject is the thing signified (or its name).

Second, both examples might be taken as standard instances of conventional signs. This is not necessary, however, for the *vox*: notice that here he does not say what its meaning is. An answer might be found in another traditional example of a natural sign, such as the *gemitus infirmi* or the *risus*, that Ockham uses elsewhere for explaining the natural signification of concepts.[45] In this case, the *vox* works as a carrier of its meaning because it is caused by it,[46] but it is clear that a linguistic expression is not caused by any concept, being just a phonic sign which is coordinated to a concept that has the same meaning.[47] Thus a question can be raised: is Ockham here talking about linguistic expressions or not? Whatever answer one might give to this question, the example of the hoop and the wine in the cellar remains troublesome. Is he saying that the hoop signifies naturally the wine and that, *qua* sign, it is an effect of the wine? I don't think so. Maybe one has to refer the explicative clause about the causal relation only to the first example, leaving aside the second one. I would like to suggest, however, that Ockham is here saying that not only the *vox* but also the hoop signifies naturally, albeit in a completely different sense from the traditional one.

If we read again the description of the first sense of sign, the picture is maybe clearer: there is an inferential link between the sign *qua* individual thing and its meaning (again *qua* individual thing) or, rather, between our apprehensions of them, and this explains how signs of the first kind work. In my view, Ockham is here saying that the actual apprehension of such a sign produces the retrieval of a habitual knowledge of the thing signified, which, in his theory of habits, is the partial and *natural* cause of actual

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44. Such as the discussion about knowledge in William of Ockham, *Ord.* I. d. 3, or about angelic communication in *Rep.* II, q. 16.

45. William of Ockham, *Summa Log.* I.15, 53.

46. Cf. William of Ockham, *Ord.* I. d. 3, q. 9, 547.

47. Cf. William of Ockham, *Summa Log.* I.1, 7-8.

knowledge of it.[48] This is the only sense in which one could say that the hoop signifies naturally the wine: the apprehension of the hoop (in a certain position above the entrance door of a building, maybe) enables the cognitive subject to produce the apprehension of the thing signified, triggering the natural device of the passage from the habitual to actual knowledge of something. From Ockham's examples we are entitled to extend this explanation to the case of the *vox*, holding that a *vox* signifies naturally in this sense, too: the apprehension of a phonic expression makes the hearer pass from habitual to actual knowledge of the thing signified.

In my opinion, the important thing is that Ockham carefully avoids using the traditional distinction between natural signs, grounded on real relations, and arbitrary/conventional signs, based on relations of reason. There is no need here to refer to natural/real relations or to mind-dependent relations in order to explain how signs of the first kind work: representative or inferential signs are all natural because they are based on a natural mechanism such as the actualization of a habitual knowledge. The reason why I think this is the core of this text is that, as Ockham explains elsewhere, his theory of relations renders otiose the traditional distinction between mind-dependent and real relations:

> Even if 'relation of reason' is not a philosophical word (it is not found in Aristotle's philosophy, I believe), I follow common usage in holding that there is such a thing as a relation of reason and say that real relation and relation of reason must be distinguished. That is clear because, when a thing is not such as it is indicated to be by an abstract or concrete relational term without intervention of the intellect, then it is a relation of reason. But, when a thing is such as it is indicated to be by an abstract or concrete relational term without any operation of the intellect, so that this operation has no weight in this case, then it may be called a real relation.[49]

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48. Cf. William of Ockham, *Ord.* I. d. 3, q. 9, 544-545. On Ockham's theory of habits, see Fuchs 1952.

49. William of Ockham, *Quodl.* VI, q. 30, 699: "licet relatio rationis non sit vocabulum philosophicum, quia credo quod non invenitur illud vocabulum in philosophia Aristotelis, ponendo tamen propter communia dicta relationem rationis esse aliquid, dico quod relatio realis et rationis distinguuntur. Quod patet, quia quando sine ope-

An indirect confirmation of this hypothesis is provided by the fact that the description of the second type of signs contains no mention of natural relations, but only of its cognitive import and of supposition:

> In an other sense a sign is anything which brings something to mind and (1) can supposit for that thing; or (2) can be added to a sign of this sort in a proposition (e.g. syncategorematic expressions, verbs, and other parts of speech lacking a determinate signification); or (3) can be composed of things that are signs of either sort (e.g. propositions). Taking the term 'sign' in this sense the phonic expression is not the natural sign of anything.[50]

Ockham, in his classification of signs, deviates from the mainstream of the 13th century, leaving aside the traditional ground for the main subdivisions, that is the distinction between real and mind-dependent relations.[51] Since the distinction is philosophically irrelevant and is only a question of words or of different connotations, Ockham is able to give a unitary account of signification,[52] based on the acknowledged ability of both kinds of sign to bring something else to cognition,[53] whereas previous classifications of signs such as ps.-Kilwardby's, distinguished between kinds of signs on the basis of

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ratione intellectus res non est talis qualis denotatur esse per relationem vel per concretum relationis, tunc est relatio rationis. Sed quando res est talis qualis denotatur esse per relationem vel per concretum relationis sine omni operatione intellectus, ita quod operatio intellectus nihil facit ad hoc, tunc potest dici relatio realis." Cf. *Exp. in Praed.*, 13, §12, 267; *Ord.*, I. d. 30, q. 5, 385; d. 35, q. 4, 470-473.

50. William of Ockham, *Summa Log.* I.1, 9 (Engl. transl. in Loux 1974, 50-51): "Aliter accipitur signum pro illo quod aliquid facit in cognitionem uenire et natum est pro illo supponere uel tali addi in propositione, cuiusmodi sunt syncategoremata et uerba et illae partes orationis quae finitam significationem non habent, uel quod natum est componi ex talibus, cuiusmodi est oratio. Et sic accipiendo hoc uocabulum 'signum', uox nullius est signum naturale."

51. See pseudo-Kilwardby, *Comm. in Prisc. Maiorem*, 1.1.1, 3. Roger Bacon implicitly used this distinction only to further subdivide the *signa ordinata ab anima* (cf. *De signis*, I.10-11, 84-85).

52. See, for instance, William of Ockham, *Summa Log.* I.33, 95-96.

53. Cf. Panaccio 2004, 49-50.

the two kinds of relation; but since these were falling in very different categories, the concept of sign couldn't be but equivocal: all signs, for Ockham, work just in the same way, from the *circulus vini* to the statues, from the linguistic expressions to the *gemitus infirmorum*, the only exception being concepts which produce a primary instead of a secondary cognition. Furthermore, this feature does not introduce equivocity between the two senses of sign.[54]

4. Conclusions

To end, I would like to show a further interesting trait of the discussion about relations in *Categories* commentaries. As I hinted at above, various commentators make reference to or discuss the problem of divine relations. Peter of Auvergne, for instance, when coping with the question "whether relation is substance", adduces as an argument in favour of a positive answer the fact that there are relations, but no accidents, in God;[55] he replies that being-in-God is a different sort of being-in from the one relevant to creatures. Radulphus Brito discusses the same question and uses the same argument, but his answer makes use of the distinction between *relativa per se* and *per accidens*: the relation between what is caused and its cause is *per se* (just like that between *scientia* and *scibile*), while there is a relation between *causa* and *causatum* only because of the first (which means that this is a relation *per accidens*). The relations of causality and of being the first principle of everything, concludes Brito, do not really exist in God, but they are ascribed to God because of our way of understanding his reality.[56] In all the cases discussed, realists have

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54. Differently from what Michon 1994 holds.

55. Peter of Auvergne, *Quaest. sup. Praed.*, q. 48, 69; cf. Martin of Dacia, *Quaest. sup. Praed.*, q. 39, 199-200; Anon, Matritensis, *Quaest. sup. Praed.*, q. 26, 156-157; Simon of Faversham, *Quaest. sup. Praed.*, q. 40, 129-131, Radulphus Brito, *Quaest. sup. Praed.*, q. 24, f. 90v-91r.

56. Radulphus Brito, *Quaest. sup. Praed.*, q. 24, f. 91r. This question maybe reflects a different stage in a possible evolution of Brito's thought about relations as compared to the marginal addition to q. 25, see above; as a matter of fact, in his later commentary on Lombard's *Sentences*, he never mentions the distinction between relations *per se* and *per accidens*, while discussing the relationships between God and creatures at

to argue against the reality of relations in God, in order to preserve divine simplicity. Later on, John Buridan will turn the exception into the model, and a ground for arguing against the reality of relational accidents:

> I therefore propose the opposite conclusion, namely that by relative terms we do not signify any other things than those signified by absolute terms ... This conclusion applies clearly to such terms as 'cause', 'caused', 'principle' and 'what is derived from it' (*principiatum*). God is the cause and principle of every other thing and the causality by which he is cause is not a thing that is added to him and inheres in him ... Analogously, since God, who is simply supremely absolute according to his substance, is the cause of every other thing without the relation of causality added to him, without this implying any contradiction, this can apply to other [causes] too.[57]

Passing to the topic of the implications of the theories of relations for semantic theories, we should notice an important feature of the theory of sign. As was clear at least since the first half of the 13th century, the sign relation is not a simple binary relation, but involves a third item: "some intellectual interpretation" of the thing that works as sign.[58] Since medieval theories of relations envisage only binary relations holding between two elements (*extrema*), how could a triadic one be accounted for? The answer given in the 13th century was: such a relation is not a simple but a double binary relation. Richard Fishacre for instance, in his commentary on the *Sentences*, when ex-

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the beginning of II book (*Quaest. In II Sent.*, qq. 2-4, ms. Pavia, Biblioteca Universitaria, Aldini 244, ff. 37ra-va).

57. John Buridan, *Quaest. in Praed.*, q. 10, 71: "Ideo pono conclusionem oppositam talem, scilicet quod non significantur per terminos relativos res aliae ab illis, quae significantur per terminos absolutos ... Ista conclusio patet primo de istis terminis relativis 'causa' et 'causatum', 'principium' et 'principiatum'. Nam Deus est causa et principium aliorum et causalitas qua ipse est causa non est res sibi addita inhaerens ... Et similiter si Deus, qui est simpliciter absolutissimus secundum eius substantiam, est causa aliorum sine causalitate et relatione sibi addita, ita quod hoc non implicat contradictionem, et hoc bene poterit de aliis." Cf. *Summulae in Praed.*, § 3.4.1., 48-49.

58. As C.S. Peirce would have said, the sign relation is irreducibly triadic in nature (CP 8.332).

amining the case of the verb *dare*, says that there is one relation between the one who gives and the receiver, and another between the one who gives and the thing given; and he proceeds in the same way with *significare* and *signum*. Hence the debates among theologians about the priority between the two relations that make up a sign, the one between sign and signified thing, and the one between sign and interpreter (or user). As Irène Rosier-Catach has explained in several works,[59] Bonaventure took one side and Bacon the opposite. After them, however, the second relation almost faded away. Instead, as we can see in both Brito and Ockham, the grammarians' and the logicians' point of view prevails, the view, that is, that assigns to language some regular and objective properties, independent of its users; almost no room was left for a pragmatic approach to language, which would take into account the relation between signs or language and their users or interpreters in accordance with Charles Morris' definition of pragmatics.

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59. Rosier-Catach 1994, 2004.

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