Three Myths of Intentionality vs. Some Medieval Philosophers¹ Gyula Klima (Fordham University, New York, NY):

Introduction: the "three myths"

After Brentano, intentionality is often characterized as "the mark of the mental". In Brentano's view, intentionality "is characteristic exclusively of mental phenomena. No physical phenomenon manifests anything like it". ² After Meinong, it is also generally believed that intentionality, as this characteristic mental phenomenon, concerns a specific type of objects, namely, *intentional objects*, having intentional inexistence, as opposed to ordinary physical objects, having real existence. Thus, intentional objects are supposed to constitute a mysterious ontological realm, the dwelling place of the objects of dreams and fiction, and other "weird entities", even inconsistent objects, such as round squares. Finally, it is also generally held that intentionality somehow defies logic, as the well-known phenomena of the breakdown of the substitutivity of identicals, the failure of existential generalization, and generally the strange behavior of quantification in intentional contexts testify. In this paper, I will refer to these positions as the psychological, ontological, and logical "myths of intentionality", respectively. The reason is that although this important modern notion of intentionality and the positions involving it are supposed to have come from medieval philosophy, medieval philosophers would be starkly opposed to them. On the basis of the relevant doctrines of some medieval philosophers, especially, Aquinas and Buridan, this paper is going to argue that the three positions on intentionality described above are in fact just three modern myths.

The psychological myth

Intentionality is often described as "aboutness", the property of being about something. And it is often claimed that no physical entity exhibits this property. It is only mental phenomena that have this curious characteristic; hence we have *Brentano's thesis* that intentionality, the property of being about something, is "the mark of the mental" and, as such, it is this property that marks out the subject matter of psychology.

However, despite the fact that Brentano derived his terminology from the scholastic philosophers' discussions of concepts, which they called *intentions*, and their related discussions of *intentional being*, or *esse intentionale*, they would certainly disagree with Brentano's thesis about intentionality, and with good reason. Although medieval philosophers would perhaps agree with the characterization that intentionality is "aboutness", they would nevertheless deny that this property is exhibited only by mental phenomena.³

Thus, for instance, when Aquinas tells us that colors are in the senses in *esse intentionale* as opposed to *esse reale*, the real being they have in the wall,⁴ he seems to be in perfect agreement with

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² F. Brentano, *Psychology from an Empirical Standpoint* (London: Routledge, 1995; originally published 1874) 89.

³ But then, of course, we shall also have to clarify exactly where and on what grounds they would draw the "demarcation line" between mental and non-mental phenomena, an issue that I'll return to in a moment.

⁴ Cf. "sensus recipit formam sine materia, quia alterius modi esse habet forma in sensu, et in re sensibili. Nam in re sensibili habet esse naturale, in sensu autem habet esse intentionale et spirituale." *Sentencia De anima*, lib. 2, l. 24, n. 3.

Brentano's thesis,⁵ but when he says that the same colors also have *esse intentionale* in the air, the medium between the perceiver and the perceived thing, then we should begin to suspect that by intentionality he means something altogether different from the notion involved in Brentano's thesis.⁶

To cut a long story short, for Aquinas, intentionality or aboutness is the property of any form of information carried by anything. If we look at his remarks about *esse intentionale* in this way, all will make good sense. After all, it is not only my perceptions and my thoughts that carry information about my environment, but also the medium carrying this information to my senses. Furthermore, even if I never receive any of this information, the information is there, and *qua* information it certainly *is about* the thing that produces it, when the information is encoded by a natural effect of the thing. This is how, for example, the tracks, the scent, or the sounds of an animal, or the light reflected from its body carry information about the animal whether these are actually perceived by another, say, its predator, or not. Or, to use Aristotle's famous example, this is how the impression of a signet ring in a piece of wax encodes information about the shape of the ring itself.

Indeed, the impression in the wax in a way is nothing but that shape, although, of course not numerically the same shape that shapes the matter of the ring itself, but the shape shaping the wax taking on the shape of the ring. This is what Aquinas would describe by saying that the shape of the ring exists in the wax in *esse intentionale*, insofar as the shape now shaping the wax encodes information *about* the shape of the ring, thus naturally exhibiting the property of aboutness, that is, intentionality. But then, it is within this general hylomorphist framework, distinguishing the *esse reale* and *esse intentionale* of the same form, once informing the matter of a thing giving its real character, once informing another thing without the matter of the first thereby carrying information *about* the first, that Aquinas would interpret the more specific forms of *cognitive intentionality*, that is, the reception of information in cognitive subjects.

Therefore, what fundamentally distinguishes *cognitive intentionality* for Aquinas from non-cognitive physical phenomena is not that physical phenomena lack intentionality, but rather that cognitive intentionality is exhibited by cognitive subjects, which besides merely receiving information are capable of actively processing and utilizing it in their vital operations. Thus, in more advanced animals, the mere passive receptivity of the external senses is aided by the integrating activity of the common sense, allowing the animal not merely *sense*, but also *perceive* sensible objects, as persisting through change. Perception is further assisted by sensory memory, allowing besides mere *cognition* the *re-cognition* of objects perceived in the past. Furthermore, imagination can further process information recorded in memory, enabling the animal to *model* its environment in ways it could be, thereby providing the animal with some sort of foresight. This foresight, assisted by the so-called *vis aestimativa* that instinctively evaluates the situation for benefit or harm, enables the animal to seek out what is beneficial and to avoid harm. On top of all these, in rational animals, that is, humans, the

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⁵ Granting, for the time being, the modern (post-Cartesian) usage that would classify even sensory operations as "mental". Aquinas would reject this usage, because he would regard only intellectual or voluntary operations as properly mental, namely, the proper operations of a soul having intellect and will, properly called a mind, *mens*, in Latin.

⁶ "Nam ipse Angelus est forma subsistens in esse naturali, non autem species eius quae est in intellectu alterius Angeli, sed habet ibi esse intelligibile tantum. Sicut etiam et forma coloris in pariete habet esse naturale, in medio autem deferente habet esse intentionale tantum." *Summa Theologiae* I, q. 56 a. 2 ad 3; "medium recipiat alio modo speciem coloris quam sit in corpore colorato ... Actus enim sunt in susceptivis secundum modum ipsorum: et ideo color est quidem in corpore colorato sicut qualitas completa in suo esse naturali; in medio autem incompleta secundum quoddam esse intentionale; alioquin non posset secundum idem medium videri album et nigrum." *Sentencia De sensu*, tract. 1, 1. 5 n. 4.

intellect further processes the sensory information amassed in experience in the form of singular representations of singulars, the so-called *phantasms*, from which it abstracts the *intelligible species*, the universal representations of singulars of various natural kinds. The intelligible species, stored in intellectual memory, then enable the intellect to form universal concepts entering in judgments, the building blocks of both inductive and deductive reasoning, completing our cognitive mental operations. For "mental phenomena" for medieval philosophers are strictly speaking only *the proper operations of a mind (mens)*, i.e., a rational soul having the cognitive faculty of intellect and the practical faculty of will.

At any rate, this would be a brief sketch of the main cognitive operations of cognitive subjects in the medieval Aristotelian tradition. What is important in this sketch from our point of view is that all the cognitive operations described here are nothing but different ways of receiving, recording, storing, and further processing information *about* physical reality. But then it should also be clear that receiving and storing information *about* physical reality is not the privilege of cognitive subjects, and so if cognitive subjects just further process this kind of information, then the intentionality of all information is not the privilege of cognitive subjects, or generally of their *cognitive*, or specifically of their *mental*, psychological states. But this is all we need for dispelling the first myth.

The ontological myth

However, all this may not be enough to do away with the second myth, namely, the ontological myth about intentional objects. For even if perhaps there is nothing mysterious about the impression of the ring in the wax carrying information *about* the ring or sense perceptions carrying information *about* sensible objects, there apparently *is* something mysterious about objects of imagination and thought: after all, these objects, such as centaurs, golden mountains or even round squares are *not* objects existing in physical reality, but they are undeniably the objects of our imagination and thought; so what are they, where, or how do they exist? Aren't at least *these* objects the inhabitants of a distinct ontological realm?

What makes these questions appear plausible is that we can talk about non-existent objects of thought and imagination in pretty much the same way as we do about ordinary objects in our sensible environment. So, we refer to these objects and quantify over them just as we do when we talk about ordinary objects. But then, it seems that by the very acts of reference and quantification we have an "ontological commitment" to these objects. After all, "to be is to be the value of a bound variable", isn't it? But these objects of our reference and quantification are non-existent, so apparently they have to be there somehow, without actually existing. Or so a Meinongian an argument might go.

There are usually two types of reaction to this line of reasoning. One is the Meinongian *reductionist* type, giving a reduced ontological status to intentional objects, in a different mode of being, or the Quinean-Russellian *eliminativist* type, trying to explain away what is taken to be merely apparent reference to or quantification over non-existent objects in terms of plausible paraphrases involving only reference to or quantification over ordinary objects. As I have argued at length elsewhere, the 14th-century nominalist philosopher, John Buridan, offered an ingenious third alternative "between" these *reductionist* and *eliminativist* strategies of handling reference to non-existents.⁷

Without going into the intricacies of Buridan's theory of reference in intensional contexts, or his theory of *ampliation of supposition*, one must note in the first place that on his view reference (*suppositio*), as opposed to meaning (*significatio*) is context-dependent. In different contexts, the

⁷ Klima, G. *John Buridan*, Great Medieval Thinkers, Oxford University Press, 2009, c. 7.

same term with the same meaning, that is, without equivocation, can be used to stand for different things. For instance, if I say 'Man is a mammal' I intend to refer by the subject term to human beings, however, if I say "'Man' is a noun', the subject of this sentence is meant to stand for a linguistic item, which, according to the meaning it has in my first sentence, is a noun. Furthermore, suppose I say in my graduate class, 'All students in this room are graduate students'. In this case I want to use the subject term of this sentence to refer to the students presently sitting in the room. However, if I say in the same class 'Just an hour ago, some students in this room were undergraduates', then I am referring either to the students who presently are in the room, or to the students who were there an hour ago, in my undergraduate class. Thus, the reference of the subject of this sentence 'students in this room' is extended, ampliated, to include not only those students who are presently in the class, but also those who were there an hour ago in the past. Indeed, this ampliated subject would refer to the students who were there in the past, even if in the meantime (God forbid!) they ceased to exist. This is precisely how we can make reference to objects that existed in the past, but no longer do, as in the sentence 'Millions of years ago, dinosaurs roamed the earth'. But the students in my undergraduate class or the dinosaurs this sentence is about are certainly not mysterious, "intentional objects". Thus, in these sentences I quantify over non-existent, but entirely non-mysterious, past physical objects. To be sure they are no longer physical objects; however, they were. But then, one might ask what are they now? Well, the simple answer is: nothing. It is only an existing thing that is something, whatever does not exist is nothing, since no thing is something non-existent. We are just able to make reference to these past objects, because we have information somehow recorded and further processed about them that enables us to identify them and talk about them. And since we can think about such objects in an abstract manner, abstracting from any time, we can talk not only about past things of this kind, but also about future or merely possible things of the same kind as well. As Buridan wrote:

We should note that we can think of things without any difference of time and think of past or future things as well as present ones. And for this reason we can also impose words to signify without any difference of time. For this is the way names signify. Therefore, by the specific concept of 'man' I conceive indifferently all men, present, past and future. And by the name 'man' all [men] are signified indifferently, present, past and future [ones alike]. So we truly say that every man who was was an animal, and every man who will be will be an animal. And for this reason it follows that the [verbs] 'think/understand' ['intelligere'], 'know', 'mean/signify' ['significare'] and the like, and the participles deriving from them, ampliate the terms with which they are construed to refer indifferently to present, past and future and possible [things] which perhaps neither are, nor will be, nor ever were. Therefore, even if no rose exists, I think of a rose, not one that is, but one which was, or will be, or can be. And then, when it is said: the name 'rose' signifies something, I concede this. And when you say: that [thing] is not, I concede that; but it was. If, then, you conclude: therefore, something is nothing, I deny the consequence, for in the major premise the term 'something' was ampliated to past and future [things], and in the conclusion it is restricted to present ones.⁸

⁸ Johannes Buridanus: *Questiones Longe super Librum Perihermeneias*, ed. Ria van der Lecq, Utrecht, 1983, pp.12-14. Cf.: "All verbs, even in the present tense, which of their very nature can concern future, past and possible things as well as present ones such as 'think', 'know', 'mean' and the like ampliate their terms to all times, future, past and present. And what accounts for this is that a thing can be thought of without any difference of time, namely, abstracted from any place and time. And so, when a thing is thought of in this way, then a thing which was, or will be, or can be may be thought of as well as a thing which [actually] is. Therefore, if I have the common concept from which we take this name 'man', then I can think indifferently of all men, past, present and future. And this is why these verbs can concern past or future things as well as present ones." Albert of Saxony: *Perutilis Logica*, Georg Olms Verlag, Hildesheim-New York, 1974, Tr. 2, c. 10, 8a regula. For an earlier example of the same explanation of ampliation see the selection from the *Logica Lamberti* in N. Kretzmann - E. Stump (eds.): *The Cambridge*

But what about *imaginary* objects or *mere* objects of thought? They are not recalled from the past, nor will they ever exist in the future, nor are they things we experience, but think of in an abstract manner. They just appear to be *sui generis*. So, *what* are they?

Again, since such things do not exist, they *are* nothing; so it is just as futile to inquire into the nature of centaurs, etc. as it is to try to draw a round square. Therefore, when we are thinking of things that do not exist, we are not exploring a mysterious realm of non-beings, say, the realm of merely possible or fictitious beings, for, *pace* David Lewis, there is just no such a realm to be explored. A merely possible being or a fictitious entity is not just a special kind of entity; indeed, not any more than a fake diamond is a special kind of diamond or forged money is a special kind of money. Just as a fake diamond is not something that is a diamond and is fake and forged money is not something that is both money and forged, so a fictitious entity is not something that is both an entity and is fictitious. And just as a fake diamond is no diamond at all, and forged money is no money at all, so a fictitious entity is not an entity at all.

But then what do we have in mind when we are thinking about objects that do not exist? Well, some of them are things that existed, but no longer exist, others are things that will exist, but not yet exist, and still others are things that could exist, but actually don't. But what is the nature of these things? Well, nothing, just as these things are nothing, i.e., none of the things there are. In short, Buridan's metaphysical point is that if you want to do metaphysics, then you should deal with *being qua being*, and not with *non-being qua being*, for then, assuming a contradiction, you might just draw any silly conclusion. So much, then, for the second myth.

The logical myth

But then, if we assume Buridan's stance toward the issue of "quantifying over non-existents", some puzzles of the third myth are "automatically" solved. For then *particular* quantification in *ampliative* contexts need not be construed as *existential* quantification at all. When I say 'Something that does not exist is thought of', this need not be construed as saying that that there exists something that does not exist and is thought of, for of course this would be contradictory. However, if this sentence is construed as saying that some past, future or possible object that does not exist is thought of, then the contradiction vanishes. To be sure, one might still have qualms about "ontological commitment" by quantifying over mere *possibilia*, but we just dealt with that issue. Quantification does not involve any *ontological* commitment. It does involve commitment to objects of our thought, but those objects do not form a special metaphysical realm, for, if they do not exist, then they are just nothing.

But if we take a closer look at how we are able even to think of such "nonentities", then, with the help of Buridan's doctrine of *appellatio rationis*, other puzzles of intentional contexts can also receive plausible, non-mysterious solutions.

When we think of things, we can do so by means of our concepts, encoding highly processed abstract information we gained in experience, and entering into combinations with other concepts in the later stages of our intellectual operations. Thus, when we are thinking of humans or horses we are using the concepts of humans and horses abstracted from our experiences of

these things. And when we are thinking of centaurs, we are combining our concepts of humans and horses to cook up an object of our thought and imagination that is actually nothing, but if it existed would be like a certain combination of a human and a horse. In fact, such combinations take place already in the imagination alone, in a process that is no more mysterious than using your Adobe Photoshop to create images you have never seen before. But the important thing, in any case, is that when we are thinking about any object of our thought, whether real, or made up either by our imagination or by our intellect, our thought always concerns these objects *through* our concepts: after all, we think of them by means of actually forming their concepts. And this is indeed something characteristic of our mental acts, which is precisely the reason why, in intentional contexts, the terms expressing these concepts obliquely refer to these concepts, or in Buridan's terminology, *appellate these concepts*. As Buridan put it:

They appellate these concepts in this way because we think of things by means of those concepts, but it is not in this way, i.e., not by means of a concept, that fire heats water, or that a stone hits the ground.⁹

Mental acts, such as thinking, wanting, knowing, believing, doubting, meaning, referring, etc., always concern their objects by means of the concepts (*rationes*) whereby we conceive of them. This is why in the context of verbs expressing these mental acts, the grammatical objects of these verbs *appellate*, that is, obliquely refer to these concepts. But then it is no wonder that two terms expressing different concepts, even if they refer to the same thing in the same intentional context, cannot be replaced *salva veritate* with each other, that is to say, in that context, substitutivity of identicals breaks down. Thus, it is not surprising that Oedipus could want to marry Iocasta, even if he did not want to marry his mother, despite the fact that Iocasta *was* her mother; for he knew Iocasta *qua* Iocasta, but he did not know her *qua* his mother. By contrast, he could not have hit Iocasta without hitting his mother, although of course he would not have *known* that he had hit his mother.

One could go on with illustrations of this sort, showing how the medieval conceptual framework, and in particular, Buridan's logic, provides plausible solutions to all sorts of logical puzzles of intentionality discussed in the contemporary analytic literature. But, instead, now it is time for some general concluding remarks.

Conclusion: medieval cognitive psychology as information science

The foregoing sketch of how some medieval philosophers would handle what I called the three "modern myths of intentionality" was meant to illustrate largely two points. In the first place, many apparently obscure medieval doctrines concerning intentionality will make perfect sense once we interpret them as functionalist theories of receiving and processing information by both cognitive and non-cognitive subjects, mostly disregarding the particular physical mechanisms that realize these operations, pretty much like *we* theorize about computing functions disregarding their hardware implementation. In the second place, the foregoing discussion was meant to show that gaining an understanding of medieval theories in this way has not only a historical, but also a purely theoretical payoff: a better understanding of the phenomenon of intentionality itself.

6

⁹ SD 4.3.8.4: "Sic autem appellant illos conceptus quia intelligimus res secundum illos conceptus; non sic tamen, per conceptum, ignis calefacit aquam vel lapis tangit terram."