VINCENT FERRER ON THE LOGICIAN AS *ARTIFEX INTELLECTUALIS*[1]

In this paper I wish to examine St. Vincent Ferrer's claim that the logician is an *artifex intellectualis*.[2] The purpose of this examination is to reveal what St. Vincent takes to be the subject matter of logic and the method of the logician in investigating this subject matter. I shall not attempt to decide whether Ferrer's doctrines about the logician's task and subject matter are true; rather I shall try to state and explain his doctrines as clearly as possible in the belief that a clear understanding of his conception of the logician's task will be helpful, not only in understanding his own work, but also in understanding the nature of late mediaeval logic. In order to forestall possible misunderstandings of Ferrer's ideas about the nature of logic, I shall begin this discussion by arguing that he did not regard the primary subject matter of logic as either words or thought processes. In calling the logician an *artifex intellectualis*, he meant to suggest that the subject matter of logic is something he calls an *intellectus* and that the logician should act as an *artifex* in investigating this subject matter. The bulk of this paper will, then, consist of an explanation of what he thought an *intellectus* is, and how he thought the logician should work with this sort of subject matter.

A student of modern philosophy may very well see a number of interesting parallels between Ferrer's understanding of his task and the ideas of some modern logicians about philosophical method. I shall

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[1] I wish to thank Prof. Harry M. Bracken for his helpful criticism of an earlier draft of this paper.

[2] St. Vincent is comparatively unknown as a logician. Nevertheless, his logical works and particularly his doctrines that seem most advanced for his own time — his attempt to rid the subject of some universal affirmative propositions of existential import and his distinction between the name of an individual symbol and the name of a class of equiform symbols — have not gone entirely unnoticed by modern scholars. See Ivo Thomas, "Saint Vincent Ferrer's De Suppositionibus," *Dominican Studies*, V (1952), 88—102 and I. M. Bocheński, *A History of Formal Logic*, trans. and ed., Ivo Thomas (Notre Dame, 1961), pp. 166, 221—223. There is, however, a twentieth century edition of his works: *Oeuvres de Saint Vincent Ferrier*, ed., Fages (Paris, 1909).

allow the reader to work out these comparisons for himself, but I cannot resist at least suggesting, in conclusion, a comparison between some early comments of Wittgenstein's about logical form and the doctrines explicated in this paper. This suggestion is not meant to prove that nothing is really new under the sun, nor should I wish to push comparisons of this sort too far for fear of misleading rather than helping the reader in understanding the thought of the philosophers concerned.

Two logical treatises by St. Vincent Ferrer have been edited in the twentieth century. They are called *De suppositionibus dialecticis* and *De unitate universalis*. This paper will be based entirely upon *De suppositionibus*, which is much the longer of these and which aims at a systematic study of a large segment of the logic that was known in the fourteenth century.

I

I shall begin my task, then, by showing what St. Vincent thought logic is not about. From the first chapter of his work Ferrer makes it clear that he does not regard logic as an *ars sermocinalis*. His insistence that logic should not be conceived to be a study of language for its own sake, comes out more explicitly in a later chapter (c. V), where he takes some pains to distinguish the tasks of the logician and the grammarian. He writes that the logician ought not to care too much about verbal expressions because this is primarily the concern of the grammarian, and he refers his reader to the work of Petrus Helias, the twelfth century speculative grammarian, who was properly concerned about these matters. And, of course, one must remember that St. Vincent is using *grammaticus* in its wider mediaeval sense; the logician is neither philologist nor literary critic. The science of grammar has to do with language and words (*scientia grammaticae componitur ad linguam et vocabula*: *Oeuvres* . . . I, p. 53. All references to Ferrer in this paper are to the Fages' edition). This, however, is not the primary concern of the logician. Indeed, Ferrer cites the Latin Aristotle in the *Topics* as saying that one who responds to a question by referring to words is *ridiculosus*. The logician does, however, have something to do with language; in fact, at one point St. Vincent warns the logician that great care must be taken (*magna diligentia adhibenda*) about it (p. 48). The point of this warning will be taken up later in this essay in the examination of Ferrer's ideas about logical method; for now it must be emphasized that the logician has no concern with language for its own sake.

Another reason why the logician should not take an inordinate interest in words, is clear from Ferrer's discussion of the definitions of

suppositio in his first chapter. He shows here that he would be opposed to any anthropomorphic view of words; words do not have meanings in and of themselves. They are used in acts of the mind, and only as they are so used do they have meanings. Thus the mind uses a word in the context of a proposition to stand for something, and this act of standing for something constitutes the property of *suppositio*. Ferrer, therefore, maintains that the properties *suppositio*, *subjectio*, and *significatio* pertain to words only as they are used by the intellect. (*Primo enim vox accipitur ab intellectu ad aliud determinata designandum, et sic competit sibi significatio*. p. 7).

Thus we see that language is not, in Ferrer's view, the proper subject of logic. In the discussion just cited, in which he distinguishes between the concerns of the grammarian and the logician, and maintains that it is the business of the grammarian and not the logician to investigate words and language, Ferrer contends that the logician is an *artifex intellectualis* whose entire attention is directed towards the primary intent of acts and concepts of the intellect. The logician ought, therefore, to care, not about the words of a proposition, but *de intellectu propositionis*. (*Verecundum autem est dialectico nimis curare de expressione sermonis, de qua principaliter intendit grammaticus . . . sed magis debet curare de intellectu propositionis, cum sit artifex intellectualis*. p. 53).

Intellectus is clearly the crucial word here. Before proceeding to an explanation of what St. Vincent means by *intellectus*, however, I must first clear up a possibly serious misunderstanding. Ferrer does not think the logician should study the intellect and its processes. It is obvious, however, that he does use *intellectus* in two quite different senses.[3] On the one hand, *intellectus* is indeed one of the faculties of the mind, and near the end of his treatise he calls the *intellectus* a *potentia animae* and contrasts its *intentiones* with those of other faculties of the mind (p. 80). One might be disappointed, however, to find very little discussion in this treatise about the ways in which this faculty of the mind differs from other faculties. The reason is, I think, obvious. It is another sense of *intellectus*, the sense in which it is a property of propositions, that really interests St. Vincent, and in his insistence that the consideration of the logician ought to be directed towards the intent of acts of the intellect, *intenta*, not *intellectus*, is surely the important word. What Ferrer means by *intenta* remains to be seen, but it is clear enough already

[3] This usage is not unusual in the fourteenth century. Ockham, for example, uses *intellectus* in two comparable senses. See Léon Baudry, *Lexique philosophique de Guillaume d'Ockham* (Paris, 1958), p. 129.

that the *intellectus* that is the subject matter of logic, must be a property of propositions and must be related in some way to what are called the *intenta* of acts of the intellect. This means, however, that one must be very careful to distinguish *intellectus*, meaning a property of propositions, from *intellectus*, meaning a faculty of the mind. And if this distinction is maintained, one certainly cannot charge that Ferrer's logic was psychologistic in the sense in which the so called "classical" logic is widely thought to have been. Whether or not this common charge is always justified cannot be debated here, but there is certainly an obvious difference between the way Ferrer approaches his subject and Isaac Watt's statement of intent in the eighteenth century. Watts writes, "Now the *Art of Logick* is composed of those Observations and Rules, which Men have made about these four Operations of the Mind, *Perception, Judgment, Reasoning* and *Disposition*, in order to assist and improve them."[4] There is no language like this in *De suppositionibus*, nor does Ferrer ever suggest, with the author of the *Logique de Port-Royal*, that logic might be "L'Art de penser." Ferrer never supposed that the logician should observe and describe the operations of the mind. As I just suggested, the sense of *intellectus* that interests him is not the sense in which it means a faculty of the mind, but rather the sense in which it means a property of a proposition. The *intellectus* that is of concern to the logician cannot, therefore, be identified with any mental act nor, indeed, with a faculty of the mind. It may be the content of a mental act, but, true to his understanding of the distinction between logic and psychology, St. Vincent does not include any explicit discussion in this treatise of the way the mind operates in using *intenta* or *intellectus*. He is willing to leave descriptions of the mind and its operations to psychology.

II

So far I have maintained that Ferrer did not think the logician should be primarily concerned about either language or the intellect and its faculties, but about the *intellectus* that is a property of propositions. In explaining what St. Vincent means by this sense of *intellectus*, I shall first suggest how the *intellectus* of a proposition is related to the *intenta* of acts of the intellect. From an understanding of this relation we can turn to a consideration of what Ferrer thinks logic has to do with thought and language. This consideration will help us to fill out our understanding

[4] Isaac Watts, *Logick: or the Right Use of Reason in the Inquiry After Truth* (London, 1775), p. 4.

of his idea of what the proper subject matter of logic should be and will lead to an examination of his view of logical method.

When St. Vincent writes that the primary concern of the logician should be the *intenta* of acts of the intellect, he means that the logician should investigate what is intended by the mental act whereby somebody frames a proposition that he expresses in written or spoken words. As we shall see from his distinction between the *intellectus* of a proposition and the words that express the proposition, St. Vincent thinks language expresses something that the mind intends. Every meaningful proposition has a sense or an *intellectus* that is intended by one who expresses the proposition. This *intellectus* may be considered the content of a mental act by which someone intends something and expresses what he intends in language, but it is independent of any particular acts of mind and cannot be identified with them. Indeed, two persons who assent to the truth of the same proposition might be said to share a common intention, which they might express in the language of the proposition. One is tempted to say that Ferrer's *intellectus* is rather like what some modern logicians have called the sense of sentences.[5]

Now if the *intellectus* of a proposition is not an act of mind but is something that might be the content of an act of mind, and is itself the sense or intention of a proposition that would be expressed by someone who performs the proper act of intending, what does the logician have to do with thought?

I believe one might express St. Vincent's position in the following way. The *intellectus*, which is the content of thought as it is expressed in propositions, shares a kind of form with the world. This is simply presupposed. If this presupposition were questioned, Ferrer would defend it on the grounds that, without such a presupposition, one could make no sense of the fact that we can have rational discourse about the world. The form that thought shares with the world is what is of primary concern to the logician. The logician is interested in the *intellectus* of propositions because their structures correspond with some general features of the structure of the world.

That he thinks such a correspondence exists is clear from Ferrer's *De suppositionibus*. Along with the other logicians of his time, he undoubtedly assumed that logic should teach a man to speak truly (*vere loqui*). Thus he tells us that the laws for conversion, the rules for *consequentiae*, and, indeed, the rules for all logical operations are determined

[5] As we shall see, Ferrer himself uses the term *sensus* to mean what is intended by a proposition.

in accordance with truth conditions (*secundum uniuscujusque causam veritatis*, p. 52). The world has a general structure such that descriptions of it either correspond with it or they do not; they are either true or false. And this must be reflected in the operations of logic. They must be, as it were, truth-functional. The statement of this principle comes within the context of a discussion of whether or not one can validly infer the converse of an exclusive proposition. What Ferrer is concerned about can be illustrated in the following way. From "Only man is vile" one can infer "All vile things are men," but one cannot infer "All men are vile things" or "Only vile things are men." To prohibit such inferences he gives a rule based fundamentally upon a truth-value analysis of exclusive propositions.[6] But this truth-value analysis is not a matter of convention, nor is it proposed *ad hoc*. Here the logician is no *artifex*; rather he discovers the proper analysis. Ferrer supports his rule and the analysis upon which it is based by giving some examples, the point of which is, that there is a correspondence between the intent of propositions using syncategorematic terms like *solus* and something about the world, so that some combinations of these propositions would allow one to infer a false proposition from a true one. A rule must then be stated to prohibit such inferences. In keeping with the formal point of view of fourteenth-century logic, St. Vincent is interested only in the logical structure of propositions, in this case in the operations performed with certain syncategorematic terms, but the significance of his appeal to examples using propositions whose truth values would be known to all of his readers, is that this structure itself corresponds to something about the world. And the structure of propositions is the structure of thought; it is the structure of the intent expressed in the words that make up the spoken or written proposition.

Ferrer's belief that there is a correspondence between the logical structure of thought and the structure of the world is also apparent in his opening discussion of the problem of universals in *De suppositionibus*. Unless one understands Ferrer's conception of logic, one might easily think this introduction a rather jarring digression and an irrelevant way to begin the task. He begins by stating that since, according to Aristotle, categorical propositions are principally distinguished according to the common or universal term, some logicians investigate the suppositions of terms in categorical propositions in accordance with different opinions

[6] Ferrer's analysis is actually rather more complicated than my brief summary of his problem might suggest. It involves analyzing exclusive propositions in terms of what the mediaevals called "exponibles." Cf. I. Thomas, *op. cit.*, p. 98.

about universals. He then proceeds to outline the "three famous opinions" about universals, giving a concise and coherent presentation of Aquinas' view, which he accepts, but doing scant justice to the "extreme" views, those of Ockham and a Galtirus most likely Walter Burleigh (c. 1274—c. 1344). The reason for this metaphysical beginning to his treatise is certainly not that St. Vincent thinks logic is metaphysics or that he has the two confused. Rather it is that the very general structure of the world does have a bearing upon logic in that the structure of the thought that is expressed in language, which is the concern of the logician, must correspond to the way things are in the world. If this were not the case, rational thought about the world and its expression in language would be impossible. And that such a hopeless situation could exist, Ferrer would have thought patently absurd.

Clearly, then, Ferrer thought there is a correspondence between the structure of thought, that is, the structure of the *intellectus* or intent of propositions, and the structure of the world, so that certain patterns of *intellectus* can mirror patterns in the events of the world in the expression of truths about the world. Now I wish to examine more closely Ferrer's view of the relations between the *intellectus* of a proposition and the words by means of which the proposition is expressed. This examination will then lead to a more detailed consideration of the logician's method.

One of the most precise formulations of the relation between the *intellectus* of a proposition and the words of the proposition to be found in *De suppositionibus*, occurs in a context that is most baffling to the English reader. The point of the problem in question depends upon the existence of the use in Latin, unlike English, of the infinitive-accusative construction in oratio obliqua clauses; furthermore, this construction was dropping out of use in the fourteenth century; thus Ferrer himself regularly expresses oratio obliqua by *dico quod* followed by an indicative clause. Ferrer's problem here concerns the sort of *suppositio* to give to the subject of *Hominem esse animal est oratio indicativa*. Ought the subject to have material supposition, which we might show by using some quoting device to demonstrate that *hominem esse animal* is being used as a name for the proposition, or, in the contemporary sense, is being mentioned rather than used? The Latin construction has produced a problem for Ferrer that cannot be adequately paralleled in English because *hominem esse animal* is certainly not an indicative utterance, and hence the statement in question, on this hypothesis, is false; but it seems a bit odd to the Latinist to say

that the statement is simply false. To follow the ins and outs of Ferrer's solution to his problem would take us far from the topic of this paper; what is more to our point is that in his discussion he first writes that some proposition, *homo est animal*, that is an indicative utterance shows (*indicat*) *hominem esse animal*; that is, it shows the state of affairs that man is an animal (p. 71). He then goes on in this fashion, "I do not say that this proposition *homo est animal* says that man is an animal, but I do say that it shows what it is that the *intellectus* says" (p. 72). The proposition is, therefore, a unit of language made up of written or spoken words, but in the strict sense it does not say something about the world; it shows something; what is shows is said by the *intellectus* of the proposition.

Thus the *intellectus*, which shares a kind of logical form with the world, makes pronouncements about the world. The proposition, which is a language unit, shows what its *intellectus* says. Again one sees Ferrer's determination to avoid any anthropomorphic view of language. Words in themselves mean nothing and express nothing about the world. They have significance only as they are used to express thought about the world. This of course does not mean that propositions are really about thought rather than the world. Early in his work St. Vincent anticipates an objection like this by contending that predicates are true of their subjects *secundum esse* that they have in mental acts, not *pro esse* in the mind (p. 16). What this distinction means is clear in the light of the discussion that has just been reviewed. The *intellectus* of a proposition shares something with the world, and hence it can say something about the world. The proposition, as a unit of language, does not say something about the *intellectus* but shows what the *intellectus* says.

III

In the light of this distinction between the proposition and the *intellectus* of the proposition, one can see what Ferrer means by admonishing the logician to take great care about words. I have already shown how the logician is directed to distinguish the *intellectus* of a proposition from its verbal expression, and to answer any question about the logical form of a proposition in terms of its *intellectus*. I must now consider in detail what this directive means in view of both Ferrer's distinction between the *intellectus* and the words of propositions, and his own practice in this treatise. This examination will reveal the sense in which the logician is to be an *artifex*.

By calling the logician an *artifex* St. Vincent means to emphasize that the logician is not a passive observer. He does not simply describe something; he does not even simply describe the way an *intellectus* of a proposition is to be contrasted with its verbal expression; he does not leave things the way they are. The logician ought to be a kind of reconstructionist. One might be tempted to compare Ferrer's task to that of some modern philosophic reconstructionists. And although he is not at all explicit about this within this rather brief treatise, I think it is not unfair to regard his *intellectus* as together making up a kind of ideal language, which by virtue of the fact that it shares something with the world is naturally a more adequate tool for describing the world, than is the language through which these *intellectus* are expressed.[7] Clarity can be attained, therefore, by fixing one's attention upon the *intellectus* and by analyzing puzzling propositions in terms of their *intellectus*. But I do not wish to push the parallel with modern reconstructionism too far; a correct understanding of this treatise might well be jeopardized by any misleading claims that its thought is quite modern (or, at least, only slightly old-fashioned). What must be emphasized is that, in Ferrer's mind, the logician plays an active rather than a passive role. To borrow a comparison from Mr. P. T. Geach,[8] the logician, like the cartographer, does not map by simple observation but by triangulation. He brings some formal tools to bear upon his subject. I shall now turn to some samples of logical triangulation from *De suppositionibus*.

Ferrer's treatise abounds with examples of reconstruction of logically troublesome propositions in terms of their *intellectus*; he not only talks about the task of the logician; he performs it. Here I shall consider three representative cases of his procedure, cases which are not only interesting in their own right in contributing to one's understanding of his task, but are also cases in which he is reasonably self-conscious and explicit about his own method.

The first example re-emphasizes what has been said about Ferrer's attitude towards any anthropomorphic treatment of words. One of the rules for simple supposition specifies that in a proposition whose subject has simple supposition that subject must be a singular term

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[7] I think Ockham's mental language functions in much the same way although his mental proposition does differ from Ferrer's *intellectus*. For example, in Ockham's mature view he seemed to think the mental proposition is simply a mental act.

[8] P. T. Geach, *Reference and Generality* (Ithaca, 1962), p. x.

(e. g., "man" in "Man is a species"). Certain objections are considered in which cases are produced that seem to throw some doubt upon the consistency of this rule with his other rules for simple supposition. Against these objections Ferrer then produces the following general argument. "When, therefore, it was said in demonstrating how the second rule was given that every subject with simple supposition is a singular term, this ought not to be understood as taking the subject or its import in itself and absolutely, but it is understood as a subject performing its function of supposition (*sic supponens*)" (p. 63). One problem to which this argument is addressed, is that of the objector who focuses his attention upon the word itself that stands in the subject position of a sentence and asks grammatical questions about this word, without regarding how it must function in the *intellectus* of the proposition. It has already been shown that Ferrer thought words in and of themselves were of no intrinsic interest to the logician. Not only has such an objector misunderstood this; he has also proceeded to ask questions that are appropriate for grammarians rather than for logicians. He has raised a problem about words that can be cleared up through attention to the *intellectus* of the proposition that the words may be used to express.

But there is still more to be said about the matter. Ferrer also argues in this context that one can consider the import (*res importata*) of terms in two ways, as they are absolutely and as they are predicated or subjected (*alio modo sumendo eas ut predicantur vel subjiciuntur*). Thus the contrast that Ferrer wants to make here is not only between a consideration of the shape or sound of written or spoken words and an *intellectus*, but also between a consideration of the intent of a word and that of a proposition. One can ask important and meaningful questions about the import or sense of an individual word (always, of course, keeping in mind the injunctions against anthropomorphism and remembering that words have senses only as used and as a result of their capacity for use). But even this concern is not the one that Ferrer would urge upon the logician. The logician should be concerned about reconstructions that would lay bare the logical structure of propositions. Indeed, throughout this treatise on supposition, he has made it clear that supposition theory has to do with the structure of propositions. Thus he seems here to be directing the attention of the logician primarily to certain syntactical questions. These can be answered by clarifying and stating what is the *intellectus* of a proposition, because the syntax of the *intellectus* has something in common with the structure of the

state of affairs in the world.[9] In this connection it is well to recall the problem that was reviewed concerning the structure of propositions using terms like *solus*. There it was the operation of the syncategorematic term upon the structure of the proposition that Ferrer hoped to expose by his analysis of the *intellectus* of the proposition.

The second concrete case of analysis in *De suppositionibus* that I wish to consider, is one in which the author distinguishes between the force (*vis*) of a term as it may be considered in itself or by the grammarian, and as it functions in a given proposition. In this case one again sees Ferrer's use of the distinctions I have just discussed, but he is more explicit about the exact way in which these distinctions are employed. He observes that all terms used with material supposition (e. g., *omnis* in *Omnis est dictio sincathegorica* or *amo* in *Amo est verbum prime persone*) are used with a nominative force (*habet vim nominis*) regardless of how, as what part of speech, they might ordinarily function (p. 70). The reason for this is obvious. In material supposition the language unit is used as a name for itself or, to be more accurate, as a name for itself as it functions to express an intent. St. Vincent is quite clearly drawing a distinction like the recently popular one between mentioning and using a word. This distinction is drawn on the basis of an analysis of the *intellectus* of a proposition which shows the logical force of a word as it is used in this particular proposition to express this *intellectus*. This force can then be compared and contrasted with the force that the term has by virtue of its being a certain part of speech. Thus the *vis* of a term might be regarded as its function, either as it is actually performed on a given occasion, or as it might possibly be performed. So in "'Every' is a syncategorematic expression" "every" is shown by a reconstruction in terms of the intent of the proposition to be functioning as a noun, although "every" would not ordinarily be considered by a grammarian to be a noun. The logical force of "every" in this case is shown by the way it plays a role in the structure of the *intellectus* expressed. One should not conclude from this logical reconstruction that "every" is a noun, however. The parts of speech are categories of the grammarian and, Ferrer thinks, should be left to him. The logical *vis* of a word, as it is determined by the structure of the *intellectus* of a

[9] One might be disappointed that Ferrer has left this matter so vague as far as distinctions between semantic and syntactic questions are concerned. Unfortunately, as some scholars have observed, these distinctions are often blurred in mediaeval supposition theory. This is an important matter for the understanding of mediaeval logic, but an adequate discussion of it and of the views of scholars about it would take us far beyond the scope of this essay.

proposition, must be distinguished from its grammatical *vis* as a part of speech. That a word is used on a given occasion with a nominative function does not mean that we should call it a noun; as Ferrer puts it, "Nor ought a bailif to be called a king because he carries out the functions of a king" (p. 71).

The problem that particularly concerns Ferrer in this context might not seem quite so troublesome to us because, possessing a quoting device, we can more readily show the distinction at issue in modern English than the mediaeval writer could in fourteenth century Latin. Nevertheless, the technique of analysis that Ferrer uses, that of showing through a reconstruction of a proposition in terms of its *intellectus* that the logical force of a given word in the proposition differs from its grammatical force, is not restricted to this problem but has general application in his method.

Finally I wish to consider the application of Ferrer's method of reconstruction to a somewhat different problem. Ferrer contends that logical analysis will sometimes reveal, that sentences which are flawless from a grammatical point of view do not in fact have any perfect or complete sense. (. . . *hae propositiones homo est risibilis prius quocumque alio, color est objectum visus prius quocumque alio, et similes, non habent omnimodum perfectum sensum* p. 25). They do not, as they stand, express any complete *intellectus*. Logical triangulation shows that they perform as propositional functions (cf. I. Thomas, *op. cit.* p. 94). The sentences that Ferrer has in mind here are sentences containing certain relative terms, as we see from his examples: "Man is the prime object of risibility" and "Colour is the prime object of vision." According to our author, one cannot know whether to affirm or deny these statements and others like them, until one knows the terms of the relations involved, that is, until one knows what are the sets of objects among which man is prime in risibility and colour is prime in visibility. Certainly it makes no sense to assert that man is prior to everything else in risibility because it makes no sense to ask of some things whether they can laugh; for example, no one would ask whether or not "middle C" can laugh. Sentences like this, then, do not make a complete *intellectus* as they stand; they can be used to express an *intellectus* if the terms of their relations are spelled out. And just as it would make no sense to affirm or deny "Fx" until the variable were bound by a quantifier or replaced by a descriptive constant, it makes no sense to affirm or deny these relational propositions until the sets of objects with which the relations are concerned have been made explicit.

So, in this example, one sees another sort of contrast between language and *intellectus* which is expressed in language, that must be made explicit by the logician in his capacity as *artifex intellectualis*. One might be misled by the grammatically complete form of certain sentences to suppose that they expressed complete *intellectus*, to suppose that they had a "perfect sense," and this mistaken supposition might lead one to affirm or deny the truth of the statements in question with all sorts of confusing and paradoxical results. These results are symptoms of a kind of logical boundary dispute; the logician must step in, not simply to observe the scene, but to draw up a clear boundary by means of some triangulation.

IV

After citing these three concrete cases of logical analysis in *De suppositionibus*, I now wish to summarize what has been said so far about the logician's task and to show how these cases contribute to an understanding of that task. St. Vincent holds that logic is not about words. The logician has no interest in language for its own sake. What were regarded as logical properties of words (*significatio*, *suppositio*, etc.) are, he contends, not properties of any written or spoken words but are properties of the intent that is expressed by words. The intent or sense of the whole proposition is called by Ferrer the *intellectus* of the proposition. This is what the logician must investigate. The sense in which *intellectus* is used to mean the intent of a proposition must be sharply distinguished, however, from *intellectus* meaning a faculty of the mind. Ferrer does not think the logician should be interested in describing the mind and its faculties and acts. This is the job of psychology. The *intellectus* of a proposition is, nevertheless, the content of a mental act by which the mind intends what is expressed in the proposition. But the logician is not interested in any particular person's mental acts; what interests him are the *intenta* that may be contents of acts, and these can be viewed as constituting a kind of language. The language of *intenta*, unlike written and spoken languages, has a natural adequacy for describing the world because *intenta*, as they are used in framing the *intellectus* of a proposition, share a kind of structure with the world. This structure, which is common to both the content of thought and the world, is what is really the primary concern of the logician. Although Ferrer calls the logician an *artifex*, he is in one way an observer. He does not make up the rules of logic; they are not decided by convention. There are "morals" in logic, because thought that is to express truths about the world must share certain basic patterns with the world.

These patterns must be reflected in the form of *intellectus* and in the logician's operations governing their relations with each other.

Yet the logician is to be an *artifex*, and in his capacity as *artifex intellectualis* he is to exercise great care about language. Since the *intellectus* of propositions, by virtue of the fact that they have a structure in common with reality, constitute a kind of ideal language for the purpose of describing the world, they can be compared and contrasted with the written or spoken propositions through which they are expressed. These propositions and the words that make them up do not in and of themselves say anything at all; they have no meanings in themselves. Again Ferrer's anti-anthropomorphic view of language is evident. The intent of *intellectus* that language expresses is what, strictly speaking, describes the world. According to Ferrer, the language that expresses the *intellectus* "shows" what the *intellectus* says. But he thinks showing is not as clear or accurate as saying. What shows does not have anything naturally in common with the world. Therefore, the linguistic expression of propositions can lead one into all sorts of logical errors. One might regard a subject as having the wrong kind of *suppositio*. The wording of a proposition might make it appear false when its *intellectus* is obviously true. One might suppose that the divisions of supposition theory are not sufficiently inclusive or must be weakened by detailed exceptions, because one has supposed that a grammatically complete sentence expresses a complete sense. Thus the logician as *artifex* must play an active role in reconstructing propositions whose grammar or lingustic expression lead to puzzles and difficulties in terms of the *intellectus* they might express.

In examining these three examples of Ferrer's own reconstruction it becomes clear that the logician must direct his attention neither to purely grammatical questions nor to questions about the intent or sense of isolated words, but to questions about the structure of the *intellectus* of a whole proposition. When one thus considers the structure of a whole propositional *intellectus*, one can often distinguish the logical force of a term as it is used within the context of the proposition from the grammatical force of the term, which it has by virtue of the fact that it is a certain part of speech. Finally, some grammatically correct propositions that raise problems for the logician may not in fact express any complete sense. That is, they cannot be used to express any *intellectus* without being further expanded. The logician must spell out what the appropriate expansions could be in order to expose the form of the *intellectus* of the reconstructed proposition.

V

The student of modern philosophy has undoubtedly noticed some ways in which Ferrer's method of reconstruction is similar to that of the reconstructionists; he has undoubtedly also noticed ways in which it is different. As I suggested earlier in this discussion, I think it would be misleading to push these comparisons too far. Nevertheless, I wish in conclusion to suggest one parallel with a modern philosopher. The parallel is not perfect, but I think it is interesting and worth pointing out. Ferrer's concern about what language shows as opposed to what it says, may have had a familiar ring to it for the reader of twentieth century philosophy. Wittgenstein says in the notes dictated to G. E. Moore in Norway in 1914:

> "In any ordinary proposition, e. g., "Moore good," this *shews* and does not say that "*Moore*" is to the left of "good;" and *here* what is shewn can be said by another proposition. But that only applies to that *part* of what is shewn which is arbitrary. The *logical* properties which it shews are not arbitrary, and that it has these cannot be said in any proposition."[10]

St. Vincent thought words do not say anything; they show what an *intellectus* says. Wittgenstein here thinks propositions show their "logical properties." Of course, they also say something. According to what I take to be the doctrine of the *Tractatus*, they show certain configurations of things, possible facts, and say that the possible facts that they show exist (4.022). What they show they share with reality; what they share with reality is logical form (2.17, 2.172, 2.18). For the time being we can ignore the complications in Wittgenstein's doctrine that do not enter into Ferrer's, but we must pursue a bit further Wittgenstein's notion that propositions show logical form or logical properties that they share with reality. This would have interested St. Vincent.

In the *Tractatus* Wittgenstein writes, "Instead of property of the structure I also say 'internal property,' instead of relation of structures, 'internal relation.'"[11] And going on a bit one reads, "A property is internal if it is unthinkable that its object does not possess it" (4.123). It appears to be the case that logical or internal properties are properties that a thing cannot be thought of as not having. This is supported by a remarkable entry in the G. E. Moore notes where Wittgenstein says

[10] Ludwig Wittgenstein, *Notebooks 1914—1916*, ed. G. H. von Wright and G. E. M. Anscombe, trans., G. E. M. Anscombe (New York, 1961), p. 110. All italics in quotations from this work are the author's.

[11] 4.122. All quotations are from the 1922 edition of Wittgenstein's *Tractatus Logico-Philosophicus*.

in the context of a discussion of internal relations, "We might thus give a sense to the assertion that logical laws are *forms* of thought and space and time *forms* of intuition" (p. 117). In *Tractatus* (4.12) Wittgenstein remarks, "To be able to represent the logical form we should have to be able to put ourselves with the propositions outside logic, that is, outside the world." I think Wittgenstein's quasi-Kantian comment in the *Notebooks* helps to explain what he thought was unsayable about logical form and why he thought it unsayable. Logical laws are forms of thought; we must think of things as having certain formal properties, as being capable of entering into certain configurations. Thus there must be a parallel between the structure or patterns of what is thought and certain basic patterns in the world. In this sense thought and the world share logical form. And Wittgenstein also reminds one a bit of Ferrer in his insistence that one contrast what is arbitrary and can be said about the form of a proposition — the purely linguistic matter of the order in which written words are set — with the logical properties of the proposition — the form of the thought that is expressed in the proposition.

Wittgenstein, however, thought it impossible to think about the forms of thought themselves; thus it is impossible to step outside the limits of language. Prof. G. H. von Wright has quite perceptively suggested that the only thorough parallel to Wittgenstein's doctrine about the limits of language is Kant's doctrine about the *a priori* of reason.[12] Although there seems to be some parallel between the views of the early Wittgenstein about logical form and Ferrer's belief that the content of thought shares a kind of logical form with the world, which form is of primary concern to the logician, there is no comparable ineffability theses in St. Vincent. He apparently saw no difficulty in the prospect of thought reflecting upon its own structure, of one's thinking about the form of what is thought. Indeed, he wrote a whole treatise about the structure of what is thought. And instead of suggesting that it, like Wittgenstein's ladder, be thrown away, he commends the thing, with gratitude, to the Holy Trinity!

JOHN TRENTMAN

Huron College
University of Western Ontario
London, Canada

[12] G. H. von Wright, *Logik, filosofi, och språk* (Stockholm, 1957), pp. 146—147.