This paper presents a 'pragmatic explanation by objects of comparison' as an alternative to a 'scientific explanation by deductive-nomological model.' While the scientific explanation is epitomized by Chomsky, the proposed 'pragmatic explanation by objects of comparison' is a product of philosophical reflection on 'scientism' and 'essence' by Hayek and Wittgenstein respectively. The paper argues that the pragmatic explanation by objects of comparison has its own role: it shows similarities and dissimilarities at the same time, giving us a clear view, free from a preconceived idea of 'what must be the case', which is inherent in the scientific explanation.

Key words: objects of comparison, explanation, Wittgenstein

1. The scientific explanation by deductive-nomological models

At first glance, the proposition that all studies in English Language Education must be scientific produces no concern. On the contrary, the negation of the proposition sounds like an excuse for second rate research. After all, we are not supposed to be satisfied with the success or failure of a particular case: we are more interested in generality rather than particularity, for only the former makes application of a finding to other cases possible, or so we usually believe.

This preference is buttressed by the metaphysical belief, which is not always explicitly expressed, that the world is systematic and that the role of science is to find the laws which causally constitute the system. It is anticipated that a proper combination of laws predicts the possible event. It is furthermore assumed that this world is ultimately a physical world and therefore physical science is fundamentally superior to social or human science, if there can be such a thing at all. The objective of scientists is, therefore, to discover laws of nature because the laws remain hidden until scientists reveal them by their scientific discovery.

Therefore, 'explanations' that are given by studies are to be scientific ones and they should be deductive-nomological: they should lead to a prediction by sequential logical application of laws scientists have found. The efforts of scientists should be first and foremost on discovering hidden laws, for without the discovery there is no way for application. Wittgenstein describes this mindset as follows:

'The essence is hidden from us': this is the form of our problem now assumes. We ask: "What is language?", "What is a proposition?" And the answer to these questions is to be given once and for all; and independently of any future experience. (Wittgenstein, 1958: §92)

This type of scientific inquiry is perhaps epitomized by Chomsky's project. In a now classical statement, Chomsky deplores the status of 'particular grammar'.

"Particular grammar" is not a true "science" in the sense of this rationalist tradition because it is not based solely on universal necessary laws; it is an "art" or technique that shows how given languages realize the general principles of human reason. (Chomsky, 1986: 1)

Having so stated, Chomsky declares that his linguistics, the scientific study of language, is primarily about 'Universal Grammar', which "may be regarded as a characterization of the
genetically determined language faculty" (ibid. 3),
and says that three basic questions arise from this
standpoint: (i) What constitutes knowledge of
language? (ii) How is knowledge of language acquired? (iii) How is knowledge of language put
to use? For Chomsky, the first question is
fundamental, for without answering the first
question (knowledge of language), it is impossible
to start the second and the third questions
(language acquisition and language use), or so
Chomsky defines the entire framework of
questions concerning language. He furthermore
distinguishes what he calls E-language
(externalized language: the construct understood
independently of the properties of the mind/brain
(ibid. 20) and I-language (internalized language:
some element of the mind of the person who
knows the language, acquired by the learner, and
used by the speaker-hearer (ibid. 22). It is
obvious that he regards I-language as the far more
important concept because only the latter is
described as possessing the physical basis and
some important functions like language acquisition
and language use. Chomsky thus defines what he
regards as a proper study of language:

Theories of E-languages, if sensible at all, have
some different and more obscure status because
there is no corresponding real-world object.
Linguistics, conceived as the study of I-language
and So, becomes part of psychology, ultimately
biology. Linguistics will be incorporated within
the natural sciences in so far as mechanisms
are discovered that have the properties
revealed in these more abstract studies; indeed,
one would expect that these studies will be a
necessary step toward serious investigation of
mechanisms. (ibid. 27)

Given what Chomsky says about his project, shall
we, those in the field of English Language
Education as a Second Language, then, follow his
footsteps? Should we put our questions in the
form and order of (iv) how is the acquisition of
knowledge of language deliberately promoted? and
(v) how is the use of knowledge of language
deliberately promoted? In other words, do we
have to wait until Chomsky's first question is
answered to the extent that the second and the
third questions become somewhat answerable,
before we ask our pedagogical questions? Or, as
Chomsky (1988) suggests, are studies of English
Language Education mere 'arts' which are just
collections of interesting episodes? Are we either
to confine ourselves in the rigid framework of the
Chomskyan linguistic project, or to go on
'chatting' about our practices of English Language
Education? Is the former the only way that
researchers in English Language Education should
take? Here we are beginning to see a sign of
'Scientism', an uncritical (and even unscientific)
belief in the application of 'scientific method'. In
the next section, we would examine Scientism.

2. Scientism

Although Wittgenstein does not use the word
'scientism', he is highly critical of thoughtless and
excessive use of scientific method. Hayek, the
Nobel Prize laureate in economics in 1974, whose
later years saw prolific works in social
philosophy, is more explicit about scientism.
Therefore in this section we follow Hayek's
discussion in Counter-Revolution of Science (1952)
and see how an apparently reasonable scientific
approach can be abused in social or human
sciences.

Hayek asserts that scientism became apparent
during the first half of the nineteenth century.
The success in physical and biological sciences
'was such that they soon came to exercise an
extraordinary fascination on those working in
other fields, who rapidly began to imitate their
teaching and vocabulary'. (ibid. 20) Some of those
in the field of social studies thus 'vindicate their
equal status by showing that their methods were
the same as those of their brilliantly successful
sisters rather than by adapting their methods
more and more to their own particular problems.'
(ibid. 21) However, according to Hayek, the
following one hundred years and more of social
studies saw little contribution to our
understanding of social phenomena. It is not
Hayek's intention at all, though, to deny the
significance of scientific method per se. What he
is critical of is inappropriate applications of
The reason why the application of scientific method in some social studies is inappropriate is because they deal with 'consciousness' or 'concept' that we form socially. If it is the case that we often act because of the beliefs that we hold, the target of social studies should be nothing but those beliefs ('consciousness' or 'concept') that we possess. 'The fact that man has a definite picture, and that the picture of all beings whom we recognize as thinking men and whom we can understand is to some extent alike, is no less a reality of great consequence and the cause of certain events'. (ibid. 39). Let us follow what Hayek says:

It would be impossible to explain or understand human action without making use of this knowledge. People do behave in the same manner toward things, not because these things are identical in a physical sense, but because they have learned to classify them as belonging to the same group, because they can put them to the same use or expect from them what to the people concerned is an equivalent effect. In fact, most of the objects of social or human actions are not "objective facts" in the special narrow sense in which this term is used by the Sciences and contrasted to "opinions," and they cannot at all be defined in physical terms. So far as human actions are concerned the things are what the acting people think they are. (ibid. 43–44)

One might argue at this point that this social knowledge is merely 'subjective' and 'incomplete' and therefore cannot be the target of scientific studies. However this objection is like cutting the feet for a bed that is too short. The concrete knowledge that guides our acts 'only exists in the dispersed, incomplete, and inconsistent form in which many individual minds, and the dispersion and imperfection of all knowledge are two of the basic facts from which the social sciences have to start.' (ibid. 50) Hayek claims that the "absolutist" view, as if knowledge, and particularly the concrete knowledge of particular circumstances, were given 'objectively,' that is, as if it were the same for all people, is a source of constant errors in the social sciences'. (ibid. 50)

Whether the application of scientific methods in the studies in English Language Education is appropriate or not is the question that this paper is concerned with. However, if we do not have an alternative model of explanation to the scientific explanation above, then the scientific explanation by the deductive-nomological models remains by default, for after all something is better than nothing. In the following section we will follow Wittgenstein's argument and clarify the alternative model for studies in English Language Education.

3. Pragmatic explanation by objects of comparison

An alternative to the scientific explanation by deductive-nomological models, Wittgenstein suggests, is a pragmatic explanation by 'objects of comparison'.

An explanation by objects of comparison is to be seen in §§66–69 of Philosophical Investigations (1958). There, Wittgenstein deals with the question of "what is a game?" He dismisses what seems to be the defining feature of a game in turn: "Amusing?" —"Some are not necessarily so." "Winning or losing?" —"Think of a solo-game" "By skill and luck?" —"How about ring-a-ring-a-roses." Wittgenstein discourages us to think in terms of theoretical constructs and invites us to 'look'.

Consider for example the proceedings that we call "games". I mean board-games, card-games, ball-games, Olympic games, and so on. What is common to them all? —Don't say: "There must be something common, or they would not be called 'games'" —but look and see whether there is anything common to all. —For if you look at them you will not see something that is common to all, but similarities, relationships, and a whole series of them at that. To repeat: don't think, but look! (ibid. §66)

Wittgenstein describes these similarities as 'family resemblances'. Just like members of a family resemble in one way or another, in build, features, color of eyes, gait, temperament, etc., etc., instances of 'games' have multifarious similarities
and dissimilarities: in other words, 'games' form a family.

If you are theoretically adept, you might claim that there is still something common to all instances, that is, the disjunction of all their common properties (ibid. §67). However, this type of concocted theoretical construct is of no pragmatic help. "You are only playing with words", as Wittgenstein says (ibid. §67). Still you might argue against Wittgenstein and say that the added 'etc' or 'and so on' shows 'incompleteness' of the concept. Wittgenstein counters this argument by saying 'This is not ignorance. We do not know the boundaries because none have been drawn,' except for a special purpose (ibid. §69). (Also recall what Hayek said about the incompleteness of human knowledge.)

In the case of 'games', too, showing specific instances of various games in a careful way as 'objects of comparison' suffices as a proper explanation. No theoretical construct is used and no universal claim is made, but we see what 'games' are more clearly because of objects of comparison. Had you wished to employ the deductive-nomological explanation, you might well have distorted the picture of what games are, missing 'what is the case' (family resemblance of games) for 'what must be the case' (the presumed essence of games).

A similar example is given in §14 about the 'essence' of 'tools'.

Imagine someone's saying: "All tools serve to modify something. Thus the hammer modifies the position of the nail, the saw the shape of the board, and so on." —And what is modified by the rule, the glue-pot, the nails? —"Our knowledge of a thing's length, the temperature of the glue, and the solidity of the box." —Would anything be gained by this assimilation of expressions? — (ibid. §14)

For ordinary concepts that have no clear boundaries, it is probably better not to assume rigid theoretical essence, but to look and describe them just as they are in a careful way.

Then, should the concept of 'language' be considered an ordinary concept or a scientific concept? In other words, which type of explanation is better for 'language', a pragmatic explanation by objects of comparison or a scientific explanation by deductive-nomological model? We have seen Chomsky's example of a scientific explanation so far. So let us see an example of a pragmatic explanation by objects of comparison offered by Wittgenstein.

After turning down attempts to reduce the multiplicity of language to one feature, Wittgenstein states:

And this multiplicity is not something fixed, given once and for all; but new types of language, new language-games, as we may say, come into existence, and others become obsolete and get forgotten. (We can get a rough picture of this from the changes in mathematics.)

Here the term "language-game" is meant to bring into prominence the fact that the speaking of language is part of an activity, or of a form of life.

Here, we should notice how Wittgenstein carefully altered the terms to talk about language. The question 'What is language?' usually invites a straightforward answer like 'X is (the essence of) language', as if the independent existence of X were obvious and beyond question. But this is a source of philosophical confusion. So Wittgenstein talks about 'speaking of language' rather than just about 'language' per se. Wittgenstein departs from the Chomskyan mindset at this point and does not talk about 'knowledge of language', as Chomsky does. This aspect of 'speaking of language', rather than 'language', is emphasized by the term 'language-game', and these two expressions together direct our attention to the fact that language is involved in an activity of life, or part of a form of life. Unlike Chomsky, Wittgenstein sees language (-in-use) as spatio-temporal phenomena, not as the independent and autonomous entity possessed by 'the ideal speaker-hearer', which is timeless and context-free. This is Wittgenstein's declaration that the question of language should not be separated from the question of specific activities of life, which is the context of the language in use. This is quite different from Chomsky's hierarchical questions starting from 'What is knowledge of language' to 'How is knowledge of language acquired'.
and 'How is knowledge of language used'.

Wittgenstein has anticipated some criticism against this approach, for Wittgenstein himself was once devoted to the question of the essence of language in his early works.

Here we come up against the great question that lies behind all these considerations. -For someone might object against me: "You take the easy way out! You talk about all sorts of language-games, but have nowhere said what the essence of a language-game, and hence of language, is: what is common to all these activities, and what makes them into language or parts of language. So you let yourself off the very part of the investigation that once gave you yourself most headache, the part about the general from of propositions and of language."

And this is true. -Instead of producing something common to all that we call language, I am saying that these phenomena have no one thing in common which makes us use the same word for all, —but that they are related to one another in many different ways. And it is because of this relationship, or these relationships, that we call them all "language", (ibid. §65)

Therefore, Wittgenstein's withdrawal from the search for generality is philosophically deliberate, for he realized that the craving for the essence is the very source of philosophical confusion.

However, Chomskyans might say that what Wittgenstein calls a philosophical confusion is an illusion, by citing Universal Grammar as evidence of the essence of language. 'After all, Wittgenstein is empirically refuted' is what Chomskyan linguists might say. Yet is the matter so simple?

Take some features of Universal Grammar, for example. Any language, generative linguists say, has Head and Complement in an X-bar structure. Any language is either Head-initial or Head-final. Or they might say that for some languages the Pro-drop parameter is on, whereas for others it is off and so on. This 'principle-and-parameter approach' is truly amazing in its explanatory adequacy. However given the controversy concerning the exact number of parameters or theta roles, these linguists' concern seems to be more on 'what must be the case' than on 'what is the case'. Is it not likely that these generative linguists cannot conclude on these because they assume that there must be one and only one conclusion and that more than one answer cannot be a conclusion? Or would it be too much to say that their theoretical claims remind us of Wittgenstein's phrase 'the disjunction of all their common properties,' at least from a practical point of view such as that of language teachers? Could these linguists not be 'only playing with words' in some sense? My response is 'could be, at least from the view point of second language teaching', but let us not be too hasty, and see what Wittgenstein says about 'objects of comparison'.

Wittgenstein is not interested in systematizing his theories, for he believes that such an attempt would distort the picture. He used the language-game between a builder and an assistant, for example, because that will clearly show what is and is not the case, not because this language-game will be a core or something of a future theory.

Our clear and simple language-games are not preparatory studies for a future regularization of language —as it were first approximations, ignoring friction and air-resistance. The language-games are rather set up as objects of comparison which are meant to throw light on the facts of our language by way not only of similarities, but also of dissimilarities. (ibid. §130)

Notice that objects of comparison are not abstract or higher-order, or even theoretical. They are just particular examples that are carefully chosen to show what is the case. They are easier to understand than theoretical constructs because of their specificity. They are not remote at all from our form of life; they are within it. Objects of comparison enable us to command a clear view.

Says Wittgenstein:

For we can avoid ineptness or emptiness in our assertions only by presenting the model as what it is, as an object of comparison —as, so to speak, a measuring-rod; not as a preconceived idea to which reality must correspond. (The dogmatism into which we fall so easily in doing
If we take models to be 'what must be the case', then we assume that the reality must somehow correspond to the model and we begin infinite mutual adjustment of the reality and the model. We think that the fault lies in our explanations and that we need to construct ever more subtle and surprising accounts, as McGinn (1997: 19) says. If, on the other hand, models serve the role of enabling us to see things clearly, nothing of that sort of complication is needed. The reality need not exactly correspond to models and there can be much room for exceptions and ambiguities. Just as things to be measured by a measuring-rod do not have to be straight in itself (like a dog when its height is measured), the reality is essentially independent of the model. The features that we project onto the target are those of the model, not those of the target itself.

Someone might still argue that showing one or more than one objects of comparison is only possible because we have 'an unformulated definition' (ibid. §75), or perhaps 'implicit knowledge' or 'unconscious mental representation', or whatever term that suits your taste. Taking 'games' for example, Wittgenstein objects:

Isn't my knowledge, my concept of a game, completely expressed in the explanations that I could give? That is, in my describing examples of various kinds of game; showing how all sorts of other games can be constructed on the analogy of these; saying that I should scarcely include this or that among games; and so on. (ibid. §75)

Therefore, "Here giving examples is not an indirect means of explaining —in default of a better (ibid. §71)". Giving examples, particularly as objects of comparison, is sometimes one of the best ways to understand the reality; the scientific explanation is not necessarily the only one and the best. Pragmatic explanations by objects of comparison and scientific explanations by deductive-nomological models are different in kind and purpose; neither is superior or inferior to the other in itself. This is the idea that scientism never allows due to its excessive belief in science, yet now that we went through Hayek's and Wittgenstein's philosophical reflection, this pluralism should be accepted.

Nevertheless, one might suspect that explanation by objects of comparison leaves some room for misunderstanding. Yet "any general definition can be misunderstood" (ibid. §71), as Wittgenstein says, for no definition is free from interpretation when it is applied in actual cases. One must somehow interpret the definition and there always lies a possibility of misapplication, hence misunderstanding. In this sense, any explanation needs another explanation. But if we are to seek a complete chain of explanations that eliminate any misunderstanding, then we would be mistaken again.

Whereas an explanation may indeed rest on another one that has been given, but none stands in need of another —unless we require it to prevent a misunderstanding. One might say: an explanation serves to remove or to avert a misunderstanding —one, that is, that would occur but for the explanation; not every one that I can imagine. (ibid. §87)

Just as we are now free from the dogma of 'what must be the case', we should also be released from the urge of a 'complete explanation with no possible misunderstanding'. Explanations cannot remove all possible misunderstanding, hence we should only expect explanations to avert one or a few particular misunderstandings that are most likely to come out. This is not an understatement of explanations, but the reality of explanations.

Having thus reduced the burden of explanations, what can explanations by objects of comparison offer us? For it seems that our critical examination of explanations so far is rather destructive, or 'deconstructive' at best. Wittgenstein asks himself and answers:

Where does our investigation get its importance from, since it seems only to destroy everything interesting, that is, all that is great and important? (As it were all the buildings, leaving behind only bits of stone and rubble.) What we are destroying is nothing but houses of cards and we are clearing up the ground of language on which they stand. (ibid. §118)

Then what can we do, standing on the ground
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which has been cleared up? 'Commanding a clear view' is Wittgenstein's answer (ibid. §122). From a clear view we 'see connections', and seeing connections makes up understanding. By 'finding and inventing intermediate cases' (ibid. §122) through objects of comparison, we see more similarities and dissimilarities, a multitude of phenomena, and realize that 'nothing out of the ordinary is involved' (ibid. §94): No special theoretical construct is necessary except for a very technical purpose. We must realize this despite our intellectual urge to complicate the matter imposed by our conventional but uncritical use of the language. Wittgenstein states what he does in the following way:

We want to establish an order in our knowledge of the use of language: an order with a particular end in view; one out of many possible orders; not the order. To this end we shall constantly be giving prominence to distinctions which our ordinary forms of language easily make us overlook. (ibid. §132)

Now we have finished our brief look at the alternative model for studies in English Language Education: a pragmatic explanation by objects of comparison. Its approach, method and philosophy are distinctively different from those of the scientific explanation by the deductive-nomological model. We need to recognize their difference and learn to use them respectively.

References