

CHAPTER IV  
ABDUCTION, DEDUCTION, AND INDUCTION  
IN THE COGNITIVE SYSTEM  
OF ULYSSES

Such is the perfection of knowing in so far as it is such, for in the degree to which it knows the known in a certain way exists in it. . . . And according to this mode of perfection is it possible that the perfection of the entire universe may exist in a single and particular thing. --St. Thomas Aquinas, De Veritate, 2,2

It is that course of meditation upon the three Universes which gives birth to the hypothesis and ultimately to the belief that they, or at any rate two of the three, have a creator independent of them. . . . This is the 'humble argument, the innermost of the nest. In the mind of a meta-physician it will have a meta-physical tinge; but that seems to me rather to detract from its force than add anything to it. It is just as good an argument, if not better, in the form it takes in the mind of a clodhopper -- Charles Peirce, "A Neglected Argument."

In the previous chapter we established abduction as a means of understanding the systematic and processual semiosis of Telemachus. In this chapter we will discuss the subsequent episodes of Ulysses as they complete the Play of Musement. We will further consider the abduction in the remaining two episodes of the first division of the novel; deduction in the second division (episodes 4-15); and induction in the final three episodes. We have already been considering the Musement of the novel as a whole. Now we will consider the process in more detail. Just as Umberto

Eco's theory was used to further elaborate features of the semiosis in Telemachus, John Deely's description of the three stages of cognition, which are equivalent to the process of semiosis (discussed in Chapter II), will be used to elaborate the generative and hierarchical relationships among the episodes.<sup>1</sup>

Our examination, which follows Joyce's own division of the novel into three sections (I, II, and III), will provide explanations for the shift to Leopold and Molly Bloom in the second division and the change in perspective found in the final division. As we proceed we will understand the manner in which the double aspect of semiosis (its systematic and processual nature) replaces traditional narrative concepts. Above all, it will become clear that the only rule in the novel's Play of Musement is that of liberty, or Pure Play.

Because the lengthy middle section of the novel exhibits deduction, or an examination of the hypothesis and "a muster of all sorts of conditional experiential consequences which would follow from its truth" (6.470), there is no necessary or predictable sequence of episodes. Yet the first step in deduction is the explication of the hypothesis which, in abduction, is only conjectured; and the second step is a demonstration which "limits itself to considerations already introduced or else involved in the Explication of its conclusion" and which also "resorts to a more complicated process of thought" (6.471). To make the discussion more coherent and focused, the language will be considered as it

exhibits the following categories of relations: language as object and relation; language as a secondary modeling system; language as a post-linguistic structure itself; and language as a post-linguistic structure affecting human behavior. Such a means of ordering the twelve middle episodes is appropriate in as much as the hypothesis posits a relationship between material and process in nature and in art. Such an ordering highlights the innovations possible with the unique hypothesis which initiates the Play of Musement.

The hypothesis which Stephen receives through the process of abduction is unique. It is an "originary idea" by definition. But the nature of the idea is that it posits the source of the surprising phenomenon as "a possible physical causality functioning as content" (Eco, Theory, 221, discussed in previous chapter). The hypothesis is an idea in a "generic sense," what Deely calls a sign "which make[s] possible the existence of objects cognized." It is thus quite different than "signs which must be perceived even in order to function as signs" (Semiotic, 176). The hypothesis is what Aquinas calls a formal sign, a sign "whose whole essence is to signify."<sup>2</sup>

For this reason the hypothesis is able to bring to mind what is not. Aquinas, Peirce, Deely, and others emphasize this unique feature of the "originary" idea (formal sign, hypothesis, generic idea). Jacques Maratain explains Aquinas' remarks on the formal sign by stressing the

above-mentioned value: "it is not an object which, having at first its full value as an object, nevertheless primarily signifies some other object; it is something which makes itself known before being itself known as an object, or more precisely, something which before being itself known as an object by an act of reflection, is only known by the knowledge which is conveyed by its means to the mind of the object, in other words, which is known not it 'appearing' as an object, but by 'disappearing' as object, because its essence is to relate the mind to something other than itself."<sup>3</sup> Peirce emphasizes the same features when he relates it to a method of forming a general prediction or of regulating future conduct (2.66; 2.86). It is not what is known, but the means of knowing. Deely states that it belongs "to the order of what is not as contrasted with what is susceptible of critical resolution at the empirical level" (Semiotic, 129).

Because of this aspect of the hypothesis (or formal sign) the reader should not be surprised that in Nestor Stephen considers that "yet it was in some way if not as memory fabled it," and wonders of what is not: "had Pyrrhus not fallen by a beldam's hand in Argos or Julius Caesar not been knifed to death. They are not to be thought away" (U 24-5/25-6). The point of view Stephen exhibits can be called semiotic.

In Nestor Stephen is further considering the hypothesis "in the interrogative mood, as a question meriting attention and reply, up thorough all appraisals of plausibility," (6.469). The frame of the lesson is thus iconic. But the frame is significant in other additional respects. Of course the concept of a frame or of a boundary between episodes is necessary because of the system of the text, but how it operates becomes important. Crossing the boundary can be identified with the value of the content.<sup>4</sup> As a reader crosses the boundary between Usurper to "You," he or she is brought to a reconsideration of the hypothesis through a demonstration of it. The reader considers part/part (or episode/episode) relationships and part/whole relationships. The reader's position vis a vis the text is similar to Stephen's position; both are brought to consider the hypothesis. Within the episode Stephen "goes through" the frame of a picture on Deasy's office wall and identifies with the content (U 32/33), an action which provides an icon of the reader's movement across the frame or boundary.

The frame of the lesson confronts the reader with the question of his or her own implication in the text. Like the students in the class, readers are brought to consider the meaning of what is known, the content of which is held in our hands like the books of Stephen's students:

--You, Cochrane, what city sent for him?

--Tarentum, sir.

--Very good. Well? (U /25).

Cochrane, like the reader of Ulysses, must make decisions about what it is that bears discussion (that is, in other words, meaningful). And, of course, Stephen also further considers the startling conjecture, as we are clearly shown in both his direct interior monologues and in the content and expression system of the episode. Stephen is explicitly reasoning from consequent to antecedent, the characteristic type of reasoning of abduction. "In most instances where conjecture mounts the high peaks of Plausibility -- and is really most worthy of confidence -- the inquirer is unable definitely to formulate just what the explained wonder is; or can only do so in the light of the hypothesis" (6.469). Thus Stephen considers the wonder of the conjecture in the "light" of the hypothesis.

The students, the reader, and the character Stephen are all in "a model the intentionality of which contains more information than that provided by the stimulus."<sup>5</sup> The stimulus for Stephen has been the surprising phenomena discussed in the first episode (at "Chrysostomos"). The stimulus for the reader is found in crossing the boundary between the episodes and in relating the previous material to the new material. For the student the stimulus is part of the structure of the context as he must figure out what in

the assigned text is significant and what his instructor would be implying or pointing to in his questions.

--There was a battle, sir.

--Very good. Where?

The boy's blank face asked the blank window.

Fabled by the daughters of memory. And yet it was in some way if not as memory fabled it. A phrase, then, of impatience, thud of Blake's wings of excess. I hear the ruin of all space, shattered glass and toppling masonry, and time one livid final flame. What's left us then? (U 24/25).

The direct interior monologue reflects Stephen's concern with the hypothesis. Unlike fable or allegory, which according to Blake is "Form'd by the daughters of memory," the insight or "originary idea" found in abduction is the mother of memory, the muse of all the arts. The standpoint which allows Stephen to consider the difference between what has been fabled (through culture and convention) and what originally was the basis of the fable is a semiotic standpoint. Deely defines the doctrine of semiotics as "a department of knowledge belonging to the order of what is not as contrasted with what is susceptible of critical resolution at the empirical level," and this is exactly where Stephen's consideration has brought him. How is abduction possible?<sup>5</sup>

Considering the difference between how "it was in some way" and how "memory fabled it" is considering the relation between antecedent and consequent, and the relation between what is resolvable at the empirical level and what belongs "to the order of what is not." Abduction is defined as a

consideration from consequent to antecedent (reinforced here for the reader by the omission of an antecedent to the pronoun it). And the hypothesis, because it is an "originary idea" not derived from the senses alone, and because it is of the nature of a pure signifier whose signified is pure content, brings the empirical and the non-empirical into a new relation. Thus the conventional content, the culturized aspects of society and the culturized points of view with which we regard it can be toppled. The artistic process is like the natural process, according to what we have inferred from the hypothesis, and the glass and masonry of society are part of neither. They can be critiqued and evaluated with the method implied by the hypothesis. But if so, if society (its convention and its material being) can be so evaluated with the method implied by the hypothesis, what, then, would be the content (or the signified)? "What's left us then?"-- Stephen is considering what is not (but possible) from the vantage of reflecting from the hypothetical end. He is considering a kind of writing which would include the mediation between what is and what is not. He is considering a kind of writing in which culture can be critiqued. Clearly, he is not thinking of writing an imitation of what exists. He is contemplating an "originary" work of art wherein Nature and Homer are the same.<sup>7</sup>

The phrase "of impatience," the thought "fabled by the daughters of memory," and the other details of Stephen's direct interior monologue, of course, are somewhat

applicable, in a comic way, to Cochrane's "blank" behavior. But writing is Stephen's main concern. Cochrane, having "forgotten the place" of the battle offers instead a pennysworth of wisdom, a phrase:

--Yes, sir. And he [Pyrrhus] said: Another victory like that and we are done for.

And Stephen reflects upon the nature of discourse:

That phrase the world had remembered. A dull ease of the mind. From a hill above a corpsestrewn plain a general speaking to his officers, leaned upon his spear. Any general to any officers. They lend ear (U 24/25).

Stephen considers the manner in which discourse abstracts or generalizes empirical reality. Empirical reality becomes dependent upon discourse, which is also part of empirical reality. Stephen also considers the result of the abstraction and the material nature of writing: its "intentional" nature can be negative in relation to "reality." The corpses are somehow forgotten. Rather than a relation between the phrase Pyrrhus utters and the context of the phrase, what the world remembers is a simple phrase in a general sense. Rather than a relation between the historical past and the actual present via the phrase, what is remembered with "a dull ease of the mind" is a cliché of sorts.

Writing that does not reinforce the gap between the abstractive and material nature of discourse is needed.

Writing which is a genuine thirdness is needed. As Peirce explains:

Now in genuine Thirdness, the first, the second, and the third are all three of the nature of thirds, or thought, while in respect to one another they are first, second, and third. The first is thought in its capacity as mere possibility; that is, mere mind capable of thinking, or a mere vague idea. The second is thought playing the role of a Secondness, or event. That is, it is of the general nature of experience or information.

The third is thought in its role as governing Secondness. It brings the information into the mind, or determines the idea and gives it body. It is informing thought, or cognition. But take away the psychological or accidental human element, and in this genuine Thirdness we see the operation of a sign (1.537).

This kind of writing (as genuine Thirdness) is implicit in the hypothesis of Stephen's abductive process. It would allow us to "see the operation of a sign." Its materiality is thus requisite.

The problems that can exist (and which generally do exist) when the gap between the abstractive and material nature of discourse is undeniably present include as results: a vague understanding of the details of the past and a weak ability to connect the past with subsequent events; the unsophisticated belief that what is in the future is either destined or undecided; a materialist or idealist attitude toward the present; and ultimately a devaluation of writing.<sup>9</sup>

Stephen's next question is significant:

--You, Armstrong,. . . What was the end of Pyrrhus?

One would need to know something about Pyrrhus's particular

and general (personal and public) circumstances to discuss the relation between the battle of Asculum and the end of his life. But the relation between the one event and whole of his life, just as the relation between his life as one event in the whole event in the society, is, it seems, not worth consideration. And it is not worth consideration, unfortunately, from the traditional perspective, because (and here all the institutions and all the -isms which contribute would have to be listed) ultimately the present, past, and future are made to seem separate and unrelated and rather unreal. Of course, there is no one reason for the traditional perspective which makes what one person thinks more an individual idiosyncratic act than a potentially valuable means of contributing in some way to society, or the future. Practically speaking, "a belief that Christopher Columbus discovered America really refers to the future," as Peirce explains, because the "meaning of its being believed to be in connection with the Past consists in the acceptance as truth of the conception that we ought to conduct ourselves according to it (like the meaning of any other belief)."<sup>10</sup> Our own implication in the information -- even if it amounts to acceptance or rejection or doubt -- is thus significant. But this is denied, and "for them . . . history was a tale like any other too often heard, their land a pawnshop" (U 25/26). If we ask "Why had they chosen all that part?" (U 25/26), as does Stephen (in reference to both the students and the people who will gather at the literary event later that evening), we find a gamut of answers.

Within the gamut of answers is one in particular: they "stick to proclaiming the unreality of that Time, of which [they] are invited [to consider], be it reality or figment." As Peirce explains, "the unsophisticated conception is that everything in the Future is either destined, i.e., necessitated already, or is undecided, the contingent future of Aristotle. In other words, it is not Actual, since it does not act except through the idea of it, that is as a law acts; but is either Necessary or Possible, which are of the same mode since . . . Negation being outside the category of modality cannot produce a variation in Modality. As for the Present, it is so inscrutable."<sup>11</sup>

But Stephen's next thoughts express this even more effectively:

Had Pyrrhus not fallen by a beldam's hand in Argos or Julius Caesar not been knifed to death. They are not to be thought away. Time has branded them and fettered they are lodged in the room of the infinite possibilities they have ousted. But can those have been possible seeing that they never were? Or was that only possible which came to pass? Weave, weaver of the wind (U 25/26).

Time is Real to Stephen; it brands the past. But the Past is part of the Existential Mode of Time, its actuality is as Existent as that of the present. And "there is no time in the Present for any inference at all, least of all for inference concerning that very instant. Consequently, the present object must be an external object, if there be any objective reference in it. The attitude of the Present is

either conative or perceptive." Peirce continues, "Supposing it to be perceptive, the perception must be immediately known as external -- not indeed in the sense in which a hallucination is not external, but in the sense of being present regardless of the perceiver's will or wish. Now this kind of externality is conative externality. Consequently, the attitude of the present instant . . . can only be a Conative attitude. The consciousness of the present is then that of a struggle over what shall be; and thus we emerge from the study with a confirmed belief that it is the Nascent State of the Actual."<sup>12</sup>

This "struggle over what shall be" unites the Present with the Past. And it makes the future a question of what will be controllable, for only future conduct is controllable, and that only to the extent that we can infer future facts. Because of these ideas we can understand why Stephen accepts the importance of the "order of what is not as contrasted with what is susceptible of critical resolution at the empirical level" (Deely, 129). It brings clarity; it is a working example of inference. Things are neither destined nor undecided, as Stephen realizes with his questions.

"But can those have been possible seeing that they never were? Or was that only possible which came to pass?" As Stephen realizes these questions are "ipso facto not real questions, that is to say, are questions to which there is no true answer to be given."<sup>13</sup> The real questions are those

which concern the relationship of the present to future conduct.

The students in Stephen's class do not know the end of Pyrrhus, or anything about Pyrrhus, but in a Viconian perspective it is quite significant.

--End of Pyrrhus, sir?  
 --I know sir. Ask me, sir, Comyn said.  
 --Wait. You, Armstrong. Do you know anything about Pyrrhus?  
 A bag of figrolls lay snugly in Armstrong's satchel. He curled them between his palms at whiles and swallowed them softly. Crumbs adhered to the tissues of his lips. A sweetened boy's breath. Welloff people, proud that their eldest son was in the nave. Vico Road, Dalkey.  
 --Pyrrhus, sir? Pyrrhus, a pier.

Actually the figrolls and the response which plays with cleverness ("Pyrrhus, sir? A pier") repeats Cranly's attachment to figseeds and his own play upon the name of the kings of Belgium (P 229). Attitudes are repeated, attitudes which could be changed -- or at least should be changed. The significance, of course, is in its relation to the future -- the future of Ireland, or in Portrait, the future of Stephen -- but both have been made mere unrealities. The future is here (as in Portrait) a confused play upon a word as a thing and as a concept. Here, when Stephen asks "what is a pier?" he is given a name "Kingstown pier, sir" (U 24/25).

--Kingstown pier, Stephen said, Yes, a disappointed bridge.  
 The words troubled their gaze.

Stephen keeps their attention upon the material qualities of the sign, and surprises them with the relation it has with thought.

This is indeed difficult. But Stephen focuses their attention on the word as though-sign. Peirce discusses the distinction between words and ideas with reference to the material and the representative function of the sign:

The thought-sign stands for its object in the respect which is thought; that is to say, this respect is the immediate object of consciousness in the thought, or, in other words, it is the thought itself, or at least what the thought is thought to be in the subsequent thought to which it is a sign.

We must now consider two other properties of signs which are of great importance in the theory of cognition. Since a sign is not identical with the thing signified, but differs from the latter in some respects, it must plainly have some characters which belong to it in itself, and have nothing to do with its representative function. These I call the material qualities of the sign. As examples of such qualities, take in the word "man," its consisting of three letters - in a picture, its being flat and without relief. In the second place, a sign must be capable of being connected (not in the reason but really) with another sign of the same object, or with the object itself. Thus, words would be of no value at all unless they could be connected into sentences by means of a real copula which joins signs of the same thing. The usefulness of some signs -- as a weathercock, a tally, etc. -- consists wholly in their being really connected with the very things they signify. In the case of a picture such a connection is not evident, but it exists in the power of association which connects the picture with the brain-sign which labels it. This real, physical connection of a sign with its object, either immediately or by its connection with another sign,<sup>14</sup> I call the pure demonstrative application of the sign.

The students confuse the material qualities of the word "Pyrrhus" with its representative function. They cannot make a connection between the sign "and another sign of the same object or with the object itself." Their above answers show

their shifting from the sign to signs of a different object. Here in Nestor Stephen maintains his attention on the sign they provide and "another sign of the same object." The "real physical connection of a sign with its object . . . the pure demonstrative application of the sign" is presented: from pier to a question about what it is; from a particular example to a statement about the particular object. Of course, the "disappointed bridge" is a symbol of their problem in thought.

The representative function Peirce continues to explain:

Now the representative function of a sign lies neither in its material quality nor in its pure demonstrative application; because it is something which the sign is, not in itself or in a real relation to its object, but which it is to a thought, while both of the characters just defined belong to the sign independently of its addressing any thought.<sup>15</sup>

But a thought has "no existence except in the mind." The "logical comprehension of a thought is usually said to consist of the thoughts contained in it; but thoughts are events, acts of the mind. Two thoughts are two events separated in time, and one cannot literally be contained in the other." The problem Stephen's students have in understanding Stephen's thought thus becomes clear. The thought which is usually said to be made up of the thoughts it contains is actually the problem, as Peirce explains above. The word as idea does not contain the thought. "It may be said that all thoughts exactly similar are regarded as one; and that to say that one thought contains another means

that it contains one exactly similar to that other. But how can two thoughts be similar? Two objects can only be regarded as similar if they are compared and brought together in the mind."

This comparison and bringing together of two thoughts is not derived from immediate perception, but, as Peirce writes, "must be an hypothesis . . . therefore the formation of such a representing thought must be dependent upon a real effective force behind consciousness, and not merely upon a mental comparison."<sup>16</sup> Now we can understand the importance of mediation, or the representing thought. (The "disappointed bridge" is a symbol of the lack of "a real effective force of consciousness" in class, in Dublin, and in literary works.) It brings together two thoughts, whether the two thoughts are the material and the denotative application of a sign, or separated by person (as in Stephen's class), or time (the relation of different states of one person's mind), or both (as with Stephen and Bloom throughout Ulysses).<sup>17</sup>

Stephen comes to consider the "meaning of a thought" as "altogether something virtual."<sup>18</sup> The motion, or relation of different states of mind which has a feeling corresponding to motion, itself requires a third thought - the representing thought. "This property of the thought-sign [motion], since it has no rational dependence upon the meaning of the sign, may be compared with . . . the material quality of the sign."<sup>19</sup> (The motion need not be felt as the material

quality of the sign is felt.) Stephen makes the connection.

It must be a movement then, an actuality of the possible as possible. Aristotle's phrase formed itself within the gabbled verses and floated out into the studious silence of the library of Saint Genevieve where he had read, sheltered from the sin of Paris, night by night. By his elbow a delicate Siamese conned a handbook of strategy. Fed and feeding brains about me: under glowlamps, impaled, with faintly beating feelers: and in my mind's darkness a sloth of the underworld, reluctant, shy of brightness, shifting her dragon scaly folds. Thought is the thought of thought. Tranquil brightness. The soul is a manner all that is: the soul is the form of forms. Tranquility sudden, vast, candescent: form of forms (U 25-6/26-7).

"It" is literature. The connection between the hypothesis and the habit of expectation Stephen developed in Paris is quite a clever one, for there is in Ulysses no first cognition. Instead, in Ulysses, "cognition arises by a process of beginning, as any other change comes to pass."<sup>20</sup> The habit of expectation is required for Stephen's abduction in Telemachus, and the basis of it is provided here. We now know that Stephen was searching for a new way to write as he read in studious silence. The hypothesis in Telemachus brings together the separate ideas he has had about art. These ideas include what was not included in Portrait, but the ideas in Portrait about art also establish the general habit of expectations about art which Stephen carries with him as he ascends the stairs of the tower on the first page of the novel. The connection between the material and the thought-sign is in the fact that neither has a necessary rational dependence upon the meaning of the sign. The

process of meaning, of making a thought clear is thus one of making the virtual more determinate, through a presentation of interpreting thoughts. And when there is a rational dependence between the content of the thought and the thought, the complex thought is one which "the thought comprehends a thought other than itself."<sup>21</sup>

Entelechy is the name for the movement which is "an actuality of the possible as possible." The idea of entelechy, as discussed in Chapter Two, is connected with that of form, and the idea of power with that of matter. The "movement" or "development" of being in posse, or in germ, to entelechy, or realization (the perfected result of the process) is very similar to the movement of "a thought which comprehends a thought other than itself" or a "complex thought."

Stephen thinks "Riddle me, riddle me, randy ro./ My father gave me seeds to sow" (U 26/27), and we can see that entelechy is implicit in the image -- and in the answer which is "writing." Writing as material gives form to complex thoughts. Writing can be genuine Thirdness. Stephen has found in class that the hypothesis could very well work. Aristotle's theory, among the others he studied in Paris, makes it theoretically plausible. Nothing seems to deny the workability of the hypothesis.

We readers of Ulysses can use these ideas in various ways to further elaborate the novel. What is important here in this study, though, is the connection these ideas have

with the surprising phenomena which began the process of abduction on the first page of the novel. At this point the thought which Stephen has -- the conjecture -- is being made more definite. Simultaneously the reader can also be aware that Stephen is exhibiting the process of the novel.

Stephen "solved out the problem" (U 28/29) and his thoughts express the "first entelechy" or the working order while his own presence and thinking is "second entelechy" or "being in action." He thinks:

Across the page the symbols moved in grave morrice, in the mummery of their letters, wearing quaint caps of squares and cubes. Give hands, traverse, bow to partner: so: imps of fancy of the Moors. Gone too from the world, Averroes and Moses Maimonides, dark men in mien and movement, flashing in their mocking mirrors the obscure soul of the world, a darkness shining in brightness which brightness could not comprehend (U 28/29).

Stephen considers a kind of writing based on arrangement, muck like an algebra problem, but involving the algebra of a logic of relations. If "order is simply thought embodied in arrangement" (6.490), then the arrangement of a novel or work of literature can reveal the development of thought which is the thought of thought. In Circe, the hours of the morning, noon, day, and evening mime the above description of algebraic symbols: they bow to each other, exchange hands, traverse (U 576-7/561-2). Once again the hypothesis from Telemachus is made more determinate.

The problem Stephen solves is literally an algebra problem which his student, Cyril Sargent, has had trouble with. The problem is also that of the literary work: how

can the transcendental subject of cognition, and other nominalistic notions which have become entangled in the concept of narrator, for example, be solved -- how can the answer or sum or meaning of a work of literature be presented and "worked out" within the process rather than told?

The riddle mentioned earlier suggests the answer: writing. The material of writing itself can be seen as embodying the thought which, as Aristotle states, is "the form of forms." The following must be established in the material aspect of the "originary idea," and the "genuine Thirdness," which allows one to "see the operation of the Sign." The riddle Stephen presents his class has a conventional answer: "a fox burying his mother under a holly tree:

The cock crew  
 The sky was blue:  
 The bells in heaven  
 Were striking eleven  
 'Tis time for this poor soul  
 To go to heaven (U 26/27).

The answer Stephen uses in class is "The fox burying his grandmother under a hollybush." Stephen realizes that the "mother," or "originary idea," or "genuine Thirdness" must be "embodied" in the material aspect of writing. And to point to or indicate such a presentation, an icon of it must be included. Thus the grandmother. Of course, this icon has been related to Stephen's own position/meaning in the text, but the ramifications are part of the infinite series of the text.

A few moments later, during the solving of the algebra problem, he thinks of the love of a mother for her son (in Cyril's case, and his own): "Was that then real? The only true thing in life? His mother's prostrate body . . . . A poor soul gone to heaven: an on a heath beneath winking stars a fox, red reek of rapine in his fur, with merciless bright eyes scraped in the earth, listened, scraped up the earth, listened, scraped and scraped. Sitting at his side Stephen solved out the problem. He proves by algebra that Shakespeare's ghost is Hamlet's grandfather" (U 27-8/28-9). What the mother and the material of writing represent are real.

Stephen "buries" his mother, as in the riddle, and listens. The difference between what he thinks and what he says reveals the thought. And if we recall the functional, situational and symbiotic circle discussed in reference to a person's ability to express polysemantic meaning in the previous chapter, we can understand that from the one-in-other structure of meaning (of the situational circle he is in) he can look back upon the symbiotic circle of mother and child as a source of all possible meanings, as a source of a semantic encyclopaedia. He has found a way here to give material form to such an "encyclopaedia."

Stephen tells his class the answer is a grandmother, just as he tells his "friends" (before the beginning of the novel) that the answer to understanding Shakespeare's works is in solving how "Shakespeare's ghost is Hamlet's

grandfather." The difference in sexes fits the difference between the semantic and material aspect of writing. The similarity in that both are one generation removed from the object shows that Stephen has mastered the problem of how to generate the semantic and material aspects of writing. The grandmother and grandfather are icons of the movement of thought. They are the "logical interpretant" included in text.

Consider the following example of the logical interpretant, which in all cases involves the "would-be" or conditional mood:

Proceed according to such an such a general rule. Then, if such and such a concept is applicable to such and such an object, the operation will have such and such a general result; and conversely. Thus, to take an extremely simple case, if two geometrical figures of dimensionality  $N$  should be equal in all their parts, an easy rule of construction would determine, in a space of dimensionality  $N$  containing both figures, an axis of rotation, such that a rigid body that should fill not only that space but also a space of dimensionality  $N+1$ , containing the former space, turning about that axis, and carrying one of the figures along with it while the other figure remained at rest, the rotation would bring the movable figure back into its original space of dimensionality,  $N$ , and when that event occurred, the movable figure would be in exact coincidence with the unmoved one, in all its parts; while if the two figures were not so equal, this would never happen. . . . For the treatment of a score of intellectual concepts on that model, only a few of them being mathematical, seemed to me to be so refulgently successful as fully to convince me that to predicate any such concept of a real or imaginary object is equivalent to declaring that a certain operation, corresponding to the concept, if performed upon that object, would (certainly or probably, or possibly, according to the mode of predication) be followed by a result of a definite general description. (5.483-4; emphasis added)

And such is the case in Ulysses, or N, where the movement about the axis contains both figures of authorship. The movement results in a space of dimensionality of  $N+1$ . The extra generation in Stephen's model reflects the  $N+1$  space of dimensionality. The "predication" of such a concept is "equivalent to declaring that a certain operation, if performed upon that object, would be followed by a result of a definite general description." The operation is the process of thought. In Ulysses the Shakespeare theory, or object predicated, the hypothesis about the relation between the natural artistic process (or interpretant) and the material text (the sign) together cooperate to reveal the operation. Stephen thinks "it must be a movement then, an actuality of the possible as possible (U 25/26).

"Sitting at his [Sargeant's] side Stephen solved out the problem. He proves by algebra that Shakespeare's ghost is Hamlet's grandfather" (U 29/28). Both Shakespeare's ghost and Hamlet's grandfather are objects extrapolated from the text - the first from without, the second from within. They are equivalent imaginary beings. They have their existence due to the material nature of writing. The answer to Stephen's problem of authorship is found in the model of his problem provided by the Shakespeare's ghost = Hamlet's grandfather equation.<sup>22</sup> Constructing the model thus brings Stephen to the fact of written words.

After this thought or insight has been achieved by Stephen, the sensory details of Telemachus function as a

"second level of enunciation, where it becomes possible to retain meaningful remarks about meaning."<sup>23</sup> The "second level of enunciation" is what Benveniste calls the major strength of language -- its ability to simultaneously articulate the semiotic and semantic modes of expression. The sensory details of Telemachus now reflect the value of the hypothesis. We have such examples laden with evaluative judgments:

His [Deasy's] eyes open wide in vision stared sternly across the sunbeam in which he halted  
(U 33/33).

--History, Stephen said, is a nightmare from which I am trying to awake.

From the playfield the boys raised a shout. A whirring whistle: goal. What if that nightmare gave you a bad kick?

--The ways of the Creator are not our ways, Mr. Deasy said. All history moves towards one great goal, the manifestation of God.

Stephen jerked his thumb towards the window, saying:

--That is God.

Hooray! Ay! Whrrwheel!

--What? Mr. Deasy asked.

--A shout in the street, Stephen answered  
(U 35/34).

--Ireland, they say, has the nonour of being the only country which never persecuted the jews. Do you know that? No. And do you know why?

He frowned sternly on the bright air.

--Why sir? Stephen asked, beginning to smile.

.. .. .  
--She never let them in, he cried again through his laughing as he stamped on gaitered feet over the gravel of the path. That's why.

On his wise shoulders through the checkerwork of leaves the sun flung spangles, dancing coins.

(U 37/36)

The sense-objects in these passages have been previously mentioned in Telemachus. They function in Nestor from a

higher level: the examples show how the sunlight not only contrasts with Deasy's "vision" but also functions to judge him. The value of the hypothesis is visible and is considered. This is most clearly shown in the final sentence of the episode: "On his wise shoulders through the checkerwork of leaves the sun flung spangles, dancing coins." The coins are the exchange value possible in the system of language which Stephen considered in Telemachus. Originally Stephen observed the sun mocking the mocker, and this surprise (in a connection between the natural and artistic processes) altered his "way of seeing." Nestor functions to make the "value" of the hypothesis clear. Thus, Stephen is further led to its acceptance.

We readers of Section I of Ulysses have been experiencing Stephen's sensations, sensations which contain the basic hypothesis ('objective outline') of the whole novel. In Nestor the previous experiences of Stephen are placed in a frame (that of the lesson, the catechism), and the hypothesis is considered in a more conscious, serious context.

The frame of Proteus is the 'soliloquy.' Because of the frame itself the reader can simulate the important awareness Stephen has about sensation (based on his sensations). That which was missing in the previous two episodes is present in Proteus: Stephen's cognizance of the relation between features of the sensory material (part of the natural process given in Telemachus) and features of a new kind of writing

based on the 'natural process.' Stephen becomes aware that language is cognition-dependent and functions in the absence of sense-objects. Put in another way, Stephen realizes the "unreal component of semiosis" is language itself.<sup>24</sup>

As Stephen walks along the shore of Sandycove his own linguistic behavior takes him to Paris. The first time he thinks of Paris he thinks of Kevin Egan, and Kevin Egan's son Patrice, imitating someone's walk and carrying money from his mother in his pocket. The latter thought of his mother interrupts the progression of memories. He thinks of Buck Mulligan's aunt's comment. After recalling a sarcastic verse about the aunt, he returns to Paris, once again, in his thoughts.

This time when Stephen constructs a narrative he is motivated by the "principle" of the sun. The sun is used to bring the absent city to mind. It is like a narrator. The sun here, the sun there in Paris - the connection via the sun allows for a retrospective arrangement and a discovery:

His feet marched in sudden proud rhythm over the sand furrows, along by the boulders of the south wall. He stared at them proudly, piled stone mammoth skulls. Gold light on sea, on sand, on boulders. The sun is there, the slender trees, the lemon houses.

Paris rawly waking, crude sunlight on her lemon streets. Moist pith of farls of bread, the groggreen wormwood, her matin incense, court the air. Belluomo rises from the bed of his wife's lover's wife. . . .

Noon slumbers. Kevin Egan rolls gunpowder cigarettes through fingers smeared with printer's ink. . . . His breath hangs over our saucestained plates, the green fairy's fang thrusting between his lips. Of Ireland, the Dalcassians, of hopes, conspiracies, of Arthur Griffith now. To yolk me as his yolkfellow, our crimes

our common cause. You're your father's son. I know the voice. . . .

The blue fuse burns deadly between hands and burns clear.

. . . . .  
Spurned lover. . . . In gay Paree he hides, Egan of Paris, unsought by any save by me. . . . He takes me, Napper Tandy, by the hand. . . . Weak wasting hand on mine. They have forgotten Kevin Egan, not he them. Remembering thee, O Sion (U 43-5/43-5).

Stephen identifies with Kevin Egan's exile, his attempts to be a radical reformer, a revolutionary. And as Stephen thinks of himself as a reformer-revolutionary (like Napper Tandy) he finds that his thoughts have not been related to physical objects around him:

He had come nearer the edge of the sea and wet sand slapped his boots. The new air greeted him, harping in wild nevers, wind of wild air of seeds of brightness. Her, I am not walking out to the Kish lightship, am I? He stood suddenly, his feet beginning to sink slowly in the quaking soil. Turn back (U 44/45).

Simultaneously, Stephen expresses his own revolutionary intent in his own endeavours; demonstrates the successful use of the "sun" as a principle governing his narration; and has discovered the fact that language functions in the absence of sense-objects around him. The "new air" harps in "seeds of brightness."

Stephen has tested the hypothesis and found an artistic principle which can match his revolutionary intent. The hypothesis is dependent on the fact that language is cognition-dependent. Words used in a possible text can be divorced from the narrating "presence." This discovery is revolutionary in that it can allow language to signify despite the presence of its source in another place, or the

absence of the source altogether. Stephen (or any writer, such as Joyce) can be 'absent' and let language represent the problems in our post-linguistic systems. Stephen is led to believe in the hypothesis. Stephen has a new basis for art: "Turning, he scanned the shore south, his feet sinking again slowly in new sockets" (U 44/45). His discovery could not be more explicit. "New sockets" suggests a new angle of vision that is firmly rooted in the 'real' or 'objective' world and equally intent on making that position clear.

Stephen remembers the hypothesis: the sun is an artistic device: the natural process is like the artistic process. "Through the barbicans the shafts of light are moving ever" (U 44/45). In Telemachus: "Two shafts of soft daylight fell across the flagged floor from the high barbicans: and at the meeting of their rays a cloud of coalsmoke and fumes of fried grease floated, turning" (U 11/13). There are two shafts and a window: the window is the separation between inside and outside and the element which allows them to be bridged. The sun as cause and sun as effect are both required; thus there are two shafts. In abduction one thinks from effect to cause. They are a form of parallax which can measure and highlight changes in a relative universe. The sunlight itself stands for a new kind of language use -- language use which marks the effect of what is presented as it relates to what has come and will come -- language as it subsumes representation for the purposes of signification. It allows for a perspective so

radical that it can change the way we "see" things: a "new order" can be expressed based in its relationships -- relationships to language, and to language users who may or may not be aware of the signifying potential of language (as opposed to its representative potential).

Language used as a set of signifiers can be awesome in its creative critical effect. Revolutionary and esthetic: "These heavy sands are language tide and wind have silted here. And there, the stoneheaps of dead builders, a warren of weasel rats. Hide gold there. Try it. You have some. Sands and stones. Heavy of the past. Sir Lout's toys. Mind you don't get one bang on the ear. I'm the bloody well giant rolls all them bloody well boulders, bones for my steppingstones. Feefawfum. I z mellz de bloodz odz an Iridzman" (U 44-5/45). Stephen perceives language as grains of sand as a set of signs which can be deployed for his purposes. Language is heavy from its past use, and that too can be functional: language can be shown in relation to behavior and in its relation to social structures at any historical, national, or geographic, period; from any strata of society from the point of view of an insider or outsider. Language of prose and poetry from the past ("the stoneheaps of dead builders") can be used as a model through which the "mirror of the mind" of the language builder can be deleted, as shown above. Language has infinite means to show the value of signification; it can not only represent but create and open up new possibilities as it makes distinctions

between what is 'real' or cognition-independent and what is 'unreal' or cognition-dependent. Language can itself be an experience.

One who understands this about language can pierce through to the fundamental issues of understanding itself. It can be both 'boulders' and 'bones': a structure for a system of signification and the reacting life within the system. Within a system where language is used as an object, it can be used (despite its absence as an object-language and presence in a relation) to react against language use, language systems, the effects of language systems and to reveal itself as a creative, meaningful subject (experience) itself.

Proteus in Homer's Odyssey is not only the shape-changer who can take all forms, but also the one who tells Menelaus how to break the spell that bind him. Proteus in Joyce's Ulysses is language. Language can take all forms (object, interpretant, sign) and can itself reveal how to break the spell that bind us. Stephen discovers from his own language use that language is a sign system that can be used as a tool to reveal how to break the subjective and objective problems we have. "Signs on a white field": language is not anything less than a means of signification.

Signification places representation within its process. Stephen thinks of Berkeley, the Bishop of Cloyne: "Signs on a white field. Somewhere to someone in your flutiest voice. The good bishop of Cloyne took the veil of the temple out of

his shovel hat: a veil of space with coloured emblems hatched on a field. Hold hard. Coloured an a flat: yet, that's right. Flat I see, then think distance, near, far, flat I see, east, back. Ah, see now" (U 48/49). Berkeley argued that what we see is cognition-dependent, the language of God.

Stephen understands the potential of the cognition-dependent physical reality Berkeley writes about. The potential is an awareness of our ability to see our relationships to physical and non-physical things from a 'higher' perspective.<sup>25</sup> Berkeley meant this 'higher perspective' to be a religious one. Stephen thinks of how Berkeley took the "veil of the temple" out of his hat. The 'veil of the temple' is a boundary between the 'holy' place and the 'most holy' place in a sanctuary. This boundary derives from the cognition-dependent nature of reality. Berkeley's "veil of space" or belief that we see a cognition-dependent reality leads to an awareness that there is a cognition-independent reality whose creator and being is God.<sup>26</sup> Such an understanding is the keystone of Berkeley's faith in the potential of man to understand man's relation to God. We cannot "know" God in as much as we cannot cross the boundary between the 'holy' place and the 'most holy' place; but we can understand the importance of man's cognition-dependent way of knowing. To Berkeley this means man can creatively and productively improve and understand man's relationship to God, the relationship between created

and creator. Man can read the signature of God in what he sees, but cannot see God; man can read the signs of God in relationships between things, but cannot actually or physically touch God in these relationships.

The same is true of abduction, wherein the cause is shown in its effects. The Play of Musement brings proof that there is a creator.<sup>27</sup> Both Stephen and Peirce realize that the veil of the temple is cognition dependent and can be used artistically and scientifically. The "veil" or boundary can be represented and used.

Stephen uses Berkeley's ideas. Stephen understands that in literature and in life any object can be used for understanding, can be used as a sign of the creator/created relationship. Berkeley's whole philosophy, Stephen says, is cognition-dependent - taken out of his "hat" or 'head.' And as such it is an example of the potential understanding that is possible to humans. The "emblems hatched on the field" are products of such understanding, bounded or limited only by man's cognitive ability and imagination; and having been derived from man's cognition-dependent sight (thought) they are "hatched" on that same field. These "emblems" can be creations of physical reality by God, or creations of representations in a signifying whole by man. In art, the same relationships have the artist, present only in the thought system. The artist is never directly "known" or "physically" present, but is there "implicitly." The material words before they are apprehended linguistically are

like the objects in the real world before they are apprehended. The cause is found in the artist/God.

Stephen "understands": "Ah, see now" (U 48/49), with a pun on "see." "Hold hard. Coloured on a flat: yet, that's right. Flat I see, then think distance, near, far, flat I see, east back. Ah see now. Falls back suddenly, frozen in stereoscope. Click does the trick." The "click" is the end-means accommodation, the rhythm in a cognitive system. Abduction involves such a click, it is what allows the near and far, future and present to be perceived as cases of a law. The topo-sensitive details in Telemachus are examples. A topo-sensitive detail is "frozen in stereoscope," or double perspective.

"You find my words dark. Darkness is in our souls, do you not think?" (U 48/49). Stephen here is thinking of the "elevation of discourse."<sup>28</sup> Something there is that doesn't love a sign (to paraphrase Frost). We'd rather read representations and keep the "elevation" of language out. According to Deely, there is an "ideological reluctance to abandon clearly-cut materialism," which is countered by the "mysterious 'elevation'" that "physical marks, sounds or movements, when functioning in discourse, undergo . . . during which they exist in a higher way than is proper to them as observable, physical occurrences."<sup>29</sup> Stephen puts it succinctly: "Darkness is in our souls." He may represent the process of thought and may use topo-sensitive details, but they may not be seen as "emblems." Stephen says in a

'flutier' attempt, "Our souls, shamed by our sins, cling to us the more, a woman to her lover clinging, the more the more"-language can be used to expiate or express the shame (as in Circe).

As Stephen writes, he finds a way of making his shadow endless ("His shadow lay over the rocks as he bent, ending. Why not endless till to the farthest star? [U 49].) "I throw this ended shadow from me, manshape, ineluctable, call it back. Endless would it be mine, form of my form?" Just as he manipulates the shadow by leaning near the sun or away from it, he can use the principle of the sun -- his hypothesis to reveal or conceal the thought, or thought of thought. He contemplates the independence of the creator. The process of abduction has led to the form of argument which is the basis of what must yet be demonstrated (and which thus leads directly into section II). The hypothesis accounting for the surprising phenomena has been accepted "from a mere expression of it in the interrogative mood . . . up through all appraisals of plausibility to uncontrollable inclination to believe" (6.469).

The sense-objects in Section I of Ulysses are both Stephen's sightings of them and the things themselves, in the context of the book. We experience the "ineluctable modality of the visible: at least that if no more." We get "thought through [Stephen's] eyes." Sense-objects exist as signs upon a field. They are "hatched" from our sensations of them. They are perceived in manifold relations with other signs and

bring about an awareness that there is "more" to our cognition-dependent reality than our perceptions.

Let us take a final look at Section I's primary function: the representation of abduction through sense-details and through thought. An overview of the three episodes taken together reveals an interesting, distinguishing characteristic: all written material that passes through Stephen's hands are rendered as sense-objects filtered through Stephen's mind -- as are all the sense-objects. There is consistency and progression in the depiction of objects seen or "sensed" by Stephen. We never receive the letter Stephen reads in Nestor. Deasy's letter (or an excerpt) could have been placed on the page as the letter which was read. Instead we read Stephen's sensation of the words (has he changed Deasy's "important" to "allimportant" because the word and concept all is 'important' to him? - or has this been the correction Deasy had been making? We never are allowed to discover the error or correction).<sup>30</sup> Anything more than Stephen's sensation would destroy Stephen as a reactant to the sense-objects and would make Stephen into a person whose thoughts and actions could be judged independently. In short, placing the letter on the page would make Stephen into a typical character by breaking our attention from the process of abduction. Stephen would be non-sensing and the reader would be sensing the words -- a reader could then evaluate Stephen's reaction to the letter.

In Proteus Stephen writes a poem. But we are not given the words as words. We find the poem in Section II. In Section I we experience Stephen's sensations, his cognition-dependent experiences of objects. Abduction is of the nature of sensations (2.711). In Telemachus the objects are natural or voiced or thought: they are cognition-dependent. The frame of Nestor allows for Stephen's sensations to be stressed in his orientation to a situation made 'new' because of his experiences in Telemachus. In Nestor Stephen, looking at a framed picture in Deasy's office, "goes through" the frame and becomes one of the people shouting in the crowd, and the action is an icon of the function of the episode. We become more conscious of the thought of abduction because of the episode's different construction. We learn the value of the hypothesis. Once again the frame of Proteus itself heightens Stephen's sensations; only because we are in the construction of Stephen's mind do we also sense the discrepancy between his cognition-dependent actions and physical reality. This difference allows the process itself to be represented as an independent creation, without denying the material aspect of the representing or represented.

The process of semiosis transcends the division into mind-dependent and mind-independent things. The functioning of cognition, or semiosis, in Section I of Ulysses also transcends this division. Stephen's own sensations in Telemachus make no distinction between mind-dependent and mind-independent things. Stephen responds to the

representative element in Nestor (in History, literature, class situations as they represent past situations) and realizes it is traditionally perceived as a transcendental relation. Stephen becomes aware that signification is always an ontological relation. In Proteus Stephen realizes that signification is a "real" relation (his words/thoughts of Paris, for example, are real though they are distinct from physical reality). What exists outside Stephen's mind in Proteus has signatures which can be read. The signatures of all things Stephen reads are formal signs, the "species impressa, or enlarged presentative forms which intervene in knowledge," which Aquinas emphasized are not "objects of our knowledge, but pure means there to." The scholastics called these presentative forms objectum quod, or "mental objects by which knowledge takes places," as previously noted. The hypothesis in Telemachus has led to this ability to read "the pure means" of knowledge. The presentation of the process of abduction allows for the end of that knowledge -- a demonstration of the hypothesis.

In Section I semiosis is shown to transcend the division into what is dependent upon mind and independent of mind. Through this process Stephen is brought to an understanding of signification. He understands the difference between representation and signification is thought which is expressed as thought, reflective thought. In Section I we experience the idea and the sensation of the idea involved in Abduction. We, like Stephen, are brought to an acceptance of the

hypothesis, though in abduction the hypothesis is just that: unexplicated and undemonstrated. Section I is Stephen's "thought through [his] eyes." A reader may speculate upon the relation between his thought and the work as a whole, and if so, the conjecture is confirmed even more.

The value of Section I is not made current until the next sections, when the reader must apply the principles of signification to the discourse. But already we can understand why Stephen seems to usurp the place of the narrator and why the narrator seems to have been usurped by something even larger, as is suggested in current critical remarks about the novel. We have discussed how this is accomplished. Why Joyce would be concerned with presenting this "awareness" about the potential of signification (when differentiated from representation) is demonstrated in the rest of his text.

ii

Section II of Ulysses is deduction, an "examination of the hypothesis, and in mustering of all sorts of conditional, expential consequence which would follow from its truth." Section II of Ulysses emphasizes the marks on the page as marks on the page. The objective of the discourse in Section II is to present signification, not to consider its potential but to present or demonstrate the hypothesis of Section I. This process requires that the material aspect of the sign be foregrounded.

Section II begins and a reader is placed immediately within deduction (as a mode of inquiry) and the cognitive level of perception:

Mr. Leopold Bloom ate with relish the inner organs of beasts and fowls. He like thick giblet soup, nutty gizzards, a stuffed roast heart, liver slices fried with crustcrumbs, fried hencod's roes. Most of all he like grilled mutton kidneys which gave to his palate a fine tang of faintly scented urine.

Kidneys were in his mind as he moved about the kitchen (U 55/55).

The first instance of perception conflation (wherein the distinction IS MISSING between what is 'real' and what is 'unreal' - or what is a 'word' and what is a 'thing' - or what is a 'sign' and what is a 'representation') confronts the reader in the first sentence. "Mr. Leopold Bloom ate with relish the inner organs of beasts . . . ": is "relish" adverbial or tart? The position of the word in the sentence humors us into a new kind of awareness about this new information, different in content and in expression than Section I. The series of items, as in a menu, appetizingly modified, ends with "urine." A reader must proportion what is an 'objective' adjective with what is clearly Bloom's 'subjective' taste.

The image of kidneys floating in Bloom's mind distinguishes the two stages or levels of the novel. "Kidneys were in his mind as he moved." What is in Bloom's mind and Bloom's mind as a thinking organ are given the same ontological status. In perception, there is no distinction made between relations and objects. Cognition-dependent

relations (which may be 'real' or 'imaginary' in relation to reality) and cognition-independent relations are perceived as equivalent. And the reader is eased into the proportioning activities characteristic of perception. These activities of perception have the effect of emphasizing the expression system and, somewhat, separating Bloom from the expression system, whereas in the first section Stephen was not separated. There is no example here similar to that gurgling which we discussed in Telemachus. In short, the material in Section II is apprehended as if it were an application of the thoughts in Section I. This defines the process of deduction.

In Calypso, episode four, language is perceived as an object, an object which has reference to a new context.<sup>31</sup> "Relish" makes 'sense' in context (after distinguishing its status as a word from its status as an activity.) Milly's letter to her father is given in full - we can read the words the character reads for the first time in the novel. (Bloom first skims it, then reads it; later we are told he is re-reading it /U 62/ , 65-6/ .) And at the end of the episode, Bloom reads the story by Philip Beaufoy, Matcham's Masterstroke, during a 'quick neat' bowel movement, then wipes himself off with the story. Language becomes a utilitarian object.

But in a larger sense, Calypso as a whole demands that reader establish relations between its discourse and the previous episodes. In Calypso we are encouraged to relate

the episode about Bloom to Section I of Ulysses. The status (or function) of the episode in relation to what has come before is presented to the reader gradually. Bloom's sighting a cloud and Stephen's sighting a cloud (the presence and absence of sun causing similar positive and negative reactions), and the cloud itself are brought into a reader's mind. Later Bloom thinks of himself as an artist. We naturally think of Stephen. The time of day is the same. Bloom turns the corner after sighting the cloud, and we read "quick warm sunshine came running from Berkeley Road." The allusion to Proteus's Bishop of Cloyne (whose name now marks location) is followed by a description of the sunlight related in the language of Proteus: ". . . swiftly, in slim sandals, along the brightening footpath. Runs, she runs to meet me, a girl with gold hair on the wind." (U 61/61). The hypothesis is used in section II in a new context. Explication of the hypothesis is underway.

An "active construction" is required by the reader of Section II of Ulysses. The web of relations of physical objects from Section I are passed through a reader's mind: they are remembered, evaluated, synthesized, estimated, imagined. Deduction accounts for these icons and indexes of the original section of the novel. What occurs is a simple and quick activity. Section I provides the "sensory core" of information for these relations. Section I provides the hypothesis which is here being examined in terms of its experiential consequences. These relations are established

whenever we notice a difference in the tone, length of a series (such as the five items of food in the first paragraph of Calypso), type of detail (those which express the "unexpressed" and loosen, in Stephen's language, the 'soul's shamewounded' clinging to materialism: the "urine" taste, the defecation, the examples are endless and functional), and so on. As this occurs the reader is responding to the information about Bloom at a different level and type of cognitive activity: the reader 'uses' the sensations and hypothesis from Section I to evaluate and organize the material in Section II.

The text itself insists we make these connections. If we think for a moment, the two Sections and emphasize the potential and the actual; they place the reader in the position of Muser who considers ideas and things, with primary emphasis on causality. As Peirce puts it, abduction must affect deduction.

A meeting of Stephen and Bloom, which is expected as early as episode four, would return the reader to the level of sensation and would destroy the deductive process. This does not occur; Stephen and Bloom meet briefly in episode thirteen -- after ten episodes in Section II. The non-meeting forces the reader to further consider the consequences of the hypothesis. And when they are together in Oxen of the Sun, language seems to have usurped the plot, for we never do receive a conversation between them as it 'really' occurred.<sup>32</sup>

Throughout Section II the reader must proportion Stephen's absence with Bloom's presence to balance the expectation that they will meet with what is occurring. In Calypso (episode 4), the absent letter t in the word hat ("ha ") is an icon of this. It begins the sharp focus on language as object and becomes an icon of Stephen's absence. The next episode finds Bloom reading a letter from a correspondent named Martha, who has added an extra letter l in what should have been spelled w-o-r-d: "I called you naughty boy because I do not like that other world" (U 77/76). Although much has been made of the substitution of world for word as a symbol of the text as a whole, the added letter is an index of the proportioning a reader must make for Bloom's presence in an additional episode (where a meeting has been expected). In Hades, the sixth episode, Simon Dedalus rides in the carriage with Bloom and other to attend Dignam's funeral: Bloom spots Stephen and mentions it to Simon. Reader expectations of a meeting between Stephen and Bloom are heightened.

As the expectations increase, more proportioning occurs. The man in the macintosh coat at the funeral becomes (for Haynes the reporter due to word object confusion once again) Macintosh, who "becomes invisible" (U 112/110) or disappears. Stephen and Bloom both appear in the same place in Aeolus, but they don't meet at the press. In Lestrygonians an icon or image of the proportioning activity itself is given. The relation of absence and presence meaningful as reader knows

by now, at least at the level of character interaction. The icon of relation is imaged in "U.P.: up." (U 158/156) The related terms, separately, contain no 'meaning' at a lexical level. Together they spell up, which is meaningful at a lexical level. But the meaning itself in context is held in suspense. Bloom happens upon Mrs. Breen:

She took a folded postcard from her handbag.  
 --Read that, she said. He /her husband/ go it this morning.  
 --What is it? Mr. Bloom asked, taking the card.  
U. P.?  
 --U.P.: up, she said. Someone taking a rise out of him. It's a great shame for them whoever he is.  
 --Indeed it is, Mr. Bloom said.  
 She took back the card, sighing.  
 --And now he's going round to Mr. Menton's office. He's going to take an action for ten thousand pounds (U 158/156).

The relation is a legal matter. Here "paternity" in the sense of who wrote the letter is "a legal fiction" (U 207/204), as Stephen will later remark about literature. The meaning of the relation of two letters is a microcosm of the meaning of the relation between Stephen and Bloom, the meaning of the relation of an author to a written text (in Scylla and Charybdis), and the meaning of the relation of words in Ulysses to the 'real world.' Each relation involves the community: of Dublin, of the text, of literature to society in an abstract and in a present sense. And each has been implicit in abduction. Here they are materially given.

Thousands of correspondences exist between letters, words, phrases, sentences, contexts, events, and themes that keep a reader aware of relations that exist between Stephen

and Bloom (despite their non-meeting), and between Section I and Section II of Ulysses. A reader is placed at the "perceptual" level vis a vis the text. We have just reviewed the manner in which letters of the alphabet are related to the presence and absence of Stephen and Bloom in the first five episodes of Section II. Letters are also used in other roles in other chapters, but the point that a proportioning occurs at the perceptual level with icons of absence and presence has been established. The proportioning occurs at all levels; the proportioning is related to language perceived as an object. A reader experiences the operation of language as a tool of signification. This operation or process becomes more extensive, until the frame of an episode shows language as a modeling system (Sirens) -- then the modeling behavior is shown as it affects society (Nausicca, Oxen, Circe).

This use of icons, indexes, and symbols is the staple of deduction. Deduction "invariably requires something the nature of a diagram; that is, an 'Icon,' or sign that represents its object is resembling it. It usually, too, need 'indices,' or signs that represent their objects by being actually connected with them. But it is mainly composed of 'Symbols,' or signs that represent their objects essentially because they will be so interpreted" (6.471). Thus the proportioning mentioned above is implicit in the operation of Deduction. Notice the absence of the role of a traditional narrator whose presence guarantees "meaning."

Here the demonstration of the hypothesis requires a different mode of thinking, but one based on the previous section. The material of the text (and the thought-sign) guarantees "meaning."

The episodes of Section II will be discussed in the groups of three as they appear in the following table. Particular characteristics of each episode as they meet the stated relation will be given. We will thus follow the process of semiosis in Section II.

This table represents only one, very basic, means of discussing Section II as it demonstrates the experiential consequences of the hypothesis in Section I. First the language is emphasizedly stressed as an object, which may or may not have a "real" signified. This is a major result of the connection between the natural and artistic process in the hypothesis. Because both are materially existent (as is the sun), various effects (revolutionary) are possible. Language can be shown as a material connection (between things in time); and it can be shown as an object in itself (with or without a real signified). This potential of language is rarely used in fiction because the material aspect of language is either ignored to stress the plot or made functional in terms of sender-receiver relationships outside the text.

The next set of relations continues the implications of the hypothesis and demonstrates the material aspect of language perceived as a modeling system in its own right.

## Deduction in Section II

episode	relation	category of relation
4. Calypso	language is object but referential	
5. Lotus Eaters	language is object but reference can be "unreal"	language as object and relation
6. Hades	language is non-physical relation between things in time	
7. Aeolus	language as form of experience (mediative of totality) when deployed as a sign system	
8. Lestrygonians	language as form of experience in unsuccessful social interaction	language as a secondary modeling system
9. Scylla and Charybdis	language as shaper of consciousness	
10. Wandering Rocks	language as indifferent to life, an ontological relation in signification	
11. Sirens	language as a signifying system of other signifying systems	language as post-linguistic structure itself
12. Cyclops	language as a self-reflexive signifying system	
13. Nausicca	effect upon 'out-group' experiences	
14. Oxen of the Sun	effect upon 'in-group' experience of process	language as post-linguistic structure as affecting
15. Circe	effect as 'unreal element of semiosis'	human behavior

Then the next progression demonstrates language's material aspect as a post-linguistic structure. Here, of course, the signifying potential of language as a form is shown. Finally the effect of language in these relations is considered. Many other methods of describing this section of the novel are possible. We are only concerned with establishing the fact that deduction exists in this present work. These relations can keep our attention upon deduction and the apparatus available within language - functioning (of a cognitive system) that makes it possible.

Language as Object and Relation (episodes 4-6, or "Morning")

In Calypso language is seen as both an object materially present and as an indicator of something it represents: referential and ontological, representation and sign. "Relish" is both in the first sentence, as we have seen. As object it is a position in a sentence (object of adverbial prepositional phrase); as reference it describes the manner in which Bloom, generally, eats various specific foods. Together they are humorous because of the two levels from which the word can operate. The error of the reader thinking of relish as a condiment has thus been programmed into the syntax; the error (or recognition of possible error) is what makes the reader become conscious of syntax, or words as position-fillers of a sentence. Recognizing the humor or cleverness of the sentence requires that the reader proportion the word as object and the word as a description of Bloom--as referential.

In addition to the other examples already given of words and letters perceived as both objects and as references to 'real' things in the fictional world, the conversation between Bloom and Molly is replete with examples:

--What a time you were, she said [Bloom as full of fun, and humor: "a card" in another idiomatic expression, as opposed to how long he has been gone from the room] (U 63/63).

Following the pointing of her finger he took up a leg of her soiled drawers from the bed. No? Then, a twisted grey garter looped around a stocking: rumped, shiny sole.

--No: that book (U 63-4/63).

--Show here, she said. I put a mark on it. There's a word I wanted to ask you.

. . . She reached the word.

--Met him what? he asked.

--Here, she said. What does that mean? (U 64/64)

The "word" is pointed to as a word and what Bloom sees may be either the right word (and "met him what" transcribes his difficulty in pronunciation) or the wrong word/place in the book (Bloom may have looked at the words a line or so above where she was pointing since she is in bed and he is standing above her). But the word is considered as both object and reference by the characters themselves. Metempsychosis. "'O, rocks! 'she said. 'Tell us in plain words.' He smiled, glancing askance at her mocking eye. The same young eyes," (U 64/64). And as Bloom thinks of a response he also think of "the first night after the charades. Dolphin's Barn," then he "turned over the smudged pages" and treats the illustration as an object by saying hello to it (or to the

word Ruby in the title when he reads: Ruby: The Pride of the Ring.) He looks at the book "fierce italish with carriagewhip. . . . Sheet kindly lent. . . . Cruelty behind it al. . . . Had to look the other way. . . . Bone them young so they metempsychosis. That we live after death. . . ." (U 64/64). As Bloom's thoughts include both thoughts, words for objects, words as words to be explained, the reader becomes accustomed to words as objects and as references to real objects.

"The reader becomes accustomed" to the referential and ontological status of language in Calypso. How many readers read on, assuming there is a direct reference for the word, appreciating this perceived 'cleverness' of the text, feeling comfortable with the multitude of examples of the double-take--punning--involved with levels of language use? We all do at some point. And it is this conditioning which is challenged even further in the next episode.

Lotus-Eaters challenges the referential status (mimetic function) of language. Language is still brought to our awareness as language (object). Of course the 'frame' of the episode itself, with its grid demanding the use of the language of flowers, a different color organ, technic, and so on, reinforces this awareness of language as object. We remember previous references to the added l in Martha's letter which is given in the episode. But even letters' reference changes: "I. N. R. I.? No: I.H.S.," as Bloom

reads, and revises, as he looks at the priest's chastible (U 81/80).

And the writer of the letter Bloom reads may be 'known' or 'unknown.' Martha is a pseudonym, as is Henry Flower. The latter is Bloom--but who is Martha? Once again the referential status of language is extended to include the 'unreal.' Martha is possibly a burnt-out short story writer eeking out a living writing love letters for a serial letter company. Readers of Ulysses in 1922 would be familiar with the situation, in real life and in fiction. Eleanor Hallowell Abbott wrote a novel based on a man's subscribing to a serial letter company upon reading the following:

Comfort and entertainment Furnished for Invalids,  
Travelers, and all Lonely People  
Real Letters  
from  
Imaginary People.

The circular suggests subscribing for "Letters from a Japanese Fairy. Biweekly. . . . Letters from a Gray-Flush Squirrel. Irregular. . . . Love letters. Daily (Three grades: Shy. Medium. Very Intense.)"<sup>33</sup> The novel, Molly Make-Believe, centers around the action of a male subscriber taking the chance of meeting the "imaginary Molly" who may be a man or woman, a person of any race or religion. Bloom connects Martha with Molly: they may both be having their

menstrual periods. "Such a headache. Has her roses probably. . . . Or sitting all day typing" (U 77/ ).<sup>34</sup>

Bloom may not know the 'real' name of Martha, or her sex. Fakery is in his mind as he associates Martha's name, freely: "Martha, Mary. I say that picture somewhere I forget now old master or faked for money . . ." (U 78/ ). Bloom again brings the idea of fakery up (in relation to the letter)<sup>35</sup>: a reader may make an association with the text: what is fake and what is real?

Language is still perceived by a reader as an object. In fact, such perception of language as an object relieves the pressure of wondering about whether the reference (of the word-s) is 'real' or 'imaginery.' Bloom may or may not know who Martha 'really' is. Martha's letter may have been written by a master (who knows Bloom, we know Bloom likes this kind of content because Molly showed him the same kind of content as she flirted with him under the possible pretext of asking for the meaning of a word) or by a 'fake' (someone who writes this as pulp fiction for money). The whole situation is a symbolic sign of a person's (reader's) relation to the Creator who remains independent of his/her creation.

The reference of words within the context of characters is thus open rather than closed and encourages the process of deduction. Even the characters mistake references. The famous confusion in Lotus Eaters, when Bantom Lyons takes

Bloom's words to mean a horse rather than Bloom's action is a microcosm of how reference confusion becomes part of the plot of the novel.<sup>36</sup> Bantom Lyons asks to see the newspaper which Bloom holds (a paper brought as a prop for his role as letter-receiver); he wants to "see about that French horse that's running." But Bloom responds to the smell -- Lyons needs to use Pears soap. The following is classic comedic confusion based on reference confusion:

[Lyons] rustled the pleated pages, jerking his chin on his high collar. Barber's itch. Tight collar he'll lose his hair. Better leave him the paper and get shut of him.

--You can keep it, Mr. Bloom said.

--Ascot. Gold cup. Wait, Bantam Lyons muttered. Half a mo. Maximum the second.

--I was just going to throw it away, Mr. Bloom said.

Bantam Lyons raised his eyes suddenly and leered weakly.

--What's that? his sharp voice said.

--You can keep it, Mr. Bloom answered. I was going to throw it away that moment.

Bantam Lyons doubted an instant, leering: then thrust the outspread sheets back on Mr. Bloom's arms.

--I'll risk it, he said. Here, thanks (U 85-6/84).

Reference confusion within these lines indicate the reader's own need to attend to context to determine what the words mean. Lyons responds to Bloom's offer to keep the paper by returning it. Bloom doesn't respond to Lyon's remark about the French horse or the other horses that are running because

he is thinking about pears soap, barbers itch--aspects of the speaker rather than his words' references. Lyons eventually bets on a horse "throw it away," loses his money and blames it on Bloom -- who is accused of making a boodle in Cyclops. The problem becomes public and creates a false image, and a contention (among others) in the bar. The whole example is a symbol of what may happen to inattentive readers.

Reference problems occur in reading Lotus Eaters. At the end of the episode Bloom thinks "Enjoy a bath now: clean trough of water, cool enamel, the gentle tepid stream. This is my body" (U 85) and a reader may think that now and "this is my body" place Bloom in the water. But these are only his 'real' imaginings of what will appear.

In Hades the category of language as object and relation is placed in a situation from which life itself is seen as an object and death as a relation. The previous proportioning of absence and presence is here given a real, yet absolute context. The lack of a clear signified 'reality' to life is a constant feature of life. The 'end' of life allows meaning to be found in the process of life. Language is thus placed in a different perspective because of this context which pervades the silences and the details and the humor of the episode. The episode is a demonstration of the hypothesis. Bloom's truths are simple perceptions about language: the priest has a "tiresome kind of a job. But he has to say something" (U 104/103). Kernan comments that the service was conducted too quickly and Bloom thinks: "the language of

course was another thing. . . . the resurrection and the life. Once you are dead you are dead" (U 105/104). Language is considered, consciously, as an object. It is cognition-dependent, as Bloom here recognizes (and as Stephen recognized in Proteus). Indeed, language is "another thing."

Language is considered in the perspective of time and as it is a means of establishing relationships between physical things and between people's thoughts of them. Considered in relation to death (in relation to the end of the process) both the 'natural' process and the process of cognition (or life) take on a 'retrospective arrangement'; and it is this theme which is introduced in Hades. The whole episode is a result of testing of the hypothesis which includes the absence of the causing agent in return life itself. The idea of a "retrospective arrangement" is introduced by Mr. Power early on in the episode:

The carriage turned again its stiff wheels and their trunks swayed gently. Martin Cunningham twirled more quickly the peak of his beard.

--Tom Kernan was immense last night, he said. And Paddy Leonard taking him off to his face.

--O draw him out, Martin, Mr. Power said eagerly. Wait till you hear him, Simon, on Bed Dollard's singing of The Croppy Boy.

--Immense, Martin Cunningham said pompously. His singing of that simple ballad, Martin, is the most trenchant rendering I have ever heard in the whole course of my experience. [emphasis is the text's]

--Trenchant, Mr. Power said laughing. He's dead nuts on that. And the retrospective arrangement.

--Did you read Dan Dawson's speech? Martin Cunningham asked.

--I did not then, Mr. Dedalus said. Where is it? (U 91/90; emphasis added)

Simon Dedalus' cleverness with words loses its effectiveness: then as a marker of time in a "retrospective arrangement" is only a relative means of establishing meaning. It refers forward to the time of telling as well as backward to the specific event. It becomes a means of marking differences. Representation operates in temporal arrangement governed by a present 'narrator'; signification operates in a "retrospective arrangement" --an arrangement wherein one must consider meaning as a relative element in a process. A cognitive element is thus present but it is only known analytically.

The "end" of life, of the system, is part of both the natural and artistic processes. This has been discussed as a concept in Joyce's Notebook. We here have a symbol of it as it is a demonstration of section I. It is an aspect of abduction which here is tested experientially.

#### Language as a Secondary Modeling System (episodes 7-9)

In Aeolus, Lestrygonians, and Scylla and Charybdis Joyce continues to present language as an object whose referential function can be real or imaginary. We perceive the different ways in which language thus shapes our lives.<sup>37</sup>

The previous three episodes showed the manner in which Bloom deals with the realities of experience: his marital relationship, his social relationships, and his relationship with natural systems that are as basic as life and death.

Our perception of him in terms of some kind of objective structure (provided by the 'sensory core' and by the language which has operated on the two levels as object and as indicator) has allowed us to consider his personal manner of dealing with people, places and things: with imagination, pragmatism, and a curiosity about the way things function. We have perceived him from a perspective in which language seems to be somewhat indifferent to his life. He seems to be the object of understanding from this perspective of language. Yet, this primary network of interactions is part of a larger context of relationships which included different types of experience: his relationship within cultural systems, his interactions from the perspective of the 'realities of his experience, and from the perspective of the linguistic system. The effect of secondary systems based on language such as culture, religion, government, and so on, can be presented if the hypothesis is true.

If the natural process is like the artistic process, what would be the limit of its ability to represent humans? This potential of the hypothesis is demonstrated in the following episodes. Without an explanatory narrator commenting on a plot, we are pushed past one person's relations to a given event and we see the manifold of experience itself presented.

Understanding a person's relationship with these secondary systems is as important as, but different than, a person's primary reactions to physically real people, places

things and one's ideas of them. This is what is so individual to Ulysses: our understanding of a person's relation to these secondary systems which seem to have an unreal dimension simply because they treat persons indifferently and yet shape behavior and our perceptions. This is an aspect of the hypothesis which demonstrates its revolutionary import as an actual principle of representation not limited to one person's perspective.

Aeolus, with its headlines indifferent to action and words and humans, with the whirring of the machines at the Freeman's Journal, and with its independent signifying system, is a target example of Joyce. The first voice we hear after the trams "slowed, shunted, changed trolley and started" for various section from Nelson's pillar "IN THE HEART OF THE HIBERNIAN METROPOLIS" is possessed by "Dublin United Tramway Company":

--Rather and Terenure!  
 --Come on Sandymount Green! (U 116/115)

The mail system is "THE WEARER OF THE CROWN"--"mailcars received loudly flung sacks of letters. . . ."

Language reflects this arbitrary secondary system:

#### GENTLEMEN OF THE PRESS

Grossbooted draymen rolled barrels dullthudding out of prince's stores and bumped them up on the brewery float. On the brewery float bumped dullthudding barrels rolled by grossbooted draymen out of Prince's stores (U 115/116).

Men are conducting the process, but they can be overlooked easily by a reader: they are part of a larger system which is being stressed. Who are the "GENTLEMEN OF THE PRESS"?

--Just cut it out, will you? Mr. Bloom said, and I'll take it round to the Telegraph office.

The door of Ruttledge's office creaked again. Davy Stevens, minute in a large capecoat, a small felt hat crowning his ringlets, passed out with a roller of papers under his cape, a king's courier.

In this secondary modeling system, based on language and producing it in pulp, people such as Davy Stephen look minute and are shaped down to their utterances:

--Of course, if he wants a par, Red Murray said earnestly, a pen behind his ear, we can do him one.

--Right, Mr. Bloom said with a nod, I'll rub that in. We (U 116).

WITH UNFEIGNED REGRET IT IS WE ANNOUNCE

THE DISSOLUTION OF A MOST RESPECTED

DUBLIN BURGESS

. . . Thumping thump. This morning the remains of the late Mr. Patrick Dignam. Machines. Smash a man to atoms if they got him caught. Rule the world today. . . Like these, got out of hand" (U 118/117).

And the headline is 'unreal' -- does not get published as will the clipped announcement of Dignam's "death" (an 'unreal' word in this system).

These secondary systems based on language but possessing a life and structure of their own do "rule the world today" and "get out of hand." We are not surprised that Bloom is forced to get his advertiser, Keyes, to contract for three additional months before they would run his "little puff"; not surprised that after Bloom returns with a two month

promise he is told to tell Keyes to "K.M.A. 'Will you tell him he can kiss my arse?' Myles Crawford said" (U 146/45). Stephen fares a little better; the letter from Deasy is accepted, and he is asked by the editor to "write something . . . Something with a bite in it" (U 135/133).

Before Stephen's "response" he learns that Gumley as a person doesn't count in conversation (U 135-6/134); he learns that the system of the press has a rather 'unreal' historical experience that it conveys as something 'transcendent' (Igantius Gallaher's cable about the Phoenix Park Murders based on an ad where places and events were encoded into letters of the ad: "F.A.B.P." [U 136-9/134-5], for example.<sup>38</sup>) Stephen learns that the system would shape him as it has J.J. O'Molloy:

--He spoke on the law of evidence, J.J. O'Molloy said, of Roman justice as contrasted with the earlier Mosaic code, the lex talionis. And he cited the Moses of Michelangelo in the Vatican.

--Ha. [Emphasis added]

--A few well-chosen words, Lenehan prefaced.

Silence!

Pause. J.J. O'Molloy took out his cigarette case.

False lull. Something quite ordinary.

Messenger took out his matchbox thoughtfully and lit his cigar.

I have often thought since on looking back over that strange time that it was that small act, trivial in itself, that striking of that match, that determined the whole aftercourse of both our lives (U 140/138).

J.J. O'Molloy's gesture, the false 'lull', Messenger's thoughtful lighting his cigar --they all conspire to put Stephen in his place, or try to. Why? Because Stephen has responded critically to O'Molloy's information with "HA."

Stephen learns that he is not perceived as a human with other humans but as a potential part of the secondary modeling system. The system attempts not only to shape his role but to shape truth, as Stephen would see it. Whether J.J. O'Molloy was quoting Seymour Bushe or adding the error himself, the Moses of Michelangelo is not "in the Vatican" but in San Pietro Vincoli in Rome. We are never told whether Stephen stays on to become a member of the press. But we have a basis to doubt his acceptance of this offer.

After hearing, or tolerating barely, three forms of oratory, Stephen thinks "Gone with the wind. . . . Miles of ears of porches. The tribune's words howled and scattered to the four winds. A people sheltered within his voice. Dead noise. Akasic records of all that ever anywhere wherever was. Love and laud him: me no more" (U 143/141-2). He offers to lead them all to the nearest pub. Stephen's concern for the voices of the people, and Stephen's indictment of the Irish politicians (O'Connell) and 'institutions' (these 'secondary systems') is clear. The akasic records ("the infinite memory of eternal nature in which every thought, silent or expressed, is immortalized"<sup>39</sup>) will be the focus of his writing, not for the Freeman's Journal, to be sure. Stephen feels "A people sheltered within his voice." He needs to express their unexpressed thoughts and feelings as they really exist. And he realizes he will thus find a content other than himself.

He will, as a private individual speaking subjectively, no longer exist: "Me no more."

Stephen and Bloom (though they don't meet) respond similarly to the 'system.' Bloom, after being told that his client could kiss his bosses arse, relentlessly asks again and is given the same answer, "royally." The text continues: "While Mr. Bloom stood weighing the point and about to smile he strode on jerkily.

"RAISING THE WIND" (U 147/145)

And Stephen's response is quite similar, though worded: "A Pisgah Sight of Palestine or the Parable of the Plums" (U 145-8). He speaks of particular, everyday people of Dublin (not acceptable to the modeling system and thus translated into incorrect rhetorical terminology by the professor [144]). The 'story' is a challenge to "let there be life," as he dares himself to go on (U 145/143). He speaks of the "realities" of primary experience to those who have been shaped by the 'unrealities' of the secondary modeling system.

The "gentlemen" of the press, following Stephen's suggestion that they adjourn (to a pub) leave the offices of the press, hear the "Parable":

Dublin. I have much, much to learn.  
 They turned to the left along Abbey Street.  
 --I have a vision too, Stephen said.  
 --Yes, the professor said, skipping to get into step. Crawford will follow.  
 Another newsboy shot past them, yelling as her ran:  
 --Racing special!

## DEAR DIRTY DUBLIN

Dubliners.

--Two Dublin vestals, Stephen said, elderly and pious, have lived fifty and fifty three years in Fumbally's lane.

--Where is that? the professor asked.

--Off Blackpitts.

Damp night reeking of hungry dough. Against the wall. Face glistening tallow under her fustian shawl. Frantic hearts. Akasic records. Quicker, darling!

Oh now. Dare it. Let there be life.

--They want to see the views of Dublin from the top of Nelson's pillar. They save up three and tenpence in a red tin letterbox moneybox. They shake out the threepenny bits and a sixpence and doax out the pennies with the blade of a knife. Two and three in silver and one and seven in coppers. They put on their bonnets and best clothes and take their umbrellas for fear it may come on to rain.

--Wise virgins, professor MacHugh said (

144-5/143).

The "Parable of the Plums" continues for four pages (with frequent interruptions). In short, the two Dublin women, from atop Nelson's Pillar, having eaten brawn and panloaf and climbed the winding staircase, eat their twenty-four plums and peer at the statue of the onehanded adulterer, "spitting the plumstones slowly out between the railings" (U 145-8/143-7).

And with these final words "Stephen gave a sudden loud young laugh as a close" ( 146). He has presented something with a "bite in it," but it is incomprehensible to them. What Stephen "composes" and presents to the press is not pulp. It is the plumstone, not the plum they are expecting. To understand it, the press would have to perceive the world

in different terms. Like Ulysses which opens up a new perspective, or way of thinking, the parable also has such an intended purpose. We thus have another consequence of the hypothesis. The reaction of the men to the "Parable" continues through to the end of the episode. They question, comment, joke -- their interpretation is thus included. Together the Parable and the meaningful interruption (on interactions with the process of the contextual environment) and the interpretant form an index of the text of Ulysses as a whole.

The next episode, Lestrygonians, stresses the disparity between language as a secondary modeling system and language as a human experience. The disparity is not shown from within the secondary modeling system (as it is in Aeolus). Stephen perceived the disparity from within the secondary system in the last episode and responded much like the sun at the end of Nestor: he flung the coin titled Parable of the Plums--or Pisgah Sight of Palestine -- upon its "wise, collective shoulders." But in Aeolus what is stressed is the secondary system itself as it thumps on circulating its code among those it shapes.

In Lestrygonians we see how the secondary system has filtered into the perceptions of those in the primary human experience. The people of Dublin provide examples. Bloom is hungry and more conscious of "institutions" because of Aeolus. He is given a throwaway asking if he's saved:

"Elijah is coming. Dr. John Alexander Dowie, restorer of the church in Zion, is coming" and Bloom places Dowie in the group of other reformers like Torry and Alexander last year (U 151/149), and he thinks of the ad for luminous crucifixes. Traditional religion is "living on the fat of the land" (U 151/149) and doesn't need to advertise the luminous crucifixes.

Bloom notices the poverty of the Dublin citizens-- Dedalus' daughter selling old furniture, one of fifteen children--and indirectly thinks of the cause or one cause: "Increase and multiply. Did you ever hear such an idea? Eat you out of the house and home. No families themselves to feed...[any particular priest] does himself well. No guests" (U 151-2/149-50). The Dedalus girl, he notices, is "underfed . . . undermines the constitution." His criticism of established religion is implicit.

He considers how rats get in the vats at the Brewery: "Imagine drinking that! . . . Well of course if he knew all the things" (U 152/150). Of course Bloom doesn't drink it.

He moves, by association, from the effects of humans he sees to a consideration of the various secondary systems partially responsible.

He feeds the gulls who "live by their wits . . . aware of their greed and cunning." He sees an ad for trousers and wonders "if he pays rent to the corporation. How can you own water really?" (U 153/151).

When he considers the time of day he would like to know what "Parallax" is: "I never exactly understood" (U 154/152). Later his correction about the timeball on the ballast office falling at Greenwich time rather than Dunsink time leads to his criticism of the educational system:

. . . It's the clock is worked by an electric wire from Dunsink. Must go out there some first Saturday of the month. If I could get an introduction to professor Joly or learn up something about his family. That would do to: man always feels complimented. Flattery . . . lay it on with a trowel . . . . Not go in and blurt out what you know you're not to: what's parallax. Show this gentleman the door (U 167/164).

Earlier he had considered asking the priest the same question (assuming the priest would know Greek.) Unfortunately, Bloom is kept in the dark and must live by his wits. He thinks of others isolated inside their own worlds within worlds--like the sisters at the convent (they're hard to bargain with: "it was a nun they say invented barbed wire" [153]). Bloom is part of the "Stream of Life" (U 155/153).

Bloom watches madness and civilization. Denis Breen, who has received the postcard with "U.P," on it is "finding out the law of libel" (U 157-8/155-6). Mrs. Breen tells Bloom: "It's a great shame for them whoever he is," and Bloom thinks "U.P.: up. I'll take an oath that's Alf Bergan or Richie Goulding. Wrote it for a lark in the Scotch house, I bet anything," as he watches Denis Breen go round to the lawyer Menton's office (who will look upon the postcard as a feast) (U 160/157).

Denis will be like Cashel Boyle O'Connor Fitzmaurice Tisdall Farrell, according to both Mrs. Breen and Bloom:

Mr. Bloom touched her funnybone gently, warning her.  
--Mind! Let this man pass.

A bony form strode along the curbstone from the river, staring with a rapt gaze into the sunlight through a heavy stringed glass. Tight as a skullpiece a tiny hat gripped his head. From his arm a folded dustcoat, a stick and an umbrella dangled to his stride.

--Watch him, Mr. Bloom said. He always walks outside the lampposts. Watch!

--Who is he if that's a fair question . . . . Denis will be like that one of these days (U 159/157).

Bloom connects their madness with the effects of the secondary modeling system. Bloom next thinks of his own "writing" and correspondence from Martha; writing is an alternative, positive means of dealing with "reality." Later, in a bleaker mood, as the cloud hides the sun, he thinks/perceives: "Trams passed one another, ingoing, outgoing, clanging. Useless words. Things go on same; day after day: squads of police marching out, back: trams in, out. Those two loonies mooching about. . . . Cityful passing away, other cityful coming, passing away too: other coming on, passing on. Houses, lines of houses . . . This owner, that. Landlord never dies they say. . . . They buy the place up with gold and still they have all the gold. . . . Pyramids in sand. Built on bread and onions. Slaves Chinese wall . . . . No one is anything" (U 164/162; emphasis added). As the sun frees itself, he thinks of solutions, "unclaimed money," and "parallax".

The language question is related to the economic question. His thoughts of politics: "debating societies.

That republicanism is the best form of government. That the language question should take precedence of the economic question" (U 164/161). Language by people in the society and people in the "institutions" and the institutions themselves should confront the problems of economics, war (U 163/161), international trade (U 166/164), education, "news" (U 160/158). We're "all a bit touched" (U 163), all affected, "People ought to help" (U 181/179).

Bloom knows all the personal tidbits of everyone he seems to see and he "digests all" (U 172/169). He wants to write, not like A.E. or Lizzie Twigg, "those literary ethereal people" (U 166/163), but like a detective. "He passed the Irish Times. There might be other answers lying there. Like to answer them all. Good system for criminals. Code. At their lunch now. Clerk with the glasses there doesn't know me. O, leave them there to simmer. Enough bother wading through forty-four of them. Wanted smart lady typist to aid gentlemen in literary work. I called you naughty darling because . . . . Please tell me what is the meaning." (U 160/157-8). He has, it seems, placed an ad for a lady typist to help him in his literary work; but, as we find out later, he wants to remain anonymous and won't even sign his name in black and white to paper (U 175). The lady typist may be Martha. The manner in which she aids his "literary work" is an index of the relation between Stephen and the female/mother "matrix of semiosis" discussed in section I.

"Irish Times . . . answers . . . code" -- whether he will apply that sign system of the paper (as we have seen it in Aeolus) to his own intent in writing, we will never know. (Such a possibility has not been previously considered.) Stephen has attempted to answer the (secondary) system by telling the Pisgah Sight of Palestine or Parable of the Plums. Stephen has started to use the "speech" of sign system against itself, which allows him to speak of some of the issues on Bloom's mind without fear of reprisal. Those in society, like Denis Breen, who do not have "the presence of mind" to do so become its victims (if they do not agree to become part of the "Modeling system," they are left at a disadvantage outside it unless they live by their wits).

Lestrygonians demonstrates the experience of people as they are affected by the secondary modeling systems. Facts of individual life are based on the larger economic, political, religious institutions. Even animals and physical environment are seen in relationship to the secondary modeling system (can one own the water?). Lestrygonians reveals these perceptions from the perspective of one who seems to perceive and digest almost everything about the "realities" of experience except his own. Like cheese that "digests all but itself" (U 172/169), Bloom avoids facing the "reality" of the possible liaison between Blazes (whom he avoids at the end of the episode) and Molly. To what extent that possibility whets his appetite needs to be considered, as well as the extent to which such "imaginings" (not based

on 'evidence') of Bloom are his way of coping with the effects of the secondary modeling system. He is aware of what the community says about his wife. His correspondence with Martha allows him to escape Farrell's problem.

Cashel Boyle O'Connor Fitzmaurice Tisdall Farrell appears in Scylla and Charabdis, episode nine:

The constant readers' room. In the readers' book Cashel Boyle O'Connor Fitzmaurice Tisdall Farrell parafes his polysyllables. Item: was Hamlet mad? The quaker's pate godlily with a priesteen in booktalk (U 215/212).

He flourishes his signature or style to protect his polysyllables from forgery. He has never found a method to give expression to whatever ideas/writing may once have been a vital possibility within his mind, and he wonders about the image of himself in Hamlet's image. If we remember, he has an obsession with the sun and looks at the sunlight through a heavy stringed glass; and we can assume that before his obsession he may have thought the sun provided such an escape or means of expressing what to him is unexpressible.

Farrell is Stephen Dedalus without Stephen's ability to "Act speech." Stephen remembers, "They mock to try you. Act. Be acted on" (U 211/208). Stephen, like Farrell, has found some aspects of the sun important. He too has considered it as an analogy for artistic expression in the natural process. And we recall that the sun in Proteus was used as a method of beginning and continuing his "narration" of his stay in Paris. Farrell places string around the glass

through which he watched the sunlight, perhaps to hold the rays together. The string is no replacement for the mental interpretant(s) which hold(s) items in a series by the force inherent in the system. What holds Stephen's ability to "Act speech" together as he maneuvers his discourse through the Scylla of reality and the Charybdis of his intent/'unreality'/possibility is revealed in Stephen's next thought: "Lapwing. I am tired of my voice, the voice of Esau. My kingdom for a drink. On" (U 211/208-9). He recognizes the principle of the hypothesis, similar to Derrida's grammatology. Esau is the elder son of Isaac and Rebekah who sells his birthright to his twin brother Jacob. Jacob, who needs Isaac's blessing, wears hairy animal skin as he approaches his father who is near death. Isaac recognizes the voice of Jacob, but, feeling the hairy hand, is deceived into giving Jacob the inheritance and kingdom. Stephen must play the role of writer and speak in his own voice until he has written and is recognized for having written an important literary work. Like Jacob, he needs the 'blessing' of the possessors of influence, power, and literary connections (Stephen's birthright). But Stephen comes in his own person and has not sold his birthright. He thinks of himself in this revolutionary role which overturns national and religious tradition. He must be his own ventriloquist: for the blessing of the literary establishment he must "Act Speech" of Jacob (come for the blessing). The hand of the artist is no problem. If he accomplishes this dangerous

course, he will be in possession, soon, of the unvoiced voice of the possessor: the artist. He will give up his 'tired' voice.

Stephen does accomplish his purpose, as shown in the end of the episode:

Kind air defined the coigns of houses in Kildare street. No birds[of prophesy, for the prophesy has been actualized since his original thought of the accomplishment in Portrait]. Frail from the housetops two plumes of smoke ascended, pluming, and in a flaw of softness, softly were blown.

Cease to strive. Peace of the druid priests of Cymbeline, hierophantic: from wide earth an altar.  
Laud we the gods  
And let our crookedsmokesclimb to their nostrils  
From our bless'd altars. (U 218/215).

And the last line of Cymbeline: "Publish we this peace/To all our subjects" (V, v, 476-79).

To "ACT SPEECH" Stephen must be aware of a few basic facts. First, the language of Mr. Best, John Eglinton, George Russell or A. E., and "Quakerlyster" the librarian is language that has been shaped by the literary establishment. Their language-behavior is a product of what they have read, what they have themselves written and translated, what they represent in the literary establishment of Dublin, and who they have been influenced by in literature (past and present) and literary criticism. In short, Stephen need only remember that they are products of a 'secondary modeling system.' Second, their non-language behavior must also be monitored.

This includes all of their perceptions that are pre-linguistic: looks exchanged; facial expressions revealing flexibility, obstinance, dissatisfaction from each person's private response; body position and movement; interruptions from outside the room; entrances and exits as they alter the group dynamics; and so on. Third, he must himself critique his own "performance": he must stage, direct, produce and act an experience that will have the correct impact on them: he should come across as clever, imaginative, proper in his respect for what each represents (personally as well as publicly) and, most importantly--convincingly as he "proves" his theory of Hamlet. Of course, he must constantly be aware of his act as an act and keep in mind the truth behind his construction.

Their status as products of a 'secondary modeling system; their pre-linguistic experience of perception of what occurs; and Stephen's intent to "shape" the previous items to his purpose must be focused on without lapse: once managed, they do bring his "reward". John Deely mentions the first two concepts as "the twofold non-linguistic inlay embedded in and influencing semiotic exchange,"<sup>40</sup> and it is this which Stephen uses to his advantage. If we keep in mind the non-linguistic nature of these characteristics, we can understand Stephen's thoughts in the episode as purposeful behavior: a translation of hidden intent or influence on their part; a re-focusing mechanism and 'primer' on his part.

He knows how and when to respectfully interrupt to "score a point":

[Best] repeated to John Eglinton's newgathered frown:

--Piece de Shakespeare, don't you know. It's so French, the French point of view. Hamlet ou. . .

[ellipses in text mark Stephen's interruption]

--The absentminded beggar, Stephen ended.

John Eglinton laughed (U 187/185).

The following lines exhibit Stephen's deliverance of a point; his interpretation of the "two fold non-linguistic inlay"; and his 'positioning' of himself in terms of his purpose:

--What is a ghost? Stephen said with tingling energy. One who has faded into impalpability through death, through absence, through change of manners. Elizabethan London lay as far from Stratford as corrupt Paris lies from virgin Dublin. Who is the ghost from limbo patrum, returning to the world that has forgotten him? Who is King Hamlet?

John Eglinton shifted his spare body, leaning back to judge. (U 186/ ; emphasis mine).  
Lifted (U 188/186; emphasis added).

"Lifted" is understood in terms of the passage in Proteus in which Stephen imagines three different priests conducting mass. The lifting of the gifts of mass (at transubstantiation)

. . . see him me clambering down to the foot pace (descended), clutching a monstrance, basilisk-eyed. Get down, bald poll! A choir gives back menace and echo, assisting about the altar's horns, the snorted Latin of jackpriests moving burly in their albs, tonsured and oiled and gelded, fat with the fat of kidneys of wheat.

And at the same instant perhaps a priest round the corner is elevating it. Dingdring! And two streets off another locking it into a pyx. Dringadring! And in a ladychapel another taking housel all to his own cheek.

Dingdring! Down, up, forward, back. Dan Occam thought of that, invincible doctor. A misty English morning the imp hypostasis tickled his brain. Bringing his host down and kneeling he heard twine with his second bell the first bell in the transept (he is lifting his) and, rising, heard (now I am lifting) their two bells (he is kneeling) twang in diphthong (U 40/41; emphasis added).

Stephen in Proteus understands the interaction of semiosis. One person's movement from, another's movement toward, and another's stationary position in terms of the sound made during their movements, can be directed in his mind so they "twang in diphthong." In Scylla and Charybdis, Stephen uses the phrase which he remembers from Proteus: LIFTED. His Hamlet theory is the gift now offered. And it (LIFTED) shows that Stephen has interpreted Eglinton's behavior as a sign of possible acceptance-and much more. It shows that Stephen is using the modeling system of religion to mark or shape his own progress in his "proof."

The same word is used later in a more specifically religious context (where he is also considering via the analogy of religion his own accomplishment at the moment of 'becoming' the father/artist despite Buck's immediate entrance):

He who himself begot, middler the Holy Ghost, and Himself sent himself, Agenbuyer, between Himself and others, Who, put upon by His fiends, stripped and whipped, was nailed like bat to barndoor, starved on crosstree, Who let Him bury, stood up, harrowed hell, fared into heaven and there these nineteen hundred years sitteth on the right hand of His Own Self but yet shall come in the latter day to doom the quick and dead when all the quick shall be dead already.



He lifts hands. Veils fall. O, flowers! Bells with bells with bells acquiring (U 197-8/195; emphasis mine).

In mass a priest lifts his hands after transubstantiation. When Stephen considers the image, he realizes that an author of a work is independent of his creation, that the creation itself exhibits transubstantiation. With an allusion to Proteus when he thinks of the veil between cognition-dependent and cognition independent, the "veils fall." The secret of transubstantiation is the secret of semiosis. It is in the process of art. "Acquiring" suggests both the end and the means of the process. We can clearly see that language is shaping Stephen's consciousness, just as Stephen's consciousness requires an understanding of the shaping that has occurred and is occurring in his listeners/(readers)/audience. In addition, we can also appreciate here, more than anywhere else in the novel, the reason for the effectiveness of these "analogies." The episode is based on the dialectic of proof that as Mulligan puts it "Hamlet's grandson is Shakespeare's grandfather and that he is himself the ghost of his own father." In Nestor: "He proves by algebra that Shakespeare's ghost is Hamlet's grandfather." The difference shifts the burden of proof from

within the fiction to something outside the frame of fiction, the generation from inside the work to outside. The "proof" is, in this episode, the plot. It is a symbol of the "proof" or demonstratio of the independence of the creator in deduction (of Ulysses).

The theory behind the concept of the trinity (theological, artistic) is, in the abduction of section I, pondered in terms of the hypothesis.

In Section II the theory is itself considered experimentally in the library. As the deduction in Section II continues we move from simple demonstrations of the hypothesis -- such as those relating to Bloom -- to complex consequences -- such as those pertaining to society. In the first three episodes of Section II we have seen the progression based on language as object and as relation. In this second set of episodes in Section II we have been made aware of language used as a secondary modeling system. Together these six episodes affirm and demonstrate the potential of the hypothesis as a revolutionary means of revealing the reality of experience.

The next set of episodes reveal language itself as a post-linguistic structure. This is the subsection of the novel which is usually pointed to as the beginning of Joyce's drastic 'style' changes. We can see, instead, that the explication of the hypothesis (in deduction) leads to a self-referential demonstration of the experiential consequences it implies.

Language as Post-linguistic Structure (episodes 10-12)

In this section we will discuss Wandering Rocks, Sirens, and Cyclops as they relate to language used as a Post-linguistic structure. In the previous section we have seen the institutions (which are based on language) as they shape or affect consciousness, as they shape the public experience of citizens, and as they become an experience in themselves which shapes the people within it. Now the institution is not the press, or religion, etc., but language itself. Language used and understood semiotically is an institution.

The indifference of the press as a specific institution is only a microcosm of the indifference of language when perceived as such. In Wandering Rocks language is shown to be a means of discriminating physical relations and cognition-dependent relations. The ability of languages to thus discriminate reveals its own indifference to the ultimate or absolute ends of the process, for it is concerned with the means of discovery and of understanding. A community of interpreters is necessary.

Wandering Rocks is divided into nineteen sections which show the indifference of language to life. The representative nature (dyadic) of language is specifically shown false. In the process of semiosis dyadic representation is shown to be a mere transcendental relation. Signification (triadic representation) is shown to be an ontological relation.<sup>41</sup>

Representation is shown as a transcendental relation in Wandering Rocks. The eighteen parts which precede the

section on the viceregal parade interlock as representation does its part making a reader aware of the relationship which literally gesture meaning rather than serving the traditional function of making reality verisimilar.

In the first section Father Commee feels his ankles "tickled by the stubble of Clogowes field" but the representative role of language is false. He is actually thinking this, not experiencing it. The bells he hears are also misleading, for "the joybells ringing in gay Maldahide" (U /223) are in his imagination. No bells are actually ringing at the moment. Of course, we have read of Stephen's discovery of this principle of language in Proteus as it applied to his walk along the strand. And of course, we have seen language as a object in Calypso. In Lotus Eaters the referential powers of language were contrasted to the status of language as object. Each of the episodes has brought us closer to the application of the principle in an episode. And as the book turns in its "new sockets" it uses the same principle that Stephen discovered as he turned around in his "new sockets." Language functions in the absence of sense-objects. Sense objects are Berkeleyan: they are cognition-dependent and allow us (when we accept their status) to understand the 'higher perspective.' In this perspective, sense objects are "shifters." And Stephen has understood that any object can be a sign of the creator/created relationship. "You find my words dark," he thinks.

Here in Wandering Rocks the words do seem dark if we have not given up the need to cling to the representative function as something which is in the non-cognitive realm of what is 'real.'

Relations which are established in the mind can continue to exist long after the subjective ground disappears. In addition, these same relations can be introduced into the physical order of things. Both Bloom and Father Conmee think that a tramline should be introduced in the busy thoroughfare of North Circular road, and later after Ulysses, whether a reader is or is not aware of it, one is introduced. Both referential and textual 'realities' are included. The same process of introducing ideas into physical reality occurs in Wandering Rocks. The ideas exist and can be added to reality, thus changing the nature of what physically exists. "From the hoardings Mr. Eugene Stratton grinned with thick niggerlips at Father Conmee" (U 222/219). Bloom, earlier in Lestrygonians, established a relationship between the advertisement of Eugene Stratton (seen in Hades [U 90]) and the word "nigger" via a limerick which allows him to think of the name Penrose (U 169-70). The picture of Eugene Stratton, made non-representational, is introduced without its 'subjective ground' (Bloom's consciousness) into Wandering Rocks, where he grins at Father Conmee. The presence of the line serves to judge Conmee.

The section on Father Conmee is the longest and the first, and provides a microcosm of the transcendental

relation of representation as it works within a particular mind. "He bore in mind secrets confessed and he smiled at smiling noble faces in a beeswaxed drawingroom" (U 223/220) and these secrets become part of what he perceives in his walk. They are part of what Conmee reads:

A flushed young man came from a gap of a hedge and after him came a young woman with wild nodding daisies in her hand. The young man raised his cap abruptly: the young woman abruptly bent and with slow care detached from her light skirt a clinging twig.

Father Conmee blessed both gravely and turned a thin page of his breviary (U 224/221).

He doesn't see the young couple but he thinks of "blessing" couples about to commit 'sin' as he reads "Sin: Principes persecuti sunt me gratis: et a verbis tuis formidavit cor meum." Sin is the Hebrew letter heading the psalm he is reading: "Princes have persecuted me without a cause: but my heart stands in awe of thy word" (section 21 of Psalm 119 in the Vulgate version).<sup>42</sup>

What seems to be real is part of this mental construction, and knowing this reveals much about his 'construction,' Representation is a dyadic relation for Conmee: the words he reads have no relation to what is in his mind. He finds himself in the position of being 'above' 'superior' to what he sees or reads. Conmee is unaware of the effects his behavior is having upon himself and others (the latter shown in Lestrygonians).

Wandering Rocks itself provides an example of a process that allows for the awareness Conmee lacks. It "demands" that a reader understand representation is part of a larger

process of signification. Miss Dunne seems to be the correspondent of Henry Flower, but is not. Bloom, the dentist, has no relation to Leopold Bloom. The characters themselves are victims of assuming a false conclusion based on 'signs' which they interpret conventionally. At each mistake in representation, and at each switch from one context to another within subdivisions and between subdivision, a reader is encouraged to witness the process of signification: The first eighteen subsections encourage a reader to find the 'higher perspective' from which these slices of information can be understood. They are brought to a focus in the last subsection which is the only one without switched contexts. Pieces of the previous subdivisions are unified by the viceregal passage through Dublin, but what is important is the manner in which they comment upon the event. The evaluation is stronger and more critical because it does not contain direct, authorial comment.

The episode causes us to reflect upon the role of 'signs' in structuring experience and in revealing culture and nature to our understanding. Signs structure experience; and we can be aware of that and understand how the semiosis of episodes in the novel have done the same. Not to be aware of the process of signification would leave us much like Conmee. To be aware of the process is to learn a new manner of discriminating between what is 'real' and what is 'unreal.' Language can be used as a tool to discriminate between relations, to find relations that have no counterpart

in the physical world. Language is the difference between a closed world and one open to change, open to understanding. Language has tremendous signifying potential, it can be used by the understanding; different than physical reality, it seems to be indifferent to life and the natural process of life which is continuous like the river Liffey. But it seems intrusive only when it does not try to "imitate" things as they are. This, of course, is the thought of Stephen in Proteus. Here, in deduction, the ideas are demonstrated.

When language is used to make differentiations that can help us evaluate our position anew it is the one thing we should become aware of and focus our attention upon. In Wandering Rocks language is used to discriminate, to signify. This is its power. It is "in our hands" and can be used creatively-as a generative force in society.

Sirens extends the potential of the reader who has just become aware of the signifying potential of language. A reader is given at the beginning of the episode a series of words, sounds, and phrases which has a marked ending: "Then, not till then. My eppripfftaph. Be pfrwritt. Done" (U 257/253). These are the signs upon which will be constructed the following 'story' in the episode: "Bronze by gold, Miss Douce's head by Miss Kennedy's head . . ." (U 257/253; my emphasis). The first 'sign' is thus made apparent in the following 'arrangement.' We become aware of the aesthetic effect to which the signifying potential of language can be put. Language can be used to

create a form which is meaningful as an aesthetic production, one which comments on life and gives life expression. Words and language which shape experience can themselves be forged into an experience.

Music of course is based on the establishment of a rhythm and usually a melody which are the basis of the variations and developments within the composition. The same is true of Sirens whose technique is "fuga per cononem," and whose art (music) is played in the Dublin Concert Room at 4 p.m.

Such use of a modeling system has been seen in Scylla and Charybdis when Stephen uses the religious mass as a means of marking the movement of his position and argument while 'acts speech.' It has given shape to his position or consciousness of it. In Wandering Rocks the signifying potential of language was shown to mark a higher position of understanding relationships than that of representation. But Ulysses as a whole is such a signifying system. The first episode contains all of the major signs: they are abducted in Section I. In Section II they are "deduced"-shown as the consequence of what would be possible if the hypothesis were true. Section I is thus like an overture, or original melody. Section II is a string of elaborations, with its variations, additional parts, and 'copies' of the original melody. The signifying system used in Sirens is a microcosm of the signifying system used in the novel. One must read Ulysses vertically as well as horizontally, as one

would listen to a symphony. The representational elements of the story become in Sirens as well as elsewhere, part of the process.

Sirens reminds us that what we have read about Bloom is part of the language of a novel, language which is not representational except to provide a basis for the patternings (which are integrated through semiosis). "As said before he ate with relish the inner organs, nutty gizzards, cods' roes" (U 269/265), and we are reminded as Bloom is served food that we already know his eating habits. We are asked to recall episode four and include its language as part of the self-conscious patterning. "Bloom at liv as said before" (U 271/266).

Sirens reminds us that the primary purpose of the episode is its signifying capacity, not a traditional story about Bloom. Bloom himself thinks "We are their harps. I. He. Old. Young" (U 271/267). He is an instrument, not the tune: "Time makes the tune," (U 278/274). And as in a composition of music or literature such as Ulysses, with time comes variation. Sirens points out that one version or variation is not more or less true or false than another because all are part of the changing nature of a sign: "Under Tom Kernan's ginhot words the accompanist wove music slow. Authentic fact. How Walter Bapty lost his voice" (U 281/276). Kernan testifies to his forthcoming story's genuine 'reality' as lyrics to a song whose music is near (heard by him) and far (part of the form of the episode).

His words are themselves a figure of speech, suggesting elaboration--like the "speech paused on Richie's lips. Coming out with a whopper now. Rhapsodies about damn all. Believes his own lies. Does really. Wonderful liar" (U 268/272).

And Sirens stresses the variations on various themes characteristic of sign-systems and modeling sign-systems: "Richie cocked his lips apout. A low incipient note sweet banshee murmured all. . . . Rich sound. Two notes in one there. Blackbird I heard in the hawthorn valley. Taking my motives he twined and turned them. All most too new call is lost in all Echo. How sweet the answer. How is that done?" (U 272/268). Bloom's "motives" were twined and turned by the blackbird. The same play of twinning and turning is the basis of the novel. Stephen was aware of the principle in Telemachus; it fits a musical system as well as a textual one. The concept of two in one has also been reiterated: the milkwoman and Deasy and of course Stephen in his analogy (religious and literary) and in his awareness of himself as double (in Telemachus, Nestor, and Circe especially), and his awareness of being between two worlds in Wandering Rocks. Consequences of the hypothesis are demonstrated.

Sirens allows Joyce to keep focus on the possibilities of a signifying system based on language, and as a result we are more aware of elements of the novel in these terms. When, in Circe, Stephen realizes music is the analogy for

what he has experienced and the experience he will write about, Sirens becomes an example of the rhythm of the whole.

Cyclops also reveals the use of language as a post-linguistic structure. Literature is based on the fact that there is a human society that uses words. But literature exists alongside or above the primary language it is based on. Literature has its own history and conventions. Stephen used his recognition of the manner in which literature modeled the users he was with in Scylla and Charybdis. Here in Cyclops these conventions of literature are raised to a reader's awareness. We thus receive, in the process of Cyclops, a parody of these traditional conventions.

Cyclops reveals the absurdity of the traditional laws of novelistic prose: the transcendental relation of the narrative persona to the events, the contradictions between the material aspect of the text and the abstractive nature of the text (found, for example, in the difference between the time of the narrating and the narrated), and the restrictions placed upon content (shown in the catalogues as a restriction to the truth of one predicate). Cyclops thus demonstrates the revolutionary nature of the hypothesis which had been considered in abduction, for it can change the principles upon which "art" is based (it can include growth, chance, speculation).

Previous criticism about Cyclops reveals a debate based on concepts which the episode itself mocks.<sup>43</sup> What is needed is a simple explanation of how the discrepancies in Cyclops

demonstrate the innovations of the text as a whole. Conventional narration maintains a narrative persona whose "utterances" are "overheard" by a reader. The "oral" aspect involved in the traditional concept of narrative persona contradicts the "written" aspect of the medium. In other words, the material nature of the text itself is not, in traditional narration, functional. The traditional narrator is in a transcendental relation to events. Conventional narration does not include the cognitive process within its signification but extrapolates from reality (referential) an already interpreted set of meanings which are passively transmitted and passively received by the reader as a message. The cognitive system of Ulysses can mock such conventions. The hypothesis already discussed allows for the creation of a process which has a system implicit in the relations among parts (which constitute the whole).

The first-person narrator of *Cyclops* straddles two levels in the same way that Stephen Dedalus straddles two levels. Stephen in *Wandering Rocks* thinks as he looks in the lapidary's window: "Beingless beings. Stop! Throb always without you and the throb always within. Your heart you sing of. I between them. Where? Between two roaring worlds where they swirl, I. Shatter them, one and both. But stun myself too in the blow. Shatter me you who can. Bawd and butcher, were the words. I say! Not yet awhile. A look around" (U 242/238). Stephen is between two worlds: the world in which he has physical being and the world in which

he considers himself a potential author in the process of entelechy. In other words, he is conscious of being both character and author in the existing situation, as previously discussed. The first-person narrator of *Cyclops* is also between two levels: the first level we see is that wherein he is relating a story to an unnamed listener/reader: "I was just passing the time of day with old Troy of the D.M.P. at the corner of Arbour hill there and he damn'd by a bloody sweep came along and he near drove his gear into my eye. I turned around to let him have the weight of my tongue when who should I see dodging along Stony Batter only Joe Hynes" (U 292/297). The second level refers to the presence of the first-person narrator as character. The rest of the episode includes his conversation with Joe Hynes who invites the narrator to Barney Kiernan's pub, which is the setting for the rest of the episode. But he is not conscious of the doubleness. He is shown between two worlds, the general and the particular; the outer and the inner. The two worlds amount to a difference in wording.

Joyce indicates the inherent "silliness" in the traditional notion of narrative point of view. A first person point of view literally requires the introduction of two modes of time into the reading process - a problem usually masked or ignored. A third person point of view literally introduces two planes of space (representing/represented) into the text. And even an omniscient point of view functions as a cognitive presence (like an 'I').

The two levels that both Stephen and the first-person narrator of *Cyclops* 'straddle' are the level of physical presence and the level of the role of authorship. But Stephen is conscious of it as character in the text *Ulysses*, a text which substitutes a system and process in the place of traditional methods of representation. What masks the problem in Stephen's case is the same principle that manifests the problem in the first-person narrator's case. We will look at each issue separately.

So far we have shown that Stephen is presented such that his sensations are highlighted. Natural phenomenon and physical objects that he sees are part of a 'sensory core' which allows Stephen to become more and more aware of his 'doubleness.' In Telemachus he sees his double image, hears the marks or his ashplant call out his name and hears the voice of the sea call out to him twice. The frame of Nestor and the frame of Proteus continue the presentation of his sensations from the embedded higher levels of perception and understanding, respectively. What has been most transparent is the dynamic isomorphism between the narrative context and the sensations he experiences. Its establishment is in the first few paragraphs of the novel: the space of representationality--from where the narrator writes--has two basic characteristics. First it is in a situation of the mocker being mocked that Stephen is introduced. Second, what words go through Stephen's mind and what he senses interlock with the perception and presentation of increasingly

appropriate sense objects. Stephen by the time of Scylla and Charybdis is in the role of mocking the mockers. He must mock, or most specifically and carefully gently deflate the positions of Best, Russell, Eglinton, and Lyster (and later Buck). The latter have been gathered to hear Stephen's 'theory' and are prepared to be mockers. And if we consider it, the more Stephen demonstrates the hypothesis, the more Stephen's consciousness reveals FORMS of narration: the lyric, and epic, and dramatic frames are all in Scylla and Charybdis. The scripted forms are both attitudes within his mind and part of the objective narration of the episode.

Cyclops manifests the fact that Stephen's presentation and our acceptance of his 'double' position have been based on the interaction of process and system. More importantly it reveals the hidden 'double position' in traditional narration (either in time or in space) which the system and process of Ulysses replace:

--There is a bloody big foxy thief beyond by the garrison church at the corner of Chicken Lane--old Troy was just giving me a wrinkle about him--lifted any God's quantity of tea and sugar to pay three bob a week said he had a farm in the county Down off a hop of my thumb by the name of Moses Herzog over there near heytesbury street

--Circumcised! says Joe.

--Ay, says I. A bit off the top. An old plumber named Geraghty. I'm hanging on to his taw now for the past fortnight and I can't get a penny out of him.

--That the lay you're on now? says Joe.

--Ay, says I. How are the mighty fallen! Collector of bad and doubtful debts. But that's the most notorious bloody robber you'd meet in a day's walk and the face on him all pockmarks would hold a shower of rain. Tell him, says he, I dare him, says he, and I doubledare him to send you round here again or if he

does, says he, I'll have him summonsed up before the court, so will I, for trading without a licence. And he after stuffing himself till he's fit to burst! Jesus, I had to laugh at the little jewy getting his shirt out. He drink me my teas. He eat me my sugars. Because he pay me my moneys?

For nonperishable goods bought of Moses Herzog, of 13 Saint Kevin's parade, Wood quay ward, merchant, hereinafter called the vendor, and sold and delivered to Michael E. Geraghty, Esquire, of 29 Arbour Hill in the city of Dublin, Arran quay ward, gentlemen, hereinafter called the purchases, videlicet, five pounds avoirdupois of first choice tea at three shillings per pound avoirdupois and three pounds avoirdupois of sugar, crushed crystal, at three pence per pound avoirdupois, the said purchaser debtor to the said vendor of one pound five shillings and six pence sterling for value received which amount shall be paid by said purchaser to said vendor in weekly installments every seven calendar days of three shillings and no pence sterling: and the said non-perishable goods shall not be pawned or pledged or sold or otherwise alienated by the said purchaser but shall be and remain and be held to be the sole and exclusive property of the said vendor to be disposed of at his good will and pleasure until the said amount shall have been duly paid by the said purchaser to the said vendor in the manner herein set forth as this day hereby agreed between the said vendor his heirs, successors, trustees and assigns of the one part and the said purchaser, his heirs, successors, trustees and assigns of the other part (U /292-3/287-8; emphasis in Text).

The passage written in the legalistic jargon is a parody of the language of law with its redundant phrasing ("Weekly installments every seven calendar days") unnecessarily long sentences (the whole is one sentence) and heavy formalism. But the passage also conflicts with the information the first-person narrator has presented; the passage thus points out the short-comings of the limited information of the narrator. The graphic nature of the "intrusion" opposes the "oral" nature of what it interrupts. The first-person narrator only knows what has been said, and finds it funny

that Geraghty threatens to sue the vendor Moses Herzog. Yet the parody (the first-person narrator is not aware of) cuts that humor short: Geraghty is being sued in the parody, not Moses Herzog.

The limitations of the first-person narrator are his own prejudices (seen in the humor the source of which is deflated in the parody) and his lack of full information. The parody points to the contradictions which are possible (and possibly factual) in the situation of a (first-person) narrator who is both involved in the action and narrating the action.

The limitations are the motivation of the next parody:

So we went round by the Linenhall barracks and the back of the courthouse talking of one thing or another. Decent fellow Joe when he has it but sure like that he never has it. Jesus, I couldn't get over that bloody foxy Geraghty, the daylight robber. For trading without a licence, says he.

In Inisfail the fair there lies a land, the land of holy Michan. There rises a watchtower beheld of men afar. . . . (U 293/288).

Reference to the humor of Geraghty threatening to sue Herzog, again, immediately precedes the next parody. Limitations of first person narrative authority motivate and precede the parodies. The traditional notions of "persona" are shown as romantic, archaic devices.

But the irony has doubled because of the new information about Joe and the narrator and the narrator's inability to see that, by analogy, he is in Herzog's position. Joe offers to, and initiates the idea of going to Barney Kiernan's, but he never buys a round of drinks and doesn't pay (just the

case of Geraghty). The narrator is strapped with the exchange system and must "pay" (and "appear" somewhat foolish). We can see the intrusive passage is mocking the idealism of the first-person narrator's "transcendental relation" to what he is narrating. Father Conmee was described in these terms in our discussion of *Wandering Rocks* (and Conmee's attitude toward the various couples, plus the knowledge of the reader about the implied meanings of Conmee's thoughts of and attitude toward them are also a partial source for the medieval intrusions about love and the following intrusions about love).

The 'transcendental relation' of a first person narrator to what he narrates motivates the parodies/the intrusions. The parodic intrusions thus implicate the presence of the system of the text within the process of its 'movement' or operations. Signification is an ontological relation. These intrusions point to signification as an ontological in Ulysses (or in a possible ideal text promised by the hypothesis) and mock the limitations of traditional means of representation.

The first-person narrator and the parodies or intrusions, as we have seen, make the reader perceive **RELATIONSHIPS** about the text at a higher level of awareness than would otherwise be possible. Just as in *Calypso* (episode 4) the text began to allow a reader to perceive words as objects, here the text allows a reader to perceive the narrative aspects of the text as objects. This is done

at the perceptual level of a reader's awareness. The nontranscendental status of the "author's persona" is part of the hypothesis which is here demonstrated. If we imagine Escher's lithograph of Drawing Hands we can find an image for the reader's predicament. Reading Cyclops (after the other episodes) is viewing the left hand drawing the right hand drawing the left hand. Each movement from the first-person narrator to the parody and vice versa implicates the system of the whole.

The 'double' beginning of the day at the same time for two characters in Ulysses is indicated in the double account of the beginning of Cyclops. Central ideas or situations of the characters become the content of the intrusions (Stephen and the Black Liz Uncle Leo parody, Bloom and the love loves to love parody) and the discussion of the 'people' within the episode involves the legal responsibilities of an author after publication. The inability to determine a 'fact' in discourse within the episode is itself the topic of conversation and humor. The more we view Cyclops as part of the process of the text the more we see that process placed into the elements of the system which makes it possible. The elements of the system which make the text possible are themselves given self-reference in Cyclops. The hypothesis is a means of providing a work of literature without a single consciousness as a "persona".

Language As Post-Linguistic Structure Affecting Human Behavior (episodes 13-15)

Wandering Rocks, Sirens, and Cyclops reveal language as a post-linguistic structure to a reader. These episodes in the deductive process include considerations introduced in the explication of its conclusion. Language (a word) is more than a mark of reference, and more than an event within a system--whether that system is life (Wandering Rocks), or an aesthetic object (Sirens), or narration. It is what allows us to understand relationships in life, in aesthetic objects, and in narration. It is a tool which allows us to understand objects as independent from language which is cognition-dependent and of a different order than the objects themselves. Real and unreal facts and ideas can thus be discriminated. It is a means of discovering new relationships. It is a discovery of language as the 'unreal' element of semiosis. The indifference of language is what has allowed the process to exist within the novel. The novel itself leads us to this awareness, starting from Stephen's presence in the first episode. In Section II we perceive relationships, including the relationship of language as object and as reference and gradually proceeding to the relationship of language as a whole (as a post-linguistic structure) to life, art, and discourse (which in Ulysses is itself).

In the last episodes of Section II the deductions from the hypothesis are broadened to include the effects such a hypothesis would have on language-users, individually and collectively from both a present (contextual) and historical

(non-contextual) perspective. The previous three episodes have established language as a post-linguistic structure. The final three episodes of Section II lead us to the most basic perception a human can have: an awareness of the effects of this post-linguistic structure of language upon humans. Thus the hypothesis is shown in its full potential.

Nausikaa shows both its positive and negative effects upon individuals. Oxen shows its effects from an historical perspective. Circe shows its positive potential by example: awareness of language as the unreal element of semiosis is revealed as the positive potential. It allows our "sins" to be no longer "clinging" to our souls, as Stephen discusses it in Proteus. We will examine each in more detail before proceeding to Section III of the novel.

Nausikaa occurs at 8 p.m. on Sandymount Strand and is divided into two parts: Gerty MacDowell's sensations as she sits and later becomes aware of the presence of a dark stranger opposite her on the beach; and Bloom's sensations as seen in response to the previous half of the episode. Most important is the language used in revealing their sensations. Unlike the language of Section I which revealed Stephen's thoughts as if language were not a medium of the novel but the actual words of Stephen's thought process that depict actual objects in this view, the language of Nausikaa is reveals the effects of traditional language is used as-a-post-linguistic-structure). We thus perceive Gerty's sensations as effects and reactions to this language. On one hand, she

is an individual whose assimilation of language has determined her perspective on the world. On the other hand, she is a type showing the effect of language on the collective she represents (the type can be understood from a narrow classification--a Dublin woman in a turn of the century role; or from a broader classification--female as has been defined by language).

Language is a post-linguistic structure which affects Gerty. It is a product of various institutions' language, language of people she speaks to every day, language she reads: they all have defined specific roles for her. Her responses to the physical objects around her, to children nearby, to herself and to the stranger are each written in a style which reveals Gerty as a product of language as a post-linguistic structure. And this is what is presented. We feel, because she is shown to respond this way, that it is limiting and therefore negative (though accurate). It is reinforced by our never being given Gerty except as a product of language.

She thinks of her surroundings (the first lines of Nausikaa):

The summer evening had begun to fold the world in its mysterious embrace. Far away in the west the sun was setting and the last glow of all too fleeting day lingered lovingly on sea and strand, on the proud promontory of dear old Howth guarding as ever the waters of the bay, on the weedgrown rocks along Sandymount shore and, last but not least, on the quiet church whence there streamed forth at times upon the stillness the voice of prayer to her who is in her pure radiance a beacon ever to the stormtossed heart of man, Mary, star of the sea. (U 346/340).

"Embrace . . . guarding . . . last but not least . . . voice of prayer to . . . her pure radiance . . . to the stormtossed heart of man": we are aware of the presence of a woman by the language--no pronoun refers to the presence of any observer. We are thus making judgements that reveal the effect of language upon individuals even before one is shown. The cliché "last but not least" encourages the negative judgment as it allows for the bathos of this deflated language to comment on its implied human perspective: Gerty.

When she notices her three friends she sees them according to what language (a post-linguistic structure) allows her to see. She is conditioned, it seems, down to her senses. This is an important effect seen throughout the episode. Here are her 'sensations':

Tommy and Jacky Caffrey were twins, scarce four years old and very noisy and spoiled twins sometimes but for all that darling little fellows with bright merry faces and endearing ways (U 346/340).

This is 'how' she 'sees' them. She then is shown as she has been conditioned to respond with emotion to the human situation:

Cissy Caffrey cuddled the wee chap for she was awfully fond of children, so patient with little sufferers and Tommy Caffrey could never get to take his castor oil unless it was Cissy Caffrey that held his nose and promised him the scatty heel of the loaf of bread (U 346/340).

She has the choice of preventing this conditioning; she can build on her own reactions which do come through the episode: she loses patience with the rucous behavior of the twins and "wished to goodness they would take their

squalling baby home out of that and not get on her nerves," but she returns to her safe conditioned "dreamworld" and thinks of 'salvation.' She mixes up her ability to discriminate, allows herself the 'bliss of ignorance.'

The glaring discrepancies between what is 'real' and what is 'ideal' are the result of the language, which has been called "that of a consumer or producer of female pulp fiction."<sup>44</sup> She uses language to hide her flirtation from herself: like the poem clipped out of the paper in the drawer of her toilettable: "Art thou real, my ideal?" (U 364/357). She blocks out thoughts about reality, hoping with her 'found' language to find that ideal real for herself. But both are 'mad' and her freedom is like her flirtation--severely limiting her ability to make discriminations that would lead to her sense of self, ability to cope with reality on its own terms:

She would make the great sacrifice. Her every effort would be to share his thoughts. Dearer than the whole world would she be to him and gild his days with happiness. There was the all important question and she was dying to know was he a married man or a widower who had lost his wife or some tragedy like the nobleman with the foreign name from the land of song had to have her put into a madhouse, cruel only to be kind. But even if--what then? Would it make a very great difference? (U 364/358).

No, it would not make a difference. She is unable to verbally imagine a relationship equal to her hidden feelings: "They would be just good friends like a big brother and sister without all that other in spite of the conventions of Society with a big ess" (U 364/358).

Despite her raising her skirt for the stranger, the chapter ends with "Gerty MacDowell [who] . . . noticed at

once that that foreign gentlemen that was sitting on the rocks looking was

Cuckoo.

Cuckoo.

Cuckoo" (U 382/376).

But it is she who found no difference between the madness of the woman who had to be put in a madhouse in the tragedy and her own condition.

The discrepancy between the real and the ideal is sicklied over with the language she allows to act as a cover. She allows language to obfuscate both the "real and the unreal". She is as much a producer as a consumer of the 'language-as-post-linguistic-structure.' She never uses language to make the discrimination that would allow her to change her situation. She hides her own actions from her consciousness with her language.

The section on Bloom contains the same language previously used to portray his thoughts. "Didn't let her see me in profile. Still, you never know. Pretty girls and ugly men marrying. Beauty and the beast. Besides I can't be so if Molly," and his thoughts circle around Molly as he masturbates. He becomes more excited as he considers her in the role of misbehaving: "Why not? Suppose he gave her money. Why not? All a prejudice. She's worth ten, fifteen, more a pound" (U 369/363)).

His vivid imagination has created the event between Molly and Blazes Boylan. And as he allows himself, with

pleasure, to consider their imagined climax he experiences his own:

Bold hand. Mrs. Marion. Did I forget to write address on that letter like the postcard I sent to Flynn. And the day I went to Drimmie's without a necktie. Wrangle with Molly it was put me off. No, I remember Richie Goulding. . . . Funny my watch stopped at half past four. Dust. Shark liver oil they use to clean could do it myself. Save. Was that just when he, she?

O, he did. Into her. She did. Done.

Ah!

Mr. Bloom with careful had recomposed his wet shirt.  
(U 370/363).

Bloom creates the event for his own pleasure. Upon the fact that Blazes wrote Marion a letter stating that he would bring the programme (at four), Bloom "creates" the "actual" encounter between the two; as time progresses he is convinced that Blazes is out to seduce Molly/has seduced Molly.

Bloom is much like Gerty. He takes no action that would interfere with his imaginary world containing the liaison. He enjoys 'not knowing.' Both Bloom and Gerty are in what Deely calls an "out-group experience of post-linguistic structures." Both experiences are given, and once given in the text, can be reintroduced as 'real' in the text. The liaison between Molly and Bloom can thus be reintroduced as real in the text, which is what happens. Molly's thoughts of Blazes only confirm the relation between "imaginary" and "real" in the previous episodes. The status of Molly's thoughts has never included the possibility that she only imagines their relationship, but it could.

Bloom, because he is in this kind of 'out-group experience' can see himself as others see him: "See

ourselves as others see us. So long as women don't mock what matter? That's the way to find out. Ask yourself who is he now. The Mystery Man on the Beach, prize titbit story by Mr. Leopold Bloom." (U 376/369).

Unlike Gerty, Bloom can recognize this experience as what it is. He can thus 'read' his position. His 'reading' of natural phenomena allows him to correctly predict what will happen and to alter his course of behavior, whether it is rain or Molly's encounter with Blazes. "Signs of rain it is. The royal reader" (U 376/369). Before he dozes on the strand, partially, he re-evaluates his relationship with Molly as he 'interprets' objects around him. "Looks like a phantom ship. No. Wait. Trees are they" (U 376/369). He thinks of when he first kisses Molly at Mat Dillon's, the charades at Dolphin's Barn. "June that was too. The year returns. History repeats itself" (U 376-7/370). He remembers why Molly loves him: "Looking out over the sea she told me. Evening like this, but clear, no clouds. I always thought I'd marry a lord or a gentleman with a private yacht. Buenas noches, sonorita. El hombre ama la muchacha hermosa. Why me? Because you were so foreign from the others" (U 380/373). He is still foreign from the others, and Molly still thinks of him as such in her own soliloquy. In Nausikaa, Bloom is foreign not only in terms of his heritage or race but also in terms of what is happening on this day which keeps him apart from his wife. And his ability to recognize his position as an 'out-group'

experience is an important part of his ability to adapt. It allows him to ask Molly for eggs, as we find out later. The changes are signs for 'the royal reader.' And the final time we see Bloom in language which reveals his thoughts and feelings is here in Nausikaa. Unlike Gerty, he can fling 'his wooden pen away.' And as he dozes half in dream, "she noticed at once . . . that foreign gentlemen" (U 382/376). It defines him positively, and her negatively.

Language as a post-linguistic experience affects Bloom and Gerty. The writing of Gerty's experience shows her inability to 'read' her own position and comments on Bloom's positive ability. Their 'out-group' experiences are opposed.

Oxen of the Sun keeps the readers' perceptions on language relations. The structure of the episode is a 'retrogressive metamorphosis' (U 394/387) of the episodes of Ulysses. As Stephen and Bloom finally meet at the same place, the National Maternity Hospital, for different reasons, the language makes us recall the progression or process that has brought us here. As the history of languages is paraded in a series of imitations of styles from Latin to modern slang, we find that "as the ends and ultimates of all things accord in some mean and measure with their inceptions and originals, that same multiplicit concordance which leads forth growth from birth accomplishing by a retrogressive metamorphosis that minishing and ablation towards the final which is agreeable unto nature so is it with our subsolar being" (U 394/387). In this episode we

have reference to the tower and Haine's 'history is to blame' (Telemachus), the siamese twins (U Nestor); the 'adiaphane' and the 'darkness is in our souls' in the 'blind' fancy of the drinkers (U 394-6/387; P proteus); Milly and Alec Bannon (U 397.390; Calypso); Lenehan on Throwaway (U 415/408; Lestrygonians); reference to Patk. Dignam in his grave (U 396/390; Hades); reference to the two papers in Aeolus; the motivation for Bloom's appearance and reference to him as canvasser in Lestrygonians; the message from Scylla "The sentimentalist is he who would enjoy without incurring the immense debtorship for a thing done" and the theme "himself the ghost of his own father" (U 412/405); from Wandering Rocks) the basis for a new version of Father Conmee wherein the imaginary relation about the couple is given its real basis by Madden (U 415-6/408-9); Cyclops is re-imaged with a pun on the tree catalogue in "deciduously" (U 426/418) and also in the ending references to both Elijah and the use of slang--and so it goes. Literally "time's ruins build eternity's mansions" (391/385) for "the high hall of Horne's house had never beheld an assembly so representative and so varied nor had the old rafters of the establishment ever listened to a language so encyclopaedic" (U 417/408).

The characters and the language used to portray their actions, changing through centuries of changes of use as readers have been changed through countless episodes of changes of styles, are "yet moulded in prophetic grace of structure . . . parallax stalks behind" (U 414/407).

Stephen hears The Calmer's words (Bloom's) at the "noise in the street" of lightning, but did he hear a god Bringforth or a natural phenomenon, the text asks, not to answer:

Heard he then in that clap the voice of the god Bringforth or, what Calmer said, a hubbub of Phenomenon? Heard? Why, he could not but hear unless he had plugged up the tube Understanding (which he had not done). For through that tube he saw that he was in the land of Phenomenon where he must for a certain one day die as he was like the rest too a passing show (U 395/389).

Whether he heard the god of creation or a natural phenomenon earlier in Telemachus is thus avoided, though, we are next told of his belief in the "land of promise" and enjoy the passing show of the episode. Of course this is a demonstration of the hypothesis.

As the episode continues "the words of their tumultuary discussions were difficultly understood and not often nice" (U 407/400). "The "voices blend and fuse in silence . . . that is the infinite of space" (U 414/407). And when Stephen hollers "Burke's" the "end comes suddenly. Enter that antechamber of birth" (U 422/415). The voices do blend, as has been foreshadowed in Scylla (U 192).

Oxen of the Sun is a lively recapitulation and transformation of the novel. A reader perceives the themes and the process of the episodes as having been the means to an end, which is self-consciously pointed to by the text. We feel the epical quality of the text, a quality wherein the image of the artist is in mediate relation to others and to himself. The epical quality has been a procession of styles of language, just as the styles of literature in history have

reminded us. Rather than a representation of either a literary style or of a scene within the book, we have been given a demonstration of the process of language through time (implied by the hypothesis) but here it is language as a whole and all time. In itself we have the "spirit of the maker . . . that . . . becomes the word that shall not pass away" (U 391).

Circe is the culmination of this process, for language itself is shown to be the 'unreal element of semiosis.' A Reader is placed in the ultimate reaches of "perception" where the 'real and the unreal' are not distinguished, where the ultimate goal of Stephen: the expression of the unexpressible is achieved.

Circe culminates the perception process in Section II with a dramatization of its characteristics. Objects such as Bloom's soap, a fan, the and doorhandle speak. Relations such as "The End of the World" speak as well as characters. Objects and relations are seen as equivalent in perception and the text reveals the "unreal dimension" of this experience. Deely stresses the importance of this aspect and its revolutionary importance:

It is true that the unreal relational components of human experience only exist through the cognitive functioning of living individuals, and in this sense the cultural system does have actuality only in and from social interaction. But this 'unreal' dimension of experience recognizable as such, and providing 'a substitute for experience which can be passed on [through language] ad infinitum in time and space' precisely because it is cognitively separable from this or that specific concrete individuals with whose activity it is here and now -- or was there and then -- defacto identified, is in itself something distinct from

even though immanent within social interaction and social system. It is then this unreal dimension which is the ground of the cumulative transmission of learning that makes human society as enculturated different in kind from the animal societies that cannot jump the links of individuals connecting generations. This is one of the points of view . . . that reveals most sharply the revolutionary importance of semiotics for anthropology, and for clarifying the foundations of the human sciences generally.<sup>44</sup>

Presenting as distinct from social interaction this aspect of the 'unreal' dimension of experience thus allows a transmission of learning that permits readers of Ulysses to understand the process of semiosis. It can be thought about and represented. Once represented it can be the force of further awareness, a force of change. More importantly, Joyce opens new possibilities for the use of language and for our potential to understand and create and give a new order to our experiences in society.

Stephen in Proteus identified with Kevan Egan's attempts to reform and be a revolutionary, Proteus implied that the use of "signs" could teach us to break the spell that binds us, just as Proteus in the Odyssey revealed the same to Menelaus. From Calypso to Circe the process of cognition most important to showing this 'unreal dimension of human experience' was step by step revealed to a reader. It is a process of understanding what language is and what it can do. Perception of language relations in textual, referential objects included elements of the unreal, elements of the shaping effect of institutions, and so on, so that Circe reads as an awareness. Giving expression to this 'unreal'

aspect of experience, a reader knows, is the major (or one of the major) goal or end of the hypothesis. It is the secret known to all men/women. It is the secret of art and of nature: a process of "awareness." It is "darkness" in our souls, which Stephen understands in Proteus.

Stephen in Circe is concerned with finding a voiceless system that would allow him as author to express the new content of experience, and he tries the art of gesture. What he is looking for is being read; and as he realizes that with "No voice. I am a most finished artist" he has expressed a double meaning for a reader. First, the meaning descriptive of the text is that the author's voice is not present as in traditional, representational text, but absent/present through writing as signification. As Stephen, then, may be learning the final principle about artistic processes which are unvoiced (or grammatological); the system is suggesting the second meaning. The second meaning of Stephen's comment that with "No voice" he is a "finished artist" suggests the importance of there being present an image of an artist within such a text through whom the operation occurs. The operation of semiosis or communication through signs thus depends on "Sounds solid: made by the mallet of Los Demiurgos" as Stephen thinks in Proteus; it depends on "acting speech" or ventriloquy. Even Derrida's principle of deconstruction requires a voiced text for it to work. Shakespeare in Circe speaks in "dignified ventriloquy" (U 567).

The voiceless system requires a double image of the artist within the work. Stephen as the double he felt himself to be in Telemachus and double he slightly distanced in Nestor when Sargent was like his Siamese twin in the library) is in Circe given his principle of DOUBLENESS in Philip Sober and Philip Drunk, who are two in one. The same person but two personalities and two functions in two different times. "Both are masked with Matthew Arnolds's face" and they are recalled with the lawnmower imagined by the text/Stephen in Telemachus: "A deaf gardener, aproned, masked with Matthew Arnold's fact, pushes his mower on the sombre lawn watching narrowly the dancing motes of grasshalms" (U 9/7). In Telemachus the deaf gardener conducts two contradictory experiences in one time frame--or two separate processes from a higher level of cognition. To mow the grass and to watch the grass's stems as dust falls around them implies the double functioning of semiosis as processual and systematic. Brought out in the first episode, in Circe the principle becomes a method of an artist being "Out of it now. (To himself.) Clever" (U 519/508). Philip and Philip (Sober and Drunk) respond (being that to which Stephen speaks when speaking to himself): "(Their lawnmowers purring with a rigadon of grasshalms.) Clever ever. Out of it. Out of it. By the way have you the book, the thing, the ashplant? Yes, there it, yes. Cleverever outofitnow. Keep in condition. Do like us" (U 519/508). The ashplant is the transformer of differences that allows Stephen in Telemachus

to hear a mark on the path call out his name. It is as if in this retrospective arrangement which is necessitated in Circe Stephen has been reading the book of himself or has the book to be written (as we have read it) in his hands with the 'thing' (a pencil, or a pen, or a bottle of ink containing the holy spirit).

Because Ulysses is a system with a process (as we have been describing it) it can image its own inherent deconstructive principle, for that principle is semiosis seen in reverse from the point of view of semiotics (or the signification of the whole). The relationship between system and process is itself a dynamic interrelationship, as described in the next chapter; the system is equivalent to semiotics or signification of the whole while the process is semiosis.

The terminology is least important. Without any meta-words the text itself describes this process. Stephen speaks of his birth (U 562/548). His death has imaginative occurred in Telemachus. He speaks of the "first entelechy, the structural rhythm" (U 432/425) and of "synechdoche. Part for the whole" (U 588/572), principles with which we have established the characteristics of a well-constructed system in the second chapter. Clearly these are consequences of the hypothesis established in Telemachus at "Chrysostomos."

Circe allows a reader to experience the "Awareness" of perception which the text has been leading toward; it is an awareness of the proportioning of present and absent objects

semiotically via icons or ideas and images (as Deely has described) -- it is the symbol of deduction - an awareness dramatized as an awareness about this 'unreal' aspect of cognition. What Joyce has done is being just now discussed in various semiotic or deconstructionist circles; but the extent to which Joyce has given expression to a new way of viewing the world, though part of his reputation, has never been fully accessed. Nor has it been considered that a literary work such as Ulysses could have within it an implicit treatise on semiotics. Joyce rivals Peirce, but in an aesthetic rather than a scientific medium.

The experiences presented in *Circe* are transformations of previous words, thoughts, themes and new experiences. They are "occasioned" at Bella Cohen's brothel in the 'nighttown' district of Dublin. There the setting is appropo - to the revelation of the secrets of characters, the text, and language itself, and to the now familiar Barthian concept of writing as jouissance. Bloom's 'unreal' experiences and those of the other characters of Dublin complete the full set of perceptual experiences (including the 'unreal') that occur during cognition, or a process of semiosis. The structure of the book itself dances: the hours of the day, labeled as they appear in the schema, "waltz in their places, turning, advancing to each other, shaping their curves, bowing vis a vis" (U 561). The description fits the dynamics of a well-constructed system to a T: "Each subassembly receives and sends information to and from other level" thus creating

a 'dynamic equilibrium,' like the waltz of the hours of the day just described.

There is much that must remain unsaid about the deduction in this section of Ulysses. For example, the sorites in the second section of Ulysses demonstrate that "from any proposition whatever, without a second, an endless series of necessary consequences can be deduced." (3.641). They point to the fallacy in ordinary logic, or non-relational logic, which requires two propositions for the deduction of a conclusion. They affirm the ability of the text to take the proposition (the hypothesis of abduction) that the natural process is like the artistic process and deduce an endless series of necessary consequences from it. The sorites, found in the famous catalogues of Ulysses, are a means of understanding the different kind of system which operates in the text. A sorite is a system whose truth consists of "the truth of one predicate for any one of its members." A set's "members have other relations to one another" and are a continuum. In a set "the truth of anything consists in the truth of different predicates" (3.637). The continuum of Ulysses's episodes is based upon the fact that the objects within each part (or episode) are sorites. This is based on the fact that "if we conceive an object to be a collective whole, but to be in such a way that it has no part which is not itself a collective whole in the same way, then, if the collection is of the nature of a sorite, it is a general, whose parts are distinguished merely

as having additional characters" (3.637). And this brings us back to the topo-sensitive nature of the details in Ulysses, especially in the first section where the part constituted a whole. Of course, Joyce himself mused upon such a possibility of the parts constituting the whole in his Aesthetic Notebook.

Deduction in this section of Ulysses can be discussed differently than what has been offered in this section. For example, following the lead of Peirce, the demonstration of the hypothesis can be corollarial (a corollarial demonstration "limits itself to considerations already introduced or else involved in the Explication of its conclusion") or it can be Theorematic (which "resorts to a more complicated process of thought") (6.471). Such a study of section II as an explication and corollarial/theorematic demonstration of the hypothesis in section I would be possible - but it is left to others with a grasp of Theorematic reasoning.

I have chosen to describe the manner in which language becomes an object of thought in section II for various reasons. First, it explains the progression in the depiction of language as material. Second, it clearly illustrates the difference between the two sections. Previous studies the first three to six episodes of the second section as part of an "initial style." Here the difference between the two sections of the novel becomes apparent, and the apparent difference in the use of words as thing and as concept itself

has a functional reason--to depict the process of mind, or of inquiry, from abduction to deduction. And third, it emphasizes the new approach to representation opened up with the hypothesis. It emphasizes the ability of Joyce's novel (and the ideas of Stephen within the novel) to depict relations which are quite revolutionary given the history of the novel. These relations include language as a self-reflexive signifying system and the effect of language as a post-linguistic structure. Language itself is shown as a cognition-dependent relation between an object and a thought.

John Deely's ideas on the three levels of cognitive life which are equivalent to signification or the process of semiosis have been used throughout. His labeling of the first stage as sensation is appropo to abduction: Peirce himself states that abduction is of the nature of sensation (2.711). His labeling of the second stage as perception is appropo to deduction; in both the first affects the second, in both there is a proportioning of icons, indexes, and symbols. Of course, Joyce himself, in the Aesthetic Notebook, depicts the equivalent these three stages, as we have discussed in chapter two.

At this point it is hoped that deduction as been shown to be operative in the second section of Ulysses. Future studies may further establish the importance of deduction and its relation to other aspects of the text. The concept is a new one in Joyce studies, and it provides a means of understanding the problematic progression of styles in the

eighteen episodes of the novel. Keeping in mind the Play of Musement so far, let us continue with the final stage of inquiry: induction.

iii

Section III of Ulysses reveals the inductive mode of inquiry in the novel's Play of Musement. Induction ascertains how far the consequents (from II) accord with experience. It judges whether the hypothesis (I) is correct, needs modification, or must be rejected. It begins with classification "by which general ideas are attached to objects of experience." Then there are testing probations of two kinds: simple enumeration and gradual induction "which makes a new estimate of the proportion of truth in the hypothesis with every new instance" (6.473). The final, third stage of induction appraises the probations and passes judgment on the whole. Its primary characteristic is an awareness that objects of our experience do not reduce to our experience of them. The three episodes which conclude Ulysses accomplish that purpose.

Eumaeus is a delightful account of language which will not reduce to the characters' experiences in the cabman's shelter; it is in Foucault's words a heterotopia, where syntax has been destroyed in advance.<sup>45</sup> Ithaca is a catechism between the facts and objects which will not reduce to our experience of them and the mind which understands that there is more to our experience than our cognition. It is a

philosophy which considers the relationships, facts, objects, ideas, possibilities, and movements of the characters, text, and the universe implied by the text. Penelope is the "counter-sign" to the text. It is the recognition of the text that there is a physical universe (textual and non-textual) which will never reduce to what has been previously thought. Molly's monologue, because of the previous episodes' stages of inquiry ensures that "the deliberately formed, self-analyzing habit--self analyzing because formed by the aid of analysis of the exercises that nourished it - is the living definition, the veritable and final logical interpretant" (5.491) of Ulysses.

The third section of Ulysses brings the reader to an understanding that reaffirms the reality of physical objects. In the first section we experience Stephen's sensation of the various physical objects before him, yet that process of sensation includes Stephen's thoughts which are emphasized - the text as object is suppressed. The 'frogmen' seem to be part of an awareness: part real and part 'seen' through Stephen's eyes. In the second section of Ulysses, we proportion physical objects in real Dublin with physical elements of the text, but unreal relationships relationships based on the cognitive process itself - continually bring us to an awareness derived from wrestling with the physically real objects and the cognition-dependent (possibly 'unreal') relations of the character and of the process itself. Finally in the third section of Ulysses a reader finds the

text affirming the independence of physical reality apart from cognition. Because of the previous two sections, for most readers, reality becomes new. The text, the world of Dublin 1904, and the world of the reader seem "new" somehow 'different' than they had previously been existing. The reason for this is that the experience of signification has been presented in such an organized way that it opens the world for each person's creative play with the universe of objects and relations. The experience of semiosis can be repeated.

Section III thus becomes the affirmation of physical reality; it does not become a presentation of it. The difference between affirmation and presentation, or between language and things is increased. Language and affirmation are quite different than the actual things in physical reality. And this only increases our motivation to understand language, which is cognition-dependent, and physical reality, which can be cognition-independent. Induction, in Eumaeus, ascertains how far the consequents (II) of the hypothesis (I) accord with experience. The consequents in Section II do accord rather well with actual experience in the artistic process. Eumaeus emphasizes that the only difference between our experience of deduction and our experience of the real world is the material quality of the text itself: the language of the text.

Eumaeus does attach objects of experience to general ideas. Thus the first part of the inductive process -

classification - is emphasized. The result of the massive classification in Eumaeus which attaches objects of experience to general ideas is one of the most humorous episodes of the novel. Classification itself is thus the source of Eumaeus' humor. Attaching general ideas to these objects of experience emphasizes the potential each object has for being a story of its own. Everyone knows that Stephen and Bloom are tired from the day's experiences and are possibly somewhat inebriated: this of course motivates the whole procedure, making it somewhat realistic to the characters' states of mind.

The episode begins:

Preparatory to anything else Mr. Bloom brushed off the greater bulk of the shaving and handed Stephen the hat and ashplant and bucked him up generally in orthodox Samaritan fashion, which he very badly needed (U 613/597).

Greater: more comparatives are used in Eumaeus than in other episodes for the simple reason that they pose the difference between language and the physical reality suggested. A comparative posits an agreed upon standard of measurement known (but not stated). The errors of classifying - general ideas and objects of experience - constantly come to our attention; the standard of measurement used to classify things becomes an index of what has been left out.

Generally? What does it modify - how Bloom "bucked him up" or Bloom's "orthodox Samaritan fashion?" The first and last words highlight the authoritative tone necessary to oppose a

reality which "has a mind of its own." Because objects of experience are used to evaluate previous material induction, is frequently made bathetic. A reader gets the feeling that language has a loose grasp on physical reality - and this is the main point of the episode and the section, for physical reality is cognition-independent.

The next sentence of the episode has such tremendous shifts that it possesses the topography of a linguistic "heterotopia":

His (Stephen's) mind was not exactly what you would call wandering but a bit unsteady and on his expressed desire for some beverage to drink Mr. Bloom, in view of the hour it was and there being no pumps of Vartry water available for their abolutions, let alone drinking purposes, hit upon an expedient by suggesting, off the reel, the propriety of the cabman's shelter, as it was called, hardly a stonethrow away near Butt Bridge, where they might hit upon some drinkables in the shape of a milk and soda or a mineral (U 613/597).

The facts are that Stephen wants something to drink and Bloom suggests the cabman's shelter. Whether the phrases, cliches, and shifts in tone are Bloom's is a question that singles out the issue of language as it mediates between an object and a mind. If he would not have said "drinkables in the shape of a milk . . ." then it is the language of the text announcing the difficulty of classifying things in reality. As it was called is a phrase used countless times in this episode to show the near impossibility involved in naming an object.

The syntax severs modifiers from the content they modify: ". . . conveyance of some description which would answer in their then condition, both of them being e. d. ed,

particularly Stephen, always assuming that there was such a thing to be found" (U 613/597). The distance between modifier and modified contains a detour: "e. d. ed" which is based on the cognition-dependent nature of the language of the text which can introduce a previous relation into the text - and after Circe the dangling modifier in question is not without its own effect. Things may be unreal, a product of one's mind. But "e. d. ed" also stresses the independent, material quality of language. Bloom, for example, could not even have pronounced it and been understood. On one level language is the object of experience, on another it is the mediating factor between reality and conventional notions. On one hand it is an idea or string of ideas, on the other it is a thing or group of material objects. Either way, emphasis is placed upon classification because of the evident difficulty.

The ungrammaticality of various sentences in Eumaeus place the reader between the narrating language and the objects or items narrated:

Although unusual in the Dublin area,  
 he knew that it was not by any means unknown for  
 desperadoes who had next to nothing to live on to  
 be about waylaying and generally terrorizing  
 peaceable pedestrians by placing a pistol at their  
 head in some secluded spot outside the city proper,  
 famished loiterers of the Thames embankment  
 category they might be hanging about there or  
 simply marauders ready to decamp with whatever  
 boodle they could in one fell swoop at a  
 moment's notice,

your money or your life,  
leaving you there to point a moral,  
gagged and garotted (U 616/600).

The opening subordinate clause can modify one but not both of  
 the following clauses, the second being ungrammatical in  
 different ways depending on which grammatical possibility is  
 being evaluated; "your money or your life" is a shift in  
 person which may correspond to Bloom's imitation of  
 'marauders.' The final phrase images the position of the  
 reader between language and objects in 'physical reality.'

The characters themselves have trouble with objects:  
 Stephen "surmised in the dark [that they] were pennies,  
erroneously, however, as it turned out" (U 618/602).

The Graphist of Eumaeus seems to be presenting reality  
 as if it were the "accident" or only the appearance of  
 reality while he seems intent upon the process (secret,  
 magic) of material creation. The number of examples which  
 follow, selected on the basis of brevity alone, is meant to  
 stress the frequency of the references to the appearances of  
 things:

. . . the cabman's shelter, as it was called . . .  
 (U 613);

. . . a rather antediluvian specimen of a bun, or so it seemed . . . (U 622);

Tired, seemingly, he ceased. (U 630);

. . . a sentry box, or something like one . . . (U 615);

. . . he seemingly evinced little interest . . .  
(U 619);

. . . the cup of what was temporarily supposed to be called coffee . . . (U 622);

. . . socalled roll . . . (U 623);

. . . without being actually positive, it struck him a great field was to be opened up in the line of opening up . . . (U 627);

. . . possibly perceiving an expression of dubiosity on their faces . . . (U 628);

. . . he had two flasks of presumably ships rum . . .  
(U 638).

Creating even more doubt, at times the appearance or probability is the reality: "Mr. Bloom's sharp ears heard him then expectorate the plug probably (which it was)" (U 639). This technique causes the reader to accept the possibility that what is probable is not necessarily the case. The parenthetical substantiation of probabilities makes the reader temporarily wonder about validity. In the following example, the corroboration of the validity of an absurdity, besides being humorous, makes the reader almost give-up on the possibility of knowing reality: "he was in the habit of ostentatiously sporting in public a suit of brown paper (a fact)" (U 645). Similarly, the clarification of a word, phrase or idea, a technique used rather frequently, causes the reader to generally doubt the reality of things, as in the following example: "they both walked

together along Beaver Street, or, more properly, lane" (U 631). The reader doubts the reality of the situation, in part, because the Graphist, who is obviously conscious of the discrepancy between appearance and reality, and who destroys the reader's natural tendency to accept things for what they are, is humorously intent upon precisely defining reality.

Another technique used is the conjunction of contradictory or opposing facts or ideas. This functions to make the statement seem to be true since, if either part of an either/or statement is true, the whole is true. These alternative explanations shows uncertainty about reality:

the guarded glance of half solicitude, half curiosity, augmented by friendliness, which he gave at Stephen's at present morose expression of features did not throw a flood of light, none at all in fact, on the problem as to whether he had let himself be badly bamboozled, to judge by two or three low-spirited remarks he let drop, or, the other way about, was through the affair, and for some reason or other best known to himself, allowed matters to more or less . . . [ellipses are not mine] (U 621).

This causes the same doubt to be imbedded in the reader's mind, and the reader sees the futile ambition to present reality accurately as comic--a parody of any author's attempt to present (or imitate) reality.

Reality is disparaged by direct contradiction and by the use of negation:

. . . it was not a pleasant outlook, very much the reverse, in fact. (U 618);

. . . he came across what he surmised in the dark were pennies, erroneously, however, as it turned out. (U 618);

Today, in fact, or, to be strictly accurate, on yesterday. (U 620);

He called me a jew, and in a heated fashion, offensively. So I, without deviating from plain facts in the least, told him his God, I mean Christ, was a jew . . . like me, though in reality I'm not. (U 643).

The reverse of reality seems to be as true as reality itself, whatever that is. Today is tomorrow, and Bloom contradicts himself, and, generally, the uncertainty pervading the chapter becomes humorous.

Throughout the chapter the qualities of being sensible and logical are ascribed to Bloom. Bloom "was in complete possession of his faculties" (U 614), but his logic and perception is undercut. The following passage shows Bloom misinterpreting reality (which is, of course, ambiguous):

--Have you seen the Rock of Gibraltar? Mr. Bloom inquired. The sailor grimaced, chewing, in a way that might be read as yes, ay, or no.  
--Ah, you've touched there too, Mr. Bloom said . . . (U 629).

Throughout Eumaeus an objective approach nevertheless is shown to be very subjective. Bloom is "disgustingly sober" (U 614). This subjectivity is the author's realm, his kingdom, and he, the creator, the artist, comments on his work. "His [Skin-the Goat Fitzharris'] inscrutable face, which was really a work of art, a perfect study in itself, begging description, conveyed the impression that he didn't understand one joy of what was going on. Funny very" [emphasis mine] (U 629). He is commenting on his phrase "begging description." The imagination of the artist is the focus of the episode, which centers on his "independences" as much as, or more, than it centers on Stephen and Bloom:

Being a levelheaded individual who could give points to not a few in point of shrewd observation, he also remarked on his very dilapidated hat and slouchy wearing apparel generally, testifying to a chronic impecuniosity. Probably he was one of his hangerson but for the matter of that it was merely a question of one preying on his next-door neighbour all round, in every deep, so to put it, a deeper depth and for the matter of that if the man in the street chanced to be in the dock himself penal servitude, with or without the option of a fine, would be a very rara avis altogether. In any case he had a consummate amount of cool assurance intercepting people at that hour of the night or morning. Pretty thick that was certainly [emphasis mine] (U 618-9).

This mockery of Bloom who is at the time watching at a distance Corley accept money from Stephen has a "deeper deep," -- the Graphist. There are two ways the final remark can be taken. One, the independent Creator of the text views what he is doing as a parody of the artistic process that holds that transubstantiation unrestricted is reality (a parody, therefore, of Stephen's idea in Telemachus). The second possibility is that the Graphist is actually caught up in the "thickness" (and is in a parallel situation to Stephen in Telemachus). If the former is true, which is a possibility, the Graphist is "leaving you [the reader] there to point a moral, gagged and garotted" (U 619). If the latter is true, the Graphist can be seen as similar to the driver at the end of the chapter, who "never said a word, good, bad or indifferent." The rest of the passage is worth repeating for the analogy:

He merely watched the two figures, as he sat on his lowbacked car, both black--one full, one lean--walk towards the railway bridge, to be married by Father Maher. As they at times stopped and walked again, continuing their tete-a-tete . . . while the man in the

sweeper car or you might as well call it in the sleeper car who in any case couldn't possibly hear because they were too far simply sat in his seat near the end of lower Gerdiner Street and looked after their lowbacked car (U 665).

In either case, whether the Graphist does or does not realize the parody he has created, the reader does. And the reader accepts the independent status of the 'Author.' In the next chapter Ithaca, there is no confusion as to whether the intrusive author is caught in the trap of thickness--he is clearly apart and above it all.

Of the approximately 2,300 lines in Eumaeus only approximately 500 are direct dialogue, and most of those lines of direct dialogue are the keeper's or the sailor's. Few of the lines in the chapter are the direct dialogue of Stephen and Bloom; most of what is ascribed to them has been filtered through the imagination, humor, and perspective of the artist. Yet most critics seem to accept the dialogue ascribed to Stephen and Bloom by the 'narrator' as straightforward rather than as ironic and facetious. Anthony Cronin's following remarks epitomize that position:

His [Bloom's] own humour, his irony, his subtlety and his intelligence are, in general easy to underestimate. His mind only works in cliches in the coffee stall scene when he is tired, and it does not seem to have been noticed that he is here making a mistaken attempt to impress Stephen as a sort of literary man and thinker. What he utters<sup>46</sup> are the cliches of editorial journalism . . .

The Graphist's paraphrases of Stephen and Bloom's conversation should be taken with a grain of salt. Mistaking the cliché-ridden paraphrases of the Graphist as Bloom's is a

gross misrepresentation of Bloom. The following is a typical example of the Graphist's use of paraphrase:

The reason he [Bloom] mentioned the fact was that a lot of those policemen, whom he cordially disliked, were admittedly unscrupulous in the service of the Crown and, as Mr. Bloom put it, recalling a case or two in the A Division in Clanbrassil street, prepared to swear a hole through a ten gallon pot. Never on the spot when wanted but in quiet parts of the city, Pembroke Road, for example, the guardians of the law were well in evidence, the obvious reason being they were paid to protect the upper classes. Another thing he commented on was equipping soldiers with firearms or sidearms of any description, liable to go off at any time, which was tantamount to inciting them against civilians should by any chance they fall out over anything. You frittered away your time, he very sensibly maintained, and health and also character besides which the squandermania of the thing, fast women of the demimonde ran away with a lot of L.s.d. into the bargain and the greatest danger of all was who you got drunk with though, touching the much vexed question of stimulants, he relished a glass of choice old wine in season as both nourishing and possessing aperient virtues (notably a good burgundy which he was a staunch believer in) still never beyond a certain point where he invariably drew the line as it simply led to trouble all round to say nothing of your being at the tender mercy of others practically. Most of all he commented adversely on the desertion of Stephen by all his pubhunting confreres but one, a most glaring piece of ratting on the part of his brother medicos under all the circs (U 615).

The Graphist's movement from topic to topic is disorganized, without transition. His insertion of the ironic comment that Bloom (who was just described as being "disgustingly sober") wanted a drink, is inconsistent with Bloom's supposed remarks against the evils of drinking in this paragraph of Bloom's "word of caution re the dangers of nighttown." There is no direct presentation of Bloom's thoughts or ideas, as in *Lestrygonians*. Here the Graphist tries to present Bloom's ideas, and in doing so, undercuts

them. We have already seen the Graphist's penchant for "facetious proclivities," his overt subjectivity and his digressions. The focus of attention in this passage, and generally, in the whole episode, is on the Graphist and his attempt to convey reality. What we are reading is his/her style, perception, and organization of details. The Graphist is purposely used by Joyce to lightly mock the idea of a Graphist's/artist's seriously attempting to objectively and rationally present reality and to undercut Stephen and Bloom's supposed consubstantiation. The mainstay for the parody of the process of artistic creation/transubstantiation is the cliché.

Many critics such as Cronin have commented on the innundation of Eumaeus with clichés. Frank Budgen states, "The clichés are as many and as well worn as the good corporation cobblestones on which they walk."<sup>47</sup> This is true. Yet we can see that the technique is related to the ironic representation of transubstantiation in Eumaeus; it is a comment on the process of artistic creation. Assuming reality cannot be directly shared with a reader, we are left with only the appearances of reality--verbal representations which, in themselves, distort reality. A word is a convention, not the thing itself--a convention of general usage like a cliché. It distances us from actual experience just as point of view increases the distancing of the reader from reality. Because we are left in art with the "accidents" of transubstantiation, and because an author or narrator uses

reality as a medium for creating or showing significance, language is, to say the least, an inaccurate way to present reality which is but a shadow. Language is an "accident" of a larger "accident" (substances), and it therefore becomes a toy or a prop of an artist. There is "nothing . . . but put a good face on the matter" (U 613).

In Eumaeus words become masks. The reader wonders, like the Graphist, "if the whole thing wasn't a complete fabrication from start to finish" (U 617), for he/she "wouldn't vouch for the actual facts, which quite possibly there wasn't one vestige of truth in" (U 621). The chapter itself is "A hocuspocus of conflicting evidence that candidly you couldn't remotely . . ." [ellipses not mine] (U 643). Why? The Graphist is independent of the written word, the words are not necessarily mimetic, and, after all, the characters are "characters," literally.

The following direct dialogue between Stephen and Bloom is a microcosm of the idea of Eumaeus:

--You, as a good catholic, he [Bloom] observed, talking of body and soul, believe in the soul. Or do you mean the intelligence, the brainpower as such, as distinct from any outside object, the table, let us say, that cup? . . .

--They tell me [Stephen] on the best authority it is a simply substance and therefore incorruptible. It would be immortal, I understand, but for the possibility of its annihilation by its First Cause, Who, from all I can hear, is quite capable of adding that to the number of His other practical jokes, corruptio per se and corruptio per accidens both being excluded by court etiquette (U 633).

In Eumaeus, the unwritten rule that an artist or ("First Cause") should not annihilate "the simple substance . . .

incorruptible" is broken. There is no simple substance, and no substance is incorruptible. This first 'practical joke' of the artist is that of reversing the meaning (or "soul") - to look at the source in material things and it opens up the realm of humor where things are corrupted per se and corrupted per accidens, by the nature of their being and by the "accident" of the Graphist (his trace - having written). Per accidens calls to mind the belief that in transubstantiation the visible eucharist is an "accident," since all of the bread and wine were to have become the body and blood of Christ. In Eumaeus, the eucharist of an artist, his artwork, is shown to be an "accident." The material aspect of writing is of what has come before, especially the consubstantiality of Stephen and Bloom, has been destroyed by the narrator. Despite the seriousness involved in the process of creation, and despite the possibility of the fact that a real transubstantiation (or reality of transcendent meaning which is separate from the body of matter) has occurred, the reader (and a knowing author) is aware that the characters are separate and that their physicality undercuts their consubstantiation. The same is true at the textual level with the material aspect of the sign. Transubstantiation has become a practical joke. The sailor told Stephen and Bloom: "--I seen a Chinese one time . . . that had little pills like putty and he put them in the water and they opened, and every pill was something different. One was a ship, another was a house, another was

a flower. Cooks rats in your soup, he appetisingly added, the Chinese does" (U 628). The "little pills of putty" or reality, when put into the water, or imagination of an artist, can transform itself into anything. An artist, like the Chinese cook, who allows this transformation to happen and who cannot predict what will pop out of the putty (as in Eumaeus) cannot exclude the possibility of there being a rat or a vermin that spoils the soup or the work of art.

According to a literal interpretation the religious doctrine of transubstantiation those who receive bread and wine at communion are literally cannibals. The post-card the sailor takes out of his "chamber of horrors, otherwise pocket" (U 629) and shows Stephen and Bloom is of man eaters in Peru that eat corpses and the livers of horses. In a sense, Stephen and Bloom are shown images of themselves. Stephen calls himself "Chewer of corpses" (U 70) in Telemachus, and Bloom has eaten liver in Proteus.

Just as transubstantiation has been made a practical joke, the consubstantiation of Stephen and Bloom in Eumaeus is undercut. The motif of bogus appearances works to achieve this end. If Stephen and Bloom are unified, i.e., of one and the same substance, then do their separate bodies exist as one or two?

. . . Stephen mumbled [to Bloom] in a noncommittal accent, their two or four eyes conversing . . . (U 643).

The pronoun he, which refers to both, is specified by the narrator with a similar humorous effect:

His (Stephen's) (U 613), and  
He (Bloom) (U 642).

One is not sure who one is in this chapter, literally speaking. W. B. Murphy, the sailor, "assuming he was the person he represented himself to be and not sailing under false colours" (U 626), told such marvelous stories that his stories and his genuineness are doubted:

--Our mutual friend's stories are like himself, Mr Bloom, apropos of knives, remarked to his confidante sotto voce. Do you think they are genuine? He could spin those yarns for hours on end all night long and lie like old boots. Look at him. (U 635).

Even the tatoo on his chest has a dual appearance. The "young man's side-face looking frowningly rather" (U 631), who was "cursing a mate" (U 631), when stretched, was "laughing at a yarn" (U 631). The name of Murphy, the sailor, is mentioned in conjunction with Shakespeare: "Shakespeares were as common as Murphies. What's in a name?" (U 622). He is referred to as the "veritable son of a seacock" (U 640). (The Chinese seacock was previously mentioned as being able to produce all kinds of unexpected transformations.) At the end of the chapter after Stephen and Bloom leave the shelter they walk past the sentrybox where

the municipal supernumerary, ex-Gumley, was still to all intents and purposes wrapped in the arms of Murphy, as the adage has it, dreaming of fresh fields and pastures new (U 660).

The union of these two men relates to an ambiguous passage concerning the time Murphy left the shelter to relieve himself (" . . . the noise of his bilgewater some little time subsequently splashing on the ground where it apparently woke a horse of the cabrank.")

A hoof scooped anyway for new foothold after sleep and harness jingled. Slightly disturbed in his sentrybox by the brazier of live coke, the watcher of the corporation, who, though now broken down and fast breaking up, was none other in stern reality than the Gumley aforesaid, now practically on the parish rates . . . shifted about and shuffled in his box before composing his limbs again in the arms of Morpheus (p. 639).

Morpheus, one of the numerous sons of Somnus, the King of Sleep who lives in a cave, is the most expert in counterfeiting. One interpretation of both of these passages is that Gumley was simply in the arms of sleep. The wording of these passages and the final substitution of Murphy's name for Morpheus suggests that the idea of a purely literal "physical consubstantiation" is workable. This interpretation is possible because it opens up another realm of humor in an area that can be seen as imaginary. Very lightly, an insinuation, not based on reality, but on the humor of the Graphist, is that Stephen and Bloom are close to a physical expression of their consubstantiation.

The only thing is to walk then you'll feel a different man. It's not far. Lean on me.

Accordingly he passed his left arm in Stephen's right and led him on accordingly.

--Yes, Stephen said uncertainly, because he thought he felt a strange kind of flesh of a different man approach him, sinewless and wobbly and all that. (P 660)

This is humorously continued at the end of the chapter when they"--walk toward the railway station bridge, to be married by Father Maher" (P. 665).

The narrator's portrayal of Stephen and Bloom as exhibiting the idea of physical consubstantiation mocks and destroys the seriousness with which their unity had been

previously presented in Circe. Eumaeus not only parodies Stephen and Bloom and their consubstantiation, but it also parodies the artist and the process of transubstantiation.

A reader, like W. B. Murphy, must read with his "greenish goggles" because of "sand in the Red Sea." The sand is language: "these heavy sands are language" (U 45/ ). "Sand in the Red Sea" suggests (1) that sand in the water of the Red Sea has caused the storyteller reader Murphy to undergo a "sea-change" or process of understanding which requires representational writing be 'colored' to fit his appreciation of semiosis (man becomes fish becomes barnacle goose); and (2) that, metaphorically speaking, the waters of the sea have been parted (as in the Biblical account of the exodus of the Jews from Egypt); sand in the absence of water - or pure signification, the sand itself - has caused such a transformation in his thinking about reality that when he reads he must interpret it according to the "miracle."

A reader of Eumaeus watches the characters, now physical objects independent of the cognition-dependent language of the text, walk off too far to be seen or heard:

Side by side Bloom, profiting by the contretemps, with Stephen passed through the gap of the chains, divided by the upright, and, stepping over a strand of mire, went across towards Gardiner street lower, Stephen singing more boldly, but not loudly, the end of the ballad:

Und alle Schiffe bruken

The driver never said a word, good, bad or indifferent. He merely watched the two figures, as he sat on his lowbacked car, both black - one full, one lean - walk towards the railway bridge, to be married by Father

Maher. As they walked, they at times stopped and walked again, continuing their tete-a-tete (which of course he was utterly out of), about sirens, enemies of man's reason, mongled with a number of other topics of the same category, usurpers, historical cases of the kind while the man in the sweeper car or you might as well call it in the sleeper car who in any case couldn't possibly hear because they were too far simply sat in his seat near the end of lower Gardiner street and looked after their lowbacked car. (text's emphasis, U 665).

The driver is the independent Author who watches the black figures disappear as black characters on a page of a book being turned. He is "utterly out of" their discussion - which names a few episodes of Ulysses. The underlined snatches of a verse by Samuel Lover allow the reader to keep the language used to humourously deflate the serious theme of the consubstantiation of the father and son separate from the figure they make. The line Stephen sings: "all ships are bridged" (a transformation of the original line by Johannes Jeep: "Which brings the ship into misfortune") connects ideas of information transfer with ideas of understanding. The bridge has been in his mind in Nestor and Scylla and Charybdis, while the ship has been in his mind in Telemachus and Proteus (and in section two in the form of the throwaway Elijah on the liffey): meaning has been communicated. Understanding has occurred, we can assume, in Stephen's case.

Eumaeus does classify objects of experience to general ideas. The objects of experience include ideas of the text; the consequences of the hypothesis; the characters (manipulated yet independent) and the graphist (independent

yet missing), and, finally, language (it puts a mask on things).

We have previously mentioned the manner in which time (as object) is "improved" by Stephen's "lie" (made to emphasize his ability to be author by manipulating time).

What are the general ideas at this point? At the most abstract they are the ideas of system and process. Eumaeus makes clear that the continuum between Stephen and the Graphist in Telemachus is just that and no more - not an equivalence. Eumaeus allows us to see that the unlimited semiosis of the novel - the catalogues, the ideas of trans-substantiation, the elements of chance and growth - were necessary for the movement of the text and that the process had a system behind it the whole time.

Ithaca builds its catechisms upon the understanding that the objects which are independent of our cognition seem to be "more" than our experience of them. Deely explains the relationship of this understanding to philosophy:

Within the interweave and mix in experience of cognition-dependent and cognition-independent relations comprising in its formality the objective world . . . only those organisms possessed of the capacity to understand in its distinction from the capacities to sense and perceive are able on occasion to discriminate among objective elements and structures the 'real' (cognition-independent) and 'unreal' (cognition-dependent) components. Both are essential . . . to the constitution of the superstructure of experience . . .; but within experience, what is the contribution of the subject and what is the contribution of the environment to the objective structure of a given interaction situation does not so much as begin to manifest itself prior to the recognition that there is more to the objects experienced than the mere experience of them, a recognition that understanding introduces into the perceptual field as its unique and proper contribution to cognition.

Subsequent investigation of this "more" is what gives rise to natural science and philosophy, inasmuch as this comparative discrimination of cognition-independent elements in the objective structures of experience . . . is what underlies the possibility of a system of signs . . . .37

James Joyce himself loved Ithaca more than the other episodes because it is an investigation of his text from "what underlies the possibility of a system of signs" - it is Musement upon details in the text, the structure of the text, and the experience of the text. One can almost hear the Graphist/God of "material creation" proclaim it "Good."

Ithaca is a cathechism between the "objects experienced" and the "experience of them" because the latter experience (semiosis) has caused our awareness that they exist apart from our cognition of them. Ithaca can be called "intergalactic" (Hayman, Mechanics 146) because both the science and philosophy of the episode place the understanding derived from the process of semiosis into the greatest perspective: the possibility of universes of galaxies as sign systems. Everything underlies the possibility of a system of signs: even quarks. Stephen and Bloom and our experience of reading about them can be compared to the natural process of the real world and to the cognitive process behind their appearing in the text. They can all be compared to the real and the unreal elements in the microcosm of elements within both worlds -- the textual and referential: things in Bloom's drawers (U 705) and features of the constellations (U 685) are equally fascinating and

relevant. What is possible (given our understanding of Bloom the character) can be discussed in detail, as well as what is actual:

Quote the textual terms in which the prospectus claimed advantages for this thaumaturgic remedy (U 706).

In what ultimate ambition had all concurrent and consecutive ambitions now coalesced? (U 697)

We read of improvements Bloom would possibly make upon a bungalow which is part of the "ambition . . . coalesced" (U 698) and we read about whether Bloom "might . . . become a gentleman farmer of field produce and live stock." ("Not impossibly") (U 700).

Through the form of the catechism we learn of details that occurred within the fiction subsequent to Eumaeus: Stephen and Bloom enter 7 Eccles Street, drink Cocoa, discuss various things, until Stephen, invited to remain the night but declining, leaves. But we also learn of details that occurred throughout the course of the day: that furniture has been moved; how many plates are left upon the kitchen sink, and so on.

We are told that "fragments of verse from the ancient Hebrew and ancient Irish languages were cited with modulations of voice and translation of texts by guest to host and by host to guest" and that "a glyphic comparison of the phonic symbols of both languages [was] made in substantiation of the oral comparison" (U 672). In the latter case we are brought to consideration of features of language as important to the structure of the text as features of

position, velocity, movement and direction of planets are to the structure of outer space.

We consider how a "false parallelism [is] proved true by construction" (U 671) and what "marks [were] contemplated but suppressed" (U 661). The relations between objects and mind are discussed as such:

What interchanges of looks took place between these three objects and Bloom? . . .

What composite asymmetrical image in the mirror then attracted his attention? The image of a solitary (ipsorelative) mutable (aliorelative) man (U 692).

And we read the instruction to "Reduce Bloom by cross multiplication of reverses of fortune, from which these supports [the endowment policy, the bank passbook, the certificate of the possession of scrip] protected him, and by elimination of all positive values to a negligible negative irrational unreal quantity" (U 710).

The separation of language and physical objects (including textual items) in Eumaeus is the basis of the investigation of them in Ithaca from all human disciplines. The ultimate result of Ithaca is that a reader reconsiders language and reality from the point of view of understanding in its semiotic sense. Such an activity necessarily changes a reader's conception of both the text and the context of the text - the real world.

And Joyce, though he considered ending the novel with Ithaca, placed the unknown physical reality of the text at the conclusion of his novel. Penelope is thus an affirmation of the possibility of understanding, an affirmation of

life itself. As Molly falls asleep at 3 a.m., after her husband comes to bed and talks to her she thinks of Blazes, her girlhood experiences, her marriage, Stephen. What she thinks is presented in only eight sentences with such loose structure that key pronoun references and syntax open rather than close the system of the text. A reader is brought back into a consideration of the meaning of the text from a perspective of understanding the importance of these physical details.

The details of Penelope contradict details in previous episodes - and in our own experience of reading.

Molly's monologue refuses to answer specifically any questions the novel poses but in effect encourages the reader to engage in the speculation upon facts and ideas and relationships that is Pure Play-- to establish as "habit" what has been exhibited in the novel.

Penelope, is the "counter-sign" to the text (Letters I, 160). It produces a "living habit: "The deliberately formed, self-analyzing habit -- self-analyzing because formed by the aid of analysis of the exercises that nourished it -- is the living definition, the veritable and final logical interpretant" (5.491). Molly's monologue, because of the preceding series of episodes, ensures that the kind of thought of Musement of the novel be its own "living definition." This is why "we start to see the world in Ulyssean terms." One passes final judgment on the whole result" (6.472), at the end of Musement. And the reader who

believes that "any existing regularity could be the result of chance" is actually considering the characteristic of what Peirce calls a Third of genuine law: "a genuine law or Third must . . . involve a counterfactual conditional. It must be true of a Third that it would exhibit a regular order under indefinitely many unrealized conditions." What Joyce meant by counter-sign may be understood in these terms. Molly's actual experience is the required test of induction. It modifies; it includes unrealized conditions of the day, the present movement, and the future. And the result is the formation of a "habit" and a "belief" concerning the "regular order" the novel exhibits "under indefinitely many unrealized conditions."

Abduction, deduction, and induction have been suggested in this chapter as a means of understanding the nature and organization of the eighteen episode-and-style changes in Ulysses. The innovations that Ulysses has been credited with, much like those ascribed to Peirce's method of analysis, tend to support such a Peircean approach to the text. The three modes of inquiry in the Play of Musement lead to a Muser's awareness of a Creator independent of the world of facts, ideas, and relationships, as in Ulysses. The "community of interpreters" that has grown around the text also fits the Peircean concept that one individual can not know, ultimately, the final "reality" or "truth" that will come to be known more and more definitely through time. Ultimately the advantages of the approach offered here rests with the "community of interpreters."

## Notes to Chapter IV

<sup>1</sup>Deely's three levels of cognition (sensation, perception, and understanding) are not contradictory to Peirce's three stages of inquiry. As we have previously mentioned, abduction is of the nature of sensation (2.711); deduction involves the use of icons, indexes, and symbols--as does perception; and induction tests the conclusions of deduction against experiences, which is quite similar to the manner in which a person recognizes that cognition-independent reality and one's experience of it are different; for more specific remarks about the three stages, see Chapter II.

<sup>2</sup>Jacques, Maratain, The Degrees of Knowledge, p. 145.

<sup>3</sup>The Degrees of Knowledge, p. 145.

<sup>4</sup>In traditional novels there is only one boundary--that between the created world inside the covers of the book and the world outside that boundary. In traditional novels, a move from one chapter to another is made within the whole; the only boundary that has been crossed existed at the beginning of the reading process. In Ulysses a move from one episode to another includes the crossing of a boundary between self-contained parts of the whole which contain the whole in as much as they "have a common end." As we know, the schema which Joyce used gives each episode a different

technique, art, color, organ, sense, symbol, and time. A move from one episode to another is thus a crossing out of the frame of one episode and a crossing into the frame of the next.

The concept of the frame is important in that "any system as an entity which can be investigated in its own right must have boundaries" (Ludwig von Bertalanffy, "General Theory of Systems," p. 198). A distinction with a motive can be seen in the difference in the spaces, states, or contents on either side of the boundary. According to Spencer-Brown, a distinction is made "by arranging a boundary with separate sides so that a point on one side cannot reach the other side without crossing the boundary. For example, in a place space a circle draws a distinction" (Laws of Form, p. 1). Spencer-Brown further explains the concept of crossing a boundary in terms of its indicating the value of the concept:

Once a distinction is drawn, the spaces, states, or contents on each side of the boundary, being distinct, can be indicated.

There can be no distinction without motive, and there can be no motive unless contents are seen to differ in value.

If a content is of value, a name can be taken to indicate this value.

Thus the calling of the name can be identified with the value of the content.

Axiom 1. The law of calling

The value of a call made again is the value of the call.

That is to say, if a name is called and then is called again, the value indicated by the two calls

taken together is the value indicated by one of them.

That is to say, for any name, to recall is to call.

Equally, if the content is of value, a motive or an intention or instruction to cross the boundary into the content can be taken to indicate this value.

Thus, also, the crossing of the boundary can be identified with the value of the content (Laws of Form, pp. 1-2).

The value of the content from Stephen's perspective is imaged at the end of Nestor where Stephen sees that "the sun flung spangles, dancing coins" (U 36/37).

Spencer-Brown's chapter 11, "Equations of the Second Degree," provides insight into Stephen's position. There is a degree of indeterminacy in Stephen's state in Telemachus, because of the process of abduction. He "lacks complete knowledge of where [he is] in the form" --here, Stephen says, "I cannot stay. Home also I cannot go." He needs "a solution representing an imaginary state . . . of the form" (Spencer-Brown, p. 58). Spencer-Brown explains that "since we do not wish, if we can avoid it, to leave the form, the state we envisage is not in space but in time," p. 58.

For an application of Spencer-Brown, see Floyd Merrell's Semiotic Foundations: Steps towards an Epistemology of Written Texts. Merrell establishes the concept of boundaries spaces (which can be crossed, recrossed, contracted, and expanded) as the basis of written texts. For the relationship of Spencer-Brown to what we have discussed about the expression and content places in Telemachus in the previous chapter, one can compare Spencer-

Brown's discussion of content, image, and reflexion to Eco (Theory, 55) who is discussing Hjelmslev. These approaches are all making use of similar procedures, but using different terminology.

Also see Thure von Uexhull's "Signs, Symbols, and Systems" in A Semiotic Landscape, eds. Seymour Chatman, et al. He writes that the boundary of an open system "has a double function: it divides the inside from the outside and also establishes communications between them," p. 491.

<sup>5</sup>Charles D. Laughlin, Jr., John McManus, and Christopher D. Stephens, "A model of brain and symbol," Semiotica 33-3/4 (1981), 217. The article "examines the relationship between cognition and action via processual models of the symbolic function itself. These models are constructed to account for the intervention of the symbolic function in the structure of cognition and the organization of action in furtherance of the dual demands of neurocognitive equilibration (in both ontogenesis and phylogenesis): adaptation and organization," p. 212. They explain that "the symbolic function of the nervous system is that by which the whole is inferred from the part; that is, the total  $E_c$  [cognized environment] model of an  $E_o$  [operational environment] process is evoked by partial sensory information about the  $E_o$  process. . . . The relationship between symbol and intention is the relationship between part and whole," p. 215. Here we can see the connection

that exists with the surprising phenomenon we have discussed in the previous chapter. We also find further support for the part/whole concept found in Joyce's Aesthetic Notebook and applied in the process and system of Ulysses. And, further, we have a means of explaining the relationship of Nestor to Telemachus--they write that "a response to a stimulus consists of establishing a key to the code of the stimulus pattern. But because  $E_c$  models are provided with veridical information pertaining to  $E_o$  patterns through the empirical modification cycle, the mechanism would require that input sufficiently keyed by the model and memory be stored until a pattern facilitating further entree into the models is detected.

"The hypothesis implies that a minimal symbol is any stimulus that provides sufficient patterning for entree into a model the intentionality of which contains more information than that provided by the stimulus," p. 217. The conjectured hypothesis is such a symbol. Peirce, as we may recall, also considered abduction as sensation and discussed the neurology involved (2.643).

<sup>6</sup>To answer this question one must deal with the problem of discovery and give a frame to the idea of abduction and thus consider a "method of discovering methods" (2.108). Peirce himself composed his *Speculative Rhetoric* to deal with this question/problem.

Stephen's above remarks can be understood as facets of the process of understanding abduction. C. W. Spinks has

created a "mediation pyramid" or "Pyramid X" to describe abduction, and though it cannot be analyzed here, he describes "the denotational, definitional, and cultural planes of inference and connection" in his three-dimensional pyramid ("Peirce's Demon Abduction," American Journal of Semiotics 2-1/2 [1983], 200).

Also, the above remarks on time providing a solution to an imagined state of affairs (or state of the form) explains Stephen's image of time as "one livid final flame." (See Spencer-Brown, pp. 54-68). Most simply, abduction is an inductive means of understanding the future, and time itself becomes part of the solution.

<sup>7</sup>Once again we refer to the excellent article by Joel Weinscheimer, "The Realism of C. S. Peirce, or How Homer and Nature Can Be the Same," American Journal of Semiotics (2-1/2 (1983), 225-63. If we emphasize originary in the above remark that Stephen "is contemplating an 'originary' work of art wherein Nature and Homer are the same," we notice that the work of art is not an imitation of previous works of art in a lineage of previous works. As Weinscheimer explains, "Original literature is, in Peirce's sense, symbolic in that it exists as something to be represented and realizes itself in those representations. Originality, rather than direct access to the thing, is originativity: the power by which the original gives rise to further works," p. 257. If we consider the hypothesis, that Nature and art are the same, we find how the referential function

of art can be reestablished; as Weinsheimer reminds us, "the work of Peirce offers a far richer mine to the student of literary theory. Peirce's realism, of which his semiotic is but one aspect, suggests how critics might reestablish the referential function of literature without minimizing the intertextual relations that would seem to deny reference. Peirce argues that meaning, and hence truth, inheres in the process of interpretation, not in individual moments. If so, this process is the condition of the possibility that (in Pope's words) Homer and nature can be the same," p. 225. Stephen is considering the referential function in Nestor. For a discussion of the relation between meaninglessness and the operation of thought, see pages 249-56.

<sup>8</sup>Thus we can understand Stephen's comment that "Thought is the thought of thought" as Stephen's awareness of genuine thirdness which includes the operation of a sign.

<sup>9</sup>See Peirce, especially "Some Consequences of Four Incapacities," found in Buchler's edition Peirce's writings, pp. 228-50. For an excellent application see Deely, Appendix II, Introducing Semiotic.

<sup>10</sup>Peirce, "Issues of Pragmaticism," The Monist 15 (October 1905) in Philip P. Wiener, ed. Charles S. Peirce: Selected Writings (New York: Dover, 1958), p. 222.

<sup>11</sup>Peirce, in Wiener, Selected Writings, p. 221.

<sup>12</sup>Peirce, in Wiener, Selected Writings, p. 223.

<sup>13</sup>Peirce, in Wiener, Selected Writings, p. 222.

<sup>14</sup>Peirce, in Wiener, Selected Writings, p. 53.

<sup>15</sup>Peirce, in Wiener, Selected Writings, p. 54.

<sup>16</sup>Peirce, in Wiener, Selected Writings, p. 54-55.

<sup>17</sup>See Peirce's discussion of the three elements of thought, Wiener, Selected Writings, p. 56.

<sup>18</sup>Peirce in Wiener, Selected Writings, p. 56.

<sup>19</sup>Peirce in Wiener, Selected Writings, p. 59.

<sup>20</sup>Peirce in Wiener, Selected Writings, p. 38.

<sup>21</sup>Peirce in Wiener, Selected Writings, p. 60.

<sup>18</sup>Peirce in Wiener, Selected Writings, p. 56.

<sup>19</sup>Peirce in Wiener, Selected Writings, p. 59.

<sup>20</sup>Peirce in Wiener, Selected Writings, p. 38.

<sup>21</sup>Peirce in Wiener, Selected Writings, p. 60.

<sup>22</sup>Peirce's above remarks on the space of dimensionality  $N + 1$  explains why Stephen's model of authorship includes reference to Hamlet's grandfather. Bunn discusses  $N + 1$  as a probing along the axis of relation of thought to its object and  $N - 1$  as the indirect relation between symbol and object, wherein the latter is the mirror of the former, but in fewer dimensions. By combining the two we are reminded "that mentation is self-consciously included in discovery . . . while  $(N - 1)$  implies that the mirror of mind has been deleted. . . . So the combination  $(N +$  and  $- 1)$  means a complex dialectic between model and tacit problem via a mentation process that is both within and without the modular system being described. From the outside we see the model as an object with geometrical qualities [as  $N + 1$ ];

seen from within, the model is processional, that is, arithmetical," Dimensionality of Signs, Tools, and Models, p. 37.

<sup>23</sup>Benveniste, "The semiology of language," Semiotica, supp. (1981), 20. This article first appeared in Semiotica 1 (1969), 1-12 and 127-135 and latter was included in Problems de linguistique generale.

<sup>24</sup>Deely, Introducing Semiotic, p. 118.

<sup>25</sup>The potential Stephen recognizes in Berkeley's theory is a method which Peirce also recognized in Berkeley's writing: "In 1871, the Metaphysical Club in Cambridge, Massachusetts, I used to preach this principle as a sort of logical gospel, representing the unformulated method followed by Berkely, and in conversation about it I called it 'Pragmatism,'" (6,482).

Peirce explains Berkely's importance: "There can be no doubt that before the publication of Berkeley's book on Vision, it had generally been believed that the third dimension of space was immediately intuited, although, at present, nearly all admit that it is known by inference. We had been contemplating the object since the very creation of man, but this discovery was not made until we began to reason about it." "Questions Concerning Certain Faculties," in Wiener, p. 21. Berkeley and Peirce are in agreement that what a person thinks is "of the nature of a cognition, and so of anything else which can be experienced," and thus, "the highest concept which can be reached by abstractions

from judgments of experience--and therefore, the highest concept which can be reached at all--is the concept of something the nature of a cognition," in Wiener, Selected Writings, p. 35. Peirce credits Berkeley with laying the solid foundation in his theory of cognition for eighteenth century contributions to logic, in "The century's Great Men in Science," Wiener, Selected Writings, p. 270.

Berkeley's rejection of Cartesian principles which force the reality of things and ideas into the realm of the unknowable is similar to Peirce's own rejection; and it is similar to Stephen's. Stephen thinks, "ineluctable modality of the visible: at least that if no more, thought through my eyes. Signatures of all things I am here to read" (U 37/38). Stephen asserts that things are cognizable. The "thought through my eyes" is what Berkeley calls "visible ideas. . . attending vision, which in their own nature have no manner of similitude or relation either with distance or things placed at a distance; but, by a connexion taught us by experience, they come to signify and suggest them to us, after the same manner that words of any language suggest the ideas they are made to stand for; insomuch that a man born blind and afterwards made to see, would not, at first sight, think the things he saw to be without his mind, or at any distance from him," Principles of Human Knowledge, paragraph 43.

<sup>26</sup>Concerning the awareness that there is a cognition-independent reality whose being and creator is God, Berkeley

writes, "Some truths there are so near and obvious to the mind that a man need only open his eyes to see them. Such I take this important one to be, viz., that all the choir of heaven and furniture of the earth, in a word all those bodies which compose the mighty frame of the world, have not any subsistence without a mind, that their being is to be perceived or known; that consequently so long as they are not actually perceived by me, or do not exist in my mind or that of any other created spirit, they must either have no existence at all, or else subsist in the mind of some Eternal Spirit--it being perfectly unintelligible, and involving all the absurdity of abstraction, to attribute to any single part of them an existence independent of a spirit," Principles of Human Knowledge, paragraph 6.

Berkeley makes it clear that he does "not argue against the existence of any one thing that we can apprehend either by sense or reflection. That the things I see with my eyes and touch with my hands do exist, really, exist, I make not the least question," Principles of Human Knowledge, paragraph 35. Berkeley thus asserts that what is called "matter or corporeal substance" exists as it is cognizable, not by the solipsistic act of one individual human, but by the "mind of some Eternal Spirit." As he himself explains, the cognizability refers to "All minds": "For, though we hold indeed the objects of sense to be nothing else but ideas which cannot exist unperceived; yet we may not hence conclude they have no existence except only while they are

perceived by us, since there may be some other spirit that perceives them though we do not. Wherever bodies are said to have no existence without the mind, I would not be understood to mean this or that particular mind, but all minds whatsoever," Principles of Human Knowledge, paragraph 48, emphasis added. Of course this places importance upon what Peirce later develops as the "community of inquirers" and allows us to understand the habit of experience Berkeley frequently mentions (as in the above quoted passages) as similar to what Peirce later means by the phrase.

<sup>27</sup>See the epigraph to this chapter. Paul Anghinetti, in "Berkeley's Influence on Joyce," notes that "scholarship has been remiss in its scant attention to Joyce's indebtedness to Berkeley," JJQ 19 (Spring 1982), 317. Anghinetti correctly mentions that "Stephen is the agent through which Joyce can explore the relation of perception to knowing," p. 316. We have shown even further how even the process of abduction, beginning in Telemachus, makes use of Berkeley's implicit method. Anghinetti offers some excellent insight into Joyce's use of Berkeley: "Joyce's employment of Berkeley . . . avoids the metaphysical predicament to troublesome to philosophers," p. 320. He writes, "Berkeley offered him another metaphor for his conception of aesthetic creation. . . . Reality becomes the perception of an 'uncreated conscience' which the artist encounters. Art engages not only Platonic appearances or Lockean secondary qualities, but also the formless,

unthinking, unperceiving substance. The artist, then, becomes Berkeley's 'universal mind' that shapes and presents the world to his 'race,'" p. 320-21. And, as we have been asserting throughout, he states that "Joyce adopts a Berkeleyan reversal of Kant, refusing to accept a precept without a concept," p. 322; emphasis added. As Anghinetti correctly concludes, "The significance of Berkeley's position rests with Joyce's ability to link the artistic process with the perception of reality. . . . Matter, corporeal substance, loses its inscrutability and enters a knowable universe," pp.324-5. In Finnegans Wake, as Anghinetti notes, Berkeley is the defender of art. One of the first drafts of the Wake included a portion on St. Kevin and another dealt with Berkeley--the name Kevin is related to the same set of concepts in each work.

Also worth mention is Pierre Vitoux's "Aristotle, Berkeley, and Newman in 'Proteus' and Finnegans Wake," JJQ 18 (Winter 1981), pp. 161-75. Our previous distinction between dyadic (imitative) and triadic (semiotic) representation is mentioned as the difference between Aristotle and Berkeley in Proteus, though the terminology is, of course, different. We may recall that Joyce rewrote Aristotle's "Art imitates nature" to "the artistic process is like the natural process." Thus there is not that great a difference between the Berkeleyan and Aristotelian "vision" Vitoux mentions (p. 167-8), not in the text of Ulysses. But we do accept that Berkeley's ideas allows and

reaffirms a new use of language in art. As Vitoux states: "What is thus established is a different status for art, an esthetic reading of 'the language of nature' based on attention to the variety of signs conveyed by an infinitely and eternally productive immanence. . . . Such art requires a different use of language for the sake of recapturing the uniqueness of each moment of experience. It also implies a different conception of language, not imitative but creative--i.e., coextensive with perception insofar as it contributes to creation, the actualization of God's language. . . . [I]t is a rejection of the mimetic dependence of words on things perceived, and conversely an assertion of the symbolical reality of our perceptions," p.169, emphasis added. In this present study we have seen that such ideas had been developed early by Joyce and that Ulysses as a whole manifests from the first page of text such an innovative approach to art. Vitoux states that "In 'Proteus,' the process is suggested rather than completed," p. 169--but we can see that Stephen's thoughts of Berkeley do more than suggest a process which will be completed in Finnegans Wake. Stephen's thoughts of Berkeley's ideas confirms the conjecture (from Telemachs) which will be demonstrated as operative of the hypothesis in Section II of the novel.

<sup>28</sup>Deely, quoting at the word "elevation" Thomas de Vio Cajetan, Commentaria in Summam Theologicam, Orima Pars (Rome, 1888-1889) in Introducing Semiotic, p. 141. Deely's

discussion of the functioning of the difference between words and ideas in language is important, especially since (as he shows) the distinction between words and ideas is missing in modern philosophy; see Appendix II, pp. 131-42. Delly's discussion continues the ideas Berkeley himself mentions in his "introduction" to The Principles of Human Knowledge. Berkeley discusses "the nature and abuse of Language" (paragraph 6) as the "source of this prevailing notion" found in "the false principles that have obtained in the world, amongst all which there is none, . . . hath a more wide and extended sway over the thoughts of speculative men than this of abstract general ideas" (paragraphs 17-18). He writes "no one settled idea . . . limits the signification of the word" (paragraph 18), and, much like Deely, comments "so difficult a thing it is to dissolve an union so early begun, and confirmed by so long a habit as that betwixt words and ideas" (paragraph 23). Berkeley concludes, "And he that knows names do not always stand for ideas will spare himself the labour of looking for ideas where there are none to be had. It were, therefore, to be wished that everyone would use his utmost endeavours to obtain a clear view of the ideas he would consider, separating from them all that dress and incumbrance of words which so much contribute to blind the judgment and divide the attention," paragraph 24. We may recognize the compatibility between Peirce's approach to words and things (ideas) and Berkeley's.

<sup>29</sup>Deely, Introducing Semiotic, p. 141.

<sup>30</sup>Deasy erases an error from his manuscript (a letter to the press about foot and mouth disease):

He went to the desk near the window, pulled his chair twice and read off some words from the sheet on the drum of his typewriter.

--Sit down. Excuse me, he said over his shoulder, the dictates of common sence [emphasis the text's]. Just a moment.

He peered from under his shaggy brows at the manuscript by his elbow and, muttering, began to prod the stiff buttons of the keyboard slowly, some times blowing as he screwed up the drum to erase an error (U 32/33).

The reader is not sure what is being erased:

--Full stop, Mr. Deasy bade his keys. But prompt ventilation of this important question . . . [ellipses the text's]

When given the letter, Stephen Skims the text and the text remains cognition-dependent:

--I don't mince words, do I? Mr. Deasy asked as Stephen read on. Foot and mouth disease. Known as Koch's preparation. Serum and virus. Percentage of salted horses. Rinderpest. Emperor's horses at Murzsteg, lower Austria. Veterinary surgeons. Mr. Henry Blackwood Price. Courteous offer a fair trial. Dicatates of common sense. All important question. In every sense of the word. . . . (U 33/34; emphasis added).

Has Deasy erased to add the word "All" before important question? Or has Stephen's reading altered the text? All has been in his thoughts:

Give him the key too. All, He will ask for it. That was in his eyes (Telemachus 20/21).

After all . . . After all (Telemachus, 20/22).

Yes. They knew: had never learned nor ever been innocent. All. With envy he watched their faces (Nestor, 24-5/25-6).

Have I heard all? (Nestor 26/7).

Stephen's reading exhibits what Floyd Merrell describes as the "coexistence" of the reader's ability to not only perceive opposition and identity (illustrated by a move 'inside' or 'outside' the text) but also to perceive continuity through time. The latter is the capacity of the mind to be "tacitly and consciously aware of both 'inside' and 'outside' . . . potentially capable of conceiving and perceiving things from the larger frame in terms of comparative differences rather than of mere categorical opposition and identity" Semiotic Foundations, p. 142. The letter Stephen reads is a model of the situations he reads. Throughout the first section of Ulyssess a reader's attention is focused upon the process of abduction, which is of the nature of sensation.

<sup>31</sup>Thus a different kind of cognitive activity is required in the second section of the novel. Deely's discussion of the three different intraorganismic factors required in understanding a linguistic occurrence has application here. A reader is aware of the material aspect of the linguistic factor, which requires a different cognitive activity than that which allows a reader to be aware of the object to which the linguistic factor refers. A reader is aware of both together, "making possible the

formation of an idea of the two as a unity--a unity of thought," Introducing Semiotic, p. 137.

<sup>32</sup>This expected meeting at the literal level also makes sense at the linguistic level in the terms presented in the above note. The relations would thus place Bloom in the position previously discussed as the object to which the linguistic factor refers; Stephen would be in the position of the material aspect of the linguistic factor. A reader realizes the possibility of "the formation of an idea of the two as a unity--a unity of thought," Deely, 137) but when the characters do undergo a transubstantiation/consubstantiation at the end of *Circe*, the third cognitive level is thus initiated.

<sup>33</sup>Eleanor Hallowell Abbott, Molly Make-Believe (New York: Grosset and Dunlap, 1910), pp.11-12.

<sup>34</sup>See Shari Benstock's "The Printed Letters in Ulysses," JJQ 19 (Summer 1982), 415-27. Bloom's wondering "did she write it herself" is a demonstration of the reader's relation to the author/creator as-independent hypothesis discussed in the first section. Earlier Haines asked Stephen "he himself" when Buck's explanation of Stephen's Hamlet theory is mentioned.

<sup>35</sup>The idea of fakery is discussed in Jackson I. Cope's Joyce's Cities (Baltimore: The Johns Hopkins Univ. Press, 1981), pp. 70-77.

<sup>36</sup>Reference confusion--the confusion between the word/phrase as object and as idea--emphasizes both the first

intentional and second intentional aspects of the text (discussed in Chapter II above). We have already discussed the manner in which an 'unreal' aspect of perception (found in the proportioning between the present and absent objects of semiosis) can be introduced into the physical, material world. The manner in which Banton Lyons' reference confusion becomes the context for the action in *Cyclops* is thus a demonstration of the hypothesis. The element of chance found in the natural process is also included in the artistic process; and as Peirce has been quoted above, chance may "be capable of being accounted for, in one sense, by the action of chance with the smallest conceivable dose of a higher element" (6,465).

<sup>37</sup>We will maintain our attention on the term as Deely has defined it (see Chapter II above). Deely discusses the distinction between his concept of secondary modelling systems and that proposed by Jurij M. Lotman; see Introducing Semiotic, pp. 198-9. See Lotman, "Primary and Secondary Communication-Modeling Systems," in Soviet Semiotics, trans and ed. by Daniel P. Lucid (Baltimore: Johns Hopkins Univ. Press), pp. 95-98; The Structure of the Artistic Text, trans. by Ronald Vroon (Ann Arbor: Michigan Slavic Contributions, Univ. of Michigan).

<sup>38</sup>Deely discusses these aspects of secondary systems: "Further observation would reveal . . . within this primary network of perceptually accessible interaction, and carried by them (conflated with them in social life), a secondary

network of (comparatively) unreal relations conveying the historical experience of the group as something transcendent--not to individual and social reality, but--to the perceptually accessible elements as such expressing the 'primary systems," Introducing Semiotic, p. 121. The representation of these experiences of the secondary system in Ulysses demonstrates the difference between traditional mimesis (as dyadic) and the hypothesis which finds an equivalence between the artistic and natural process. These are the innovations possible in the idea Stephen considers in Proteus (where Stephen identifies with the revolutionary Kevin Egan).

<sup>39</sup>Don Gifford and Robert J. Seidman, Notes for Joyce: An annotation of James Joyce's 'Ulysses' (New York: Dutton, 1974), p. 118. For a discussion of Joyce's use of theological lore, see Cope's Joyce's Cities; Cope mentions the lighting of the match passage on p. 88. The hypothesis provides such a perspective which would allow for such a presentation of an infinitely cognizable "reality" as found in the akasic records.

<sup>40</sup>Deely, Introducing Semiotic, p. 111.

<sup>41</sup>Deely, discussing Poinot's Treatise on Signs (1632) as offering a position which allows us to see "how semiotic requires a revolution in philosophy, classical and contemporary alike," provides the following example of an 'ontology' which accounts for the categorical interconnections and lays

bare the ground of the prior possibility of truth as a 'correspondence' between thought and being":

Consider the case of a room in which all the furniture has just been moved in, but not yet arranged, and that same room after each item of furniture has been put into proper place. Literally, no thing has been altered in the two cases--each thing in itself, each item of furniture, remains just as it was, assuming no damage in the rearrangements; and yet the simple fact of arrangement makes all the difference in the world between the two cases. It is not in the things that a difference has been made, but in between them. Moreover, this 'in between' difference is there in both cases, whether or not anyone happens to be contemplating it. We have here the matter of what Poinset calls 'predicamental' or real (physical) relations.

Now consider further the case of the unarranged room while its owner is deciding how to arrange it. Suppose, for simplicity's sake, that that person completely thinks out in advance the exact position for each item, and only then proceeds to place the furnishings accordingly. At the moment when everything has been thought out but nothing yet placed, there exists in thought a network of objective but entirely mind-dependent ('mental') relations (relationes rationis); yet once the furnishings have been moved accordingly, this very same network has been made to exist in the physical order of what stands independently of cognition! Thus Poinset observed (following in this Aquinas c. 1266: q. 28, and Cajetan 1507 before him) that as a mode of reality relation is unique in that its essence (esse ad aliud, 'being between') is separate from its cause on ground of existence (esse in alio, 'the character or feature upon which a relation is founded'), which is not the case for any other mode of reality. Poinset sees in this the ultimate reason for the possibility of semiosis: relation in what is proper to it, namely, supra-subjectivity or intersubjectivity (esse ad), is indifferent to realization now in nature, now in thought, now in both (Deely 1971b, 1972a, 1972b). Relation in this sense, precisely as indifferent to the opposition of what depends upon and what is independent of cognition, Poinset calls relatio secundum esse, 'relation according to the way it has being' or 'ontological relation' (see Deely 1974, 1983).

Deely then explains Poinot's division of being into transcendental and ontological relation:

Consider now the case of some 'individual' being, whether 'natural'--say, a dinosaur--or 'artificial'--say, a lamp in the newly arranged room. Such individuals are emphatically not realtions in the being proper to them (secundum esse)--they exist subjectively as something in their own right, not just between other things sustaining them in a derivative way. And yet, if we seek to explain why they are as they are or how they might be altered from their present state, we find it necessary to refer to what the individuals in question are not. Thus, even the individual entities and 'natural units' of experience existing in their own right--even substances in Aristotle's scheme, the most absolute of the subjective entities-- are seen to be relative when it comes to the question of how they come to be or of how they are to be accounted for. Relativity in this sense, precisely as infecting the whole scheme of categories of cognition-independent existents, Poinot termed *relatio secundum dici*, 'relation according to the way being must be expressed in discourse,' or (synonymously) *relatio transcendentalis*, 'transcendental relation' (Introducing Semiotic, pp. 170.71).

And Deely clarifies, "in technical terms, the representative element in signification is a transcendental relation, whereas the signification proper is in every case an ontological relation, and a categorical or 'real' one when the conditions for relation to obtain in the physical order--principally the cognition-independent or 'subjective' existence of its term--are fulfilled" (Introducing Semiotic, p. 172).

Now we can better appreciate the accomplishment of Joyce in the Wandering Rocks episode. Representation is shown as it is a transcendental relation; signification is

shown to be an ontological relation. Already we have mentioned how the traditional concept of narrator operates in traditional representation (dyadic) as a transcendental relation. Even in first-person texts wherein the narrator has a specific identity (compared to omniscient point of view texts), the narrative persona is in a transcendental relation to the material aspect of the text and context. In *Wandering Rocks* the famous examples of thoughts which had previously existed within the mind of a character are introduced as ontological relations ('real') within the discourse can be seen as more than mere tricks of Joyce the artist. Now they can be appreciated as demonstrations of the hypothesis which Stephen has considered in the first section of the novel. (We have shown how the hypothesis is the basis of the expression system of Telemachus and is thus a 'real' relation to the reader as the reader is presented Stephen's consideration of the potential of the hypothesis [a 'mental' relation].)

<sup>42</sup>The debate about narration in *Cyclops* focuses upon issues without considering the manner in which the text of *Ulysses* as a whole has overcome the problems of conventional narration which are being exposed in the episode. Such an oversight is understandable since the method of the text *Ulysses* has itself been problematic. A good approach to the debate is provided by the recent article "Funfersum: Dialogue as Metafictional Technique in the 'Cyclops' Episode

of Ulysses," by Mary Beth Pringle (JJQ 18 [Summer 1981], 397-416). She summarizes the "debate" between David Hayman and Herbert Schneidau. (See David Hayman, "Cyclops," in James Joyce's 'Ulysses': Critical Essays, ed. Clive Hart and David Hayman [Berkeley: Univ. of California Press, 1974]; Herbert Schneidau, "One Eye and Two Levels: On Joyce's 'Cyclops,'" JJQ 16 [Fall 1978/Winter 1979], 95-103; and David Hayman, "Two Eyes at Two Levels: A response to Herbert Schneidau on Joyce's 'Cyclops,'" JJQ 16 [Fall 1978/Winter 1979], 107.) The debate centers upon the problem of whether the two narrative modes in Cyclops occur at one time or two different times, and whether the reporting occurs in one place or two places. The lack of resolution leads Pringle to the thesis that the episode itself does not function within the framework of the novel Ulysses, and that there is no framework for the novel Ulysses. She states her agreement "with Michael Groden that the 'Cyclops' method of narration illustrates more readily than any other how Joyce's 'artistic goals changed [during Ulysses' composition] to such an extent that a book . . . [begun] as a sequel to A Portrait of the Artist as a Young Man ended as a prelude to Finnegans Wake,'" p. 398 (ellipses and interpolations ar Pringle's). We have discussed Groden's views in the introduction to this study. Once again we see that the inability of the commentators of Ulysses to convincingly explain its method of narration has influenced not only Groden's discussion of the composition

of the novel during Joyce's writing stages before publication but has also come full circle as a statement of "fact" that Joyce's purpose or "goals" changed in the process of writing Ulysses; unfortunately such an argument does not seem to support any reference to Joyce's masterful use of narrative technique--whether it be his use of dialogue as a metafictional technique or otherwise--for what is shown in the "blind loop" of support is Joyce's lack of concern for narrative principles within a text.

Pringle believes that "Narration in the episode is a dialectic without resolution: both halves are finally 'unreal,'" p. 399. Cyclops is simply an experiment that leads to his next novel (p. 399). The in-depth statistical information Pringle uses to prove the existence of a Narrative-I and Narrative-He in the episode, because of her thesis, can prove nothing about Ulysses as a novel but only demonstrate Joyce's personal experiment with two modes. Thus pringle's comments about the I-He narrative modes could in itself demonstrate a principle about narrative technique; but rather than comment upon the success or lack of success in general in Joyce's experiment, and rather than show how the technique is a predecessor to the technique of the Wake, Pringle tries to establish that the I-He narrative technique is blurred: "Joyce in 'Cyclops' plays with our expectations. He offers us an apparently 'naturalistic' rendering of events in Barney Kiernan's, and then subtly blurs the

'real' and 'unreal' narrative strands," p. 399. In other words, what Pringle labours to establish is then unwoven.

We may notice, in passing, Pringle's references to 'real' and 'unreal' which we have established as part of the cognitive level of preception in the second section of the novel. In the third section of Ulysses what is real and unreal is discussed as what has been presented in deduction (section II) is evaluated against experience. For example: "Concluding by inspection by erroneously that his silent companion was engaged in mental composition he reflected on the pleasures derived from literature of instruction rather than of amusement as he himself had applied to the works of William Shakespeare more than once for the solution of difficult problems in imaginary or real life" (U 661)" . . . apprehension of position from extreme circles . . . on visits of york (real) His Majesty King Brian Boru (imaginary) (U663). The text of Ulysses makes use of Cyclops to demonstrate the innovations that are implicit in the hypothesis.

<sup>44</sup>Deely, Introducing Semiotic, p. 122.

<sup>45</sup>Michel Foucault, The Order of Things, p. xviii-xix.