

# Discourse Structure and Listening Comprehension of English Academic Lectures

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**Abstract**—Based on Systemic Functional Linguistics, this paper makes a Phasal Analysis of the underlying macrostructure of academic lectures and studies the distinctive features of these phases. The purpose of the study is to offer teachers and their students a more realistic representation of the schematic patterning of lectures to facilitate student's processing of information transmitted in this mode.

**Index Terms**—academic lectures, macro-structure, phase, phasal analysis

## I. INTRODUCTION

Recently, it attracts more and more linguistic concerns that foreign students experience great difficulties in processing spoken academic lectures. Traditional analysis of academic lecture in terms of a beginning or introduction, a middle or body, and a conclusion fails to give a more accurate configuration of the academic lecture discourse.

Based on the Systemic Functional Linguistics, this paper explores the underlying macrostructure of academic lecture from the perspective of Phasal Analysis and studies the distinctive features of the six phases (Discourse Structuring phase, Conclusion phase, Evaluation phase, Interaction phase, Theory phase and Examples phase) in academic lecture by taking account of the relationship between the semantic metafunctions such as ideational, interpersonal and textual and the linguistic choice realizing these functions. The purpose of the research is to offer teachers and their student of EFL a more realistic representation of the schematic patterning of lectures to facilitate student's processing of information of information transmitted in this mode.

## II. CORPUS CONSTRUCTION

I downloaded 100 pieces of video of academic lectures with their transcripts from Internet for this research. They average out to last 60 minutes. Then 30 of these pieces of video are random selected as corpus of this investigation. And I selected about 20 minutes of each piece of the video. Of the 30 academic lecture discourses, eight are selected from *Advanced Viewing, Listening, and Speaking* published by Higher Education Press; three are delivered by Justice Sandel in Harvard University; nine are *Introduction to Psychology* given by Professor Bloom in Yale University; ten are *Positive Psychology* given by Professor Ben-Shahar in Harvard University. So these lectures can be classified into three categories – law, psychology and sociology.

## III. MODAL OF ANALYSIS

### A. Systemic Functional Grammar

M.A.K.Halliday (1973) has developed the ideas stemming from Firth's theories in the London School. Systemic Functional Grammar explicitly indicates the connection between situational factors, or contextual constructs, and languages choices. That is to say, it shows how different contexts engender different language varieties. Furthermore, it not only identify the macro-structure of a language variety, but also the micro-features of that make up this structure. With such identification available, teacher of English can acquaint students with the distinctive features of different varieties of language.

Situational factors generate linguistic choices. Halliday (2000) thought that Situations consist of three factors. The first is field which accounts for the activity in which speakers and listeners are engaged in a specific situation. It is what is going on through language in a particular time and place. The field of university lectures can be classified into Engineering, Economics, Sociology, Psychology, etc.

The second is tenor. It concerns the relationship between speakers and listeners or between writers and readers, a relationship that can be subdivided into two categories. The first is personal tenor which refers to the degree of formality between the participants in an instance of language. It accounts for the ways that different relationships such as relationship between lecturers and students influence language choices. Another is functional tenor which relates to the purpose for which language is being used. In other words, the language choices a speaker makes are also determined by the purpose of a person's speech.

Besides these influences, the third is mode which refers to the channel of communication. In the least delicate sense, it accounts for the differences that arise between spoken and written language; a more detailed description of this

construct might seek to accounts for differences that arise in spontaneous versus planned speech or between spoken monologues and dialogues.

Under the influence of the three situational factors, the linguistic code – the language we select in any given context – is shown on the semantic and the syntactic strata. The semantic stratum is composed of three different general functions. First is ideational function. I will use some examples to explain this function. we might say something like “Did Tom hit the boy last night?” here, there is an event, “hit”, and the participants in this event, “Tom”, “the boy”, as well as the time of the event, “last night”. These elements express the content of our ideas and it is for this reason that this general function is called the ideational one. It accounts for the experience we are communicating and reflects the what, the who, and the where and how of our activities. Putting it another way, it accounts for the process – which are anything that can be expressed by a verb, an event, a state or a relation – and the participants in that event or state or relation, along with the circumstances in which it occurs. our ideas, of course, need not always be about actives such as in the example above, but could instead be about mental states, as in the following examples: “they have to know the answer.” “Think about the problem.” Our utterances are also just as often about relations between things or people, as in: “She is the president.” “Obviously, he is handsome.” This metafunction, as we note from the examples, generates specific structures at the syntactic level: the nominal groups realizing subjects and objects; and verbal groups realizing transitive or intransitive verbs, those taking objects or not, as in the following two sentences: “She hit the dog.” “He thinks.” This ideational metafunction, then, accounts for processes, participants and circumstances at the semantic stratum, and these are realized in the syntactic level by nominal and verbal groups.

In addition to communicating about something, speakers and writers also express their stance or attitude toward the content; that is, they decided whether to ask questions, or state information, or express their opinion towards the content. The metafunctional component that accounts for an addresser’s assessments, choices of speech function, etc., is the interpersonal one. And so when we look at the above sentences, we note that the interpersonal metafunction generates choices such as the use of modals, and whether or not a question is selected, or what attitude the speaker adopts to the utterance. In the above examples, in addition to the verbs and subjects, we have other elements in the utterance that are generated by this interpersonal metafunction. And so in the sentence, “They have to know the answer”, we have a modal element “have to” which reflects not the experience of the speaker, but his attitude towards it, expressed in a modal of necessary; in another sentence the speaker has selected a command instead of a statement or a question in the sentence, “Think about the problem.” In yet a third way a speaker had expressed attitude towards the content by his choice of the word “obviously” in, “Obviously, he is handsome.” All of these are reflections of interpersonal function which generates mood choices, the use of modals and other attitudinal elements which are distinct from the features which realize ideational choices.

The last is the textual function which accounts for cohesive features such as ellipsis, reference, collocation, etc. cohesive features show how we connect our ideas to each other through, for example, reference, where a pronoun refers back to previous object or event in the discourse, as in the following, “Tom didn’t know the answer. He should have known it.” These are the kinds of choices that are governed by the textual metafunction.

The language code, then, is composed of the semantic stratum which generates particular structures and lexis at the syntactic level.

### B. *Phasal Analysis*

According to Young (1994), phase is designed to reveal similarities in different strands of a particular discourse in terms of what is being selected ideationally, interpersonally, and textually. Phases are strands of discourse that recur discontinuously throughout a particular language event and taken together, structure that event. These strands recur and are interspersed with others resulting in an interweaving of threads as the discourse progresses. What this suggests is that in speaking or writing one doesn’t just begin a topic, discuss it and then conclude it before going on to a new one; rather, one’s discourse is composed of different topics which are introduced, described, summarized, returned to and are interspersed with other subtopics which are themselves announced, discussed and exemplified.

According to Young, there are six phases or strands, three of which are metadiscoursal, that is, strands which comment on the discourse itself.

Of the three metadiscoursal phases that occur in all of the corpora, the first is Discourse Structuring phase in which addressors indicate the direction that they will take in the lecture. Thus such strands recur with great frequency through the lecture as the speaker proceeds to new points. It is an announcing phase that a lecture indicates to listeners new directions of the lecture.

The second and equally important metadiscoursal phase is Conclusion phase in which lectures summarize points they have made throughout the discourse. To a large extent, the frequency of this phase and the Discourse Structuring phase is determined by the number of new points made in any particular discourse. That is to say, if the addressor introduces only two points in a lecture, then there will tend to be two Discourse Structuring phases and two Conclusion phases discontinuously occurring throughout the lecture.

The third phase is Evaluation phase. The lecture reinforces each of the other strands by evaluating information which is about to be, or has already been transmitted. Lectures do so by indicating to the listeners how to weigh such information by giving their personal agreement or disagreement with different aspects of the content.

These three phases seem to be the direct result of the influence of the situational factor of tenor in the sense that,

because of the relationship between lectures and students, the former explicitly structure their discourse by indicating how they will proceed (Discourse Structuring phase), following this with a summation of what has been said (the Conclusion phase), and reinforcing both with an evolution of material (the Evaluation phase), to facilitate the students' ability of the processing of information. These three occur across disciplines, indicating that the relationship between addressors and addressees in this situation fashions a particularly consistent macro-structure.

Three other phases have a close relationship with the content of the lectures. The first is Interaction phase. Through this phase, lecturers maintain contact with their audience in order both to reduce the distance between themselves and their listeners and to ensure that what has been taught is in fact understood. They accomplish this by entering into a dialogue with the listeners by posing and answering questions. Whereas, as we will see in the section Discourse Structuring phase, the Discourse Structuring phase is full of rhetorical questions posed by the speaker in order to draw listeners' attention, in Interaction phase there are many interrogative questions intended to be answered by someone rather than the speaker.

The two other phases that compose the macro-structure of academic lectures constitute the actual content of these discourses. The first is Content phase which is to transmit theoretical information. In this phase, the theories, models and definitions are presented to students. The Content phase is modified with the metadiscoursal ones, and with the Interaction phase, as lectures indicate what they are about to say, summarize different elements of the content, evaluate it and check in the Interaction phase to ensure that students have understood various points. This phase is further modified with Examples phase. In this phase, the speakers explain theoretical concepts through concrete examples familiar to students. In many lectures, examples are more numerous than the theoretical ones, which shows how important the role of exemplification.

#### IV. PHASAL DESCRIPTION

##### A. Discourse Structuring Phase

The Discourse Structuring phase is one in which speakers announce the direction they will take, telling the audience what will come next in the discourse. The speaker identify topics that are about to be covered to facilitate processing by the students. The addressors ease the burden of comprehension of new information. I will give a few lines from the lectures which will indicate the types of features that characterize this phase.

*Let's move on to the second period, the period of individualism.*

*This is a course about justice. We begin with a story.*

*Today I'll give you some facts and figures about colleges and universities in the United States.*

What are noteworthy here, in terms of ideational choices, are two types of selections. First, we see that the speakers use similar verbal groups such as "give you an example", "give you some facts and figures", and "move on to", all forms of verbalization, followed by nominal groups that tell the listeners what will follow. Second, there are particular choices of pronouns selected to involve the audience in the lecture: first person plural, and second person pronouns.

In terms of mood, there is significant variation, with that of *wh* interrogative alternating with imperatives and declarative statements. Almost all of the realization of the interrogative are rhetorical questions posed and answered by the addressors. They can further draw students' attention and alert them about what is to come. Some examples will be given.

*What is distance education? A Consumer's Guide defines distance education this way: "Distance education is instruction that occurs when the instructor and student are separated by distance or time, or both."*

*What do you think the judicial branch does? Well, the judicial branch is primarily responsible for dealing with persons or corporations that are accused of breaking a law or that are involved in any kind of legal dispute.*

*What does this have to do with the idea of community and belonging? MacIntyre says this, once you accept this narrative aspect of moral reflection you will notice that we can never seek for the good or exercise of the virtues only as individuals...*

*And what make you healthy? The things I spoke about before: pursuing meaning, purpose; cultivating healthy relationships.*

What we see then in this phase are several features which consistently mark it, that is, that lectures explicitly indicate what they are about to talk about through the choice of particular verbal groups, that lectures alert students about what is coming next in the lecture by asking rhetorical questions.

##### B. Conclusion Phase

Conclusion phase is an important part of academic lectures. There are some different features in terms of processes, participant chains and mood and modality. Here we see another type of process, in which lectures identify and classify what has already been discussed to ensure that the information is grasped by students. That is, the focus here is on relations between elements already raised in the Content phase. In addition, the participant roles are filled by the key terms and ideas of the theories presented throughout the lecture. For example:

*So that's why for Kant acting according to duty and acting freely in the sense of autonomously are one and the same.*

*And that's why it's possible to act autonomously, to choose for myself, for each of us to choose for ourselves as autonomous beings and for all of us to wind up willing the same moral law, the categorical imperative.*

Here we find a predominance of relational processes as signaled by the verbal group “is”, with participant roles filled by terms such as: “autonomously”.

I will give another example from course of justice.

*So incentives, that's not a decisive objections against Rawls' difference principle.*

*That's his answer to libertarian laissez faire economists.*

*That, in fact, is his reply to the libertarian.*

*That is the first answer.*

*This is the second reply to the meritocratic claim.*

The chain formed here is made up of nominal groups such as “his answer”, “his reply”, “the first answer”, and “the second reply”, all focusing on the topic of the lecture.

Another marker of this phase is in interpersonal choices. There is no mood variation, with almost all of the utterances being realized by the indicative declarative mood. In terms of modals, there are a few of kinds but none of them plays an important role. In this phase, lectures don't offer evaluative commentary on the content.

### C. Evaluation Phase

Lectures evaluate material not by attitudinal elements such as modals, but through the selection of one type of predominating process. Lectures primarily evaluate a point they have already made, which acts as a reinforcement to the strands of the Conclusion phase or Content phase by indicating judgment on information already given to listeners. I will give some examples.

*But it seems clear that such changes or similar ones are necessary to ensure a healthier U.S. family in the future.*

*... the importance of belonging to a church or religious organization seems greater to Americans than to Europeans.*

*For this reason, many people prefer another, more satisfactory, view of U.S. culture.*

*Local control of schools may seem very strange to some of you, but it will seem less strange if you consider how public schools in the United States are funded – that is, where money to run the schools comes from.*

*So the first benefit is we simply feel better.*

Through these examples, we can see that evaluation phase is also lake of mood variation and marked modality. And there are some obvious judgments like “necessary”, “greater”, “more satisfactory” and “less strange” showed in the selections. In this phase, lectures are revisiting the same points touched on in the conclusion or other phases and evaluating them so that students will know how to weigh each of them.

### D. Three Other Phases

Three other phases mark academic lectures. The first, Interaction phase, through which addressors maintain contact with their audiences in order both to reduce the distance between themselves and their listeners and to ensure that what has been taught in fact understood. I will give some examples from the justice lectures in Harvard University.

*Who would turn to go onto the side track and why would you do it? What would be your reason?*

*Anybody? Anybody else?*

*Why would you do it? What would be your reason? Who's willing to volunteer a reason?*

*Does everybody agree with that reason?*

And some other examples are from lectures of “Introduction to psychology”.

*Before discussing that example in a little bit more detail, any questions? What are your questions?*

*Any other questions?*

*Any questions about behaviorism? What are your questions about behaviorism?*

Second, Content phase reflects the lecturer's purpose and transmits theoretical information. In this phase, theories, models, and definitions are presented to listeners. I will give an example from lecture of *crime and violence in the United States*.

*The first theory says that people are good by nature. If a person turns to crime, the cause lies outside the person, not inside. In other words, crime and violence come from the environment, or society.*

There is an example from justice lectures of Harvard University.

*Second principle has to do with social and economic inequalities. Rawls calls it “the Difference Principle.” A principle that says, only those social and economic inequalities will be permitted that work to the benefit of the least well off.*

And Examples phase explains theoretical concepts through concrete examples. Here are some examples from lectures “Positive psychology”.

*Let me just give you a random example. Let's say, Monday morning, or Tuesday morning, you are walking toward 1504. And suddenly you see a friend of yours. A friend of yours you know who's genuine, is real- someone you trust...*

*Let me read you a few excerpts: “We will not be satisfied until justice rolls down like waters I mean, you can feel the water, you can feel that stream, you can see it, you can visualize it...”*

*Or for example, let's say you want to start an exercise in gym. You realize how important it is. You read the research. You are exposed to that research and you see it really has an important effect.*

## V. SUMMARY

Based on the analysis of 30 academic lecture discourses, I find:

First, each phase recurs discontinuously and is interspersed with others. So what emerges is a continual interweaving of threads of discourse which forms the macro-structure of academic lecture discourse.

Second, the lectures of different content include the six phases defined by Young: Discourse Structuring phase, Conclusion phase, Evaluation phase, Interaction phase, Content phase and Examples phase.

Third, Discourse Structuring phase, Conclusion phase and Evaluation phase are often not influenced by the content of lectures; they show similar ideational, interpersonal and textual meaning. Three other phases have a close relationship with the content of lectures, they have no similar features.

Through the description of phases, we see that each metadiscoursal phase has its own features. The Discourse Structuring phase is marked by processes of verbalization, by first and second person pronouns, by rhetorical questions, and by a type of modality. The Conclusion phase is mainly obvious in terms of relational processes in which key terms of lecture are identified. In other words, the focus here is on the relations between elements already raised in the Content phase. And participant roles are filled with key terms to ensure that students realize what the most important terms in the lecture were. In the Evaluation phase, the lectures emphasize these concepts by evaluating each, further ensuring that listeners know which views to adopt.

## VI. PEDAGOGICAL IMPLICATION

Phases reveal more accurate description of macro-structure of lectures than that of beginning, middle and end. As we have seen from the brief description of phases, what actually happens in the unfolding of the discourse is that introductory or predicting strands are interspersed throughout a lecture, precisely because there several information strands in which different content is transmitted. Similarly, there are several concluding strands that follow each discussion of new information. If one of the purposes of education is to familiarize students with the structure of lectures in order to facilitate their note taking, it is important to show them an accurate macro-structure. My point is that the theory of phase can provide a more realistic nature of the academic lectures. Only an accurate representation of macro-structure will facilitate students' processing of information.

It is important to identify for students, who have great difficulty in taking notes, that first, lecturers often clearly announce all new topics, and to acquaint them with the more common ways; second, that information is transmitted in several ways through theoretical discussion, through exemplification, and through summarization. If students know that the same information is transmitted in a number of ways, and that if they miss it the first time they will be able to grasp it later, they will be better able to deal with the information transmitted in lectures. If teachers can acquaint students with an analysis of macro-structure that accurately shows what goes on in the university lectures, their comprehension of information will be made easier. And with the knowledge of the ways in which lectures form their discourse, teachers will be to select appropriate features which indicate, for example, how speakers introduce their new points.

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