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PARADIGM SHIFT in Language :

transitivity in Halliday and Crombie

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Introduction

The grammatical approaches presented by Halliday and Crombie form part of a new paradigm in linguistics. Case grammar, which found its strongest theoretical proponent in Halliday and his 'transitivity', is an expression of this paradigm in which the emphasis is placed back on the meaning-based function of words and sentences rather than on a structuralistic 'transformative grammar' originating with Chomsky in the fifties. This is directly expressed by a method of clause analysis in which the meaning-based function of the words is used rather than a grammatical model based on the abstract positioning of words within sentences, and this is where the term 'transitivity' needs to be extended. The term is involved with the the role individual verb classes play in sentences, meaning that the terminology requires considerably more than the traditional definition allows: whether or not a verb requires an object. Halliday can assist us at this point. He says that "transitivity specifies the different types of process that are recognized in the language, and the structures by which they are expressed." (Halliday, 1985, pg. 101). Transitivity has revealed itself to be a complex subject, as demonstrated by the different approaches taken by linguists since Fillmore. In this assignment we will be looking at two contrasting approaches to 'transitivity': that presented by Halliday (1985), based on material and mental 'processes', and that of Crombie (1985), based on *dynamic, process* and *stative* predicate groups.

Transitivity systems

Before we begin with comparative sentence analysis it is first important to clearly lay out the processes used by Halliday and Crombie to help to classify verb 'transitivity'. Halliday defines the 'going-ons' of life as 'processes' which are represented in the form of language. In terms of traditional grammar, a 'process' can be considered that event or occurrence that results from the use of a verb. According to Halliday, such a 'process' consists of three components:

> (i) the process itself;
> (ii) participants in the process;
> (iii) circumstances associated with the process.
>   (Halliday, 1985, pg. 101).

Halliday divides process types into two major divisions, *material* and *mental* processes. *Material* processes are defined as processes of 'doing': "they express the notion that some entity 'does' something—which may be done 'to' some other entity." (Halliday, 1985, pg. 103). These material processes can be again divided into two major forms: *dispositive* or 'doing to' and *creative* or 'bringing about'.

e.g. The lion caught the tourist: *dispositive*
The man built the house: *creative.*

Another major distinction within the material processes division is between *event* and *action*. An action is the direct occurrence performed directly by the subject with material results: it something that is *done*. An event, however, is something that does not have observable material result: it is something that *happens*. Compare the following two sentences:

The lion sprang *action*
The mayor resigned *event*

Two further terms need to be classified before we can move to the second process type which will be analysed in this assignment: the names of the participants within material processes. The two participants are *ACTOR* (A) and *GOAL* (G). Actor is the name given to that element of a sentence which performs the process, and the goal is the result of the action. As will be demonstrated in the following example, the actor does not necessarily have to be in the 'subject' position within the sentence, and its meaning is therefore based on its function within the sentence rather than its position:

The lion (A) caught the tourist (G).
The tourist (G) was caught by the lion (A).

The second major type of process which will be discussed in this assignment are what Halliday refers to as *mental* processes. Halliday divides mental processes into three major types: *perception, affection* and *cognition*. Perception processes are those involved with the senses: smelling and seeing for example; affection processes involve the relation the participant has with an object, whether that be an 'idea' or a 'thing' (liking, fearing, hating etc.); cognition processes involve what the participant 'thinks' of a given object (thinking, knowing, understanding etc.). Halliday assigns the names *senser* and *phenomenon* to the two participants within a *mental* process and affixes the following criteria to these processes:

(i) there is always a human participant as 'senser';
(ii) the *phenomenon* may be a 'thing' or a 'fact';
(iii) simple present is used as the basis form—
    e.g. He is scared of ghosts. *He is being scared of ghosts;
(iv) the process can generally be realized in both directions—
    e.g. he liked the book/the book pleased him;
(v) cannot be realized by 'do' or happen'—
    e.g. What did John do? *He liked the book;
(Halliday, 1985, pp.108-111).

In a similar manner, Crombie is interested in the "semantic relationships that exist *within* propositions [clauses]" (Crombie, 1985, pg. 95). In order to avoid confusion at this point it may be useful to note terms that are used by Crombie which have similar functions to those of Halliday but which are named differently. Crombie refers to 'participants' as *arguments* and 'processes' as *predicates*. She notes three major types of predicates which it

will be revealed cross-over on one level or another with Halliday's terminology. Her predicate types can be distinguished as follows:

Type 1: **Dynamic predicates** (involving mental or physical activity)
(a) general activity (e.g. write/eat)
(b) Momentary activity (e.g. nod/glance/wink)
(c) Transitional event (e.g. arrive/leave)
(d) Mental activity (e.g. choose/decide)
(e) Factitive activity (an activity which brings an entity into being) (e.g. build/construct)

Type 2: **Process predicates** (involving processes in which in which there is no active, conscious activity) (e.g. deteriorate/boil/melt).

Type 3: **Stative predicates**
(a) Inert perception and cognition (e.g. understand/prefer/like)
(b) Relational (e.g. own/consist of/contain)
(Crombie, 1985, pg. 98)
In contrast to Halliday's participants which are kept constant within each of the two categories, Crombie developed a complex set of 'semantic roles' which differ depending on the predicate type. She defines five major categories: *Causal roles, Participation roles, Orientation-transition roles, Relational roles* and the *Abaxiant role*. These categories are involved with different classifications for the 'arguments' that specific predicate types can adopt. For example, *Process predicates* has 'process-participation roles' which are unique to the *Process predicates* category. These *Participation roles* include those roles which involve the "non-causal involvement of an entity or abstraction in an activity or with a process or state." (Crombie, 1985, pg. 102). Within each of these categories she defines for which type of predicate type the different roles can be assigned. This is quite a complex set of categories and distinctions, and at this stage it is safer to demonstrate them by showing examples from Crombie's work and contrasting them with those presented by Halliday.

Compa risons

The method within this paper is to take a number of sentences used in Halliday's analysis and a number of sentences used in Crombie's and analyse them in terms of the transitivity systems presented by the other. Hopefully from this analysis we will gain a clear idea of how the systems differ and in which ways they are related to one another.

Halliday examples

—The lion caught the tourist.
For Halliday, this is clearly a *material* process. The lion is the *actor* and the tourist the *goal.*
In addition the sentence is clearly an 'action' of the dispositive type,
For Crombie this sentence adopts a *Dynamic predicate* , which can be subdivided into the 'general activity' category. Here we can refer to Crombie's 'semantic roles': the lion is the *agent* (from the causal roles), and the tourist is the *patient* (from the participation roles).

—The lion sprang.
Halliday would refer to this sentence again as a material process. According to Halliday's model, goals need not be involved in the process, so 'the lion' becomes the solo *actor.*
Again the sentence falls into the category 'action' of the dispositive type.
Crombie would define the sentence again as a *Dynamic predicate,* although her terminology would place the sentence into the 'momentary activity' category. Like Halliday, 'the lion' would again become the *agent.*

—The mayor resigned.
Halliday would refer to this sentence as a *material* process, but this time he would refer to it as an 'event'. The mayor is again the *actor.*
Crombie would define this sentence as falling into the *dynamic predicate* category, and the mayor as the *agent.*

—A new approach is evolving.
Halliday would refer to this sentence as a *material* process falling into the second category 'event'. 'A new approach' is the actor and 'is evolving' is the process itself.
In contrast with Halliday's definition, Crombie would define this sentence as belonging to type 2: *Process predicates.* This involves the assigning of new semantic roles. 'A new approach' falls into the participation roles category and takes the name *Mutant* (Mu): the entity that is changed by the process (in this case of *evolving*).

—Children fear ghosts.
Halliday would refer to this sentence as a mental process of the *affection* type. The 'children' take the participant role of the 'senser' and the ghosts take the role of the 'phenomenon'.
Crombie would place this sentence into type 3: *Stative predicates,* category (a) *Inert*

perception and cognition. Again, contrasting semantic roles are assigned. Both categories come from the 'participation roles'. 'Children' are defined as being the *Experiencer* (E), and the ghost are defined as being the *Appertainant* (Ap), which is defined as being an "*entity* or *abstraction* experienced in a particular way." This can be compared to Halliday's criteria for mental processes in which the phenomenon is allowed to be either a 'thing' or a 'fact'.

—Do you know the city?
Halliday would refer to this sentence as a *mental* process, falling into the *cognition* type. The participants are again *senser* and *phenomenon,* taken by 'you' and 'the city' respectively.
Crombie would place this sentence again into type 3: *Stative predicates*, category (a) *Inert perception and cognition.* 'You' is the *Experiencer* and the 'the city' is the *Appertainant.* It is interesting to note that Crombie places it into the same category, whereas as Halliday has a different way to subdivide this particular level and so has a separate category for this type of process.

—[If there was anything out there] we'd hear it coming.
Halliday would refer to this sentence as a *mental* process, falling into the *perception* type. 'We' is the *senser* and 'it coming' is *phenomenon* (in this case, a fact).
Crombie would again place this sentence into type 3: *Stative predicates,* category (a) *Inert perception and cognition*, where 'we' is the *Experiencer*, and 'it coming' is the *Appertainant.* Here the three mental processes of Halliday (perception, affection and cognition) are contrasted with the single possibility available within the subdivisions provided by Crombie.

Crombie examples

—I smell petrol.
Crombie would place this sentence into type 3: *Stative predicate,* category (a) *Inert perception and cognition.* 'I' is the *Experiencer* and 'petrol' is the *Appertainant.*
Halliday would define this sentence as a mental process of the *perception* type, with 'I' taking the participant role of *senser* and 'petrol' of *phenomenon.*

—I am smelling petrol.
Crombie would define this sentence as falling into type 1: *Dynamic predicates*, category (a) *General activity.* 'I' is the *Agent* and 'petrol' is the *Patient.* The fact that Crombie would change the category because of this type of contrast in meaning is different to the way Halliday would characterise the sentence. He doesn't have a list of distinctions that refer to whether a sentence occurs directly or over a period of time.
Halliday would define the sentence again as a mental process of the *perception* type, with 'I' taking the participant role of *senser* and 'petrol' of *phenomenon.*

—The mechanic repaired the car.
Crombie would place this sentence into type 1: *Dynamic predicates*, category (a) *General*

activity. 'The mechanic' would take the role of *Agent* and 'the car' of *Patient.* Halliday would define this sentence as a *material* process of the 'action' type. 'The mechanic' is the *actor* and 'the car' is the *goal.*

—The butter melted.
Crombie would place the sentence into type 2: *Process predicates.* The semantic roles involved contrast again, giving us the term *Mutant* which is the entity changed by the process.
This precision of definition contrasts to Halliday's system which would simply refer to it as a *material* process. The butter is defined as being the *actor* according to what is referred to as the 'ergative function': "Halliday [. . .] defines this function in terms of an affected participant which is the one inherent role associated with action clauses, and which is the goal in a transitive and the actor in an intransitive clause." (Kennedy, 1982, pg. 85).

—The sun melted the butter.
Crombie would place the sentence again into type 2: *Process predicates.,* where 'the sun' takes a new semantic role of *Force* and 'the butter' is again the *Mutant.* A 'force' is described as a "non-sentient causative which precludes the explicit or implicit involvement of an agent" (Crombie, 1985, pg. 101).
Halliday, in not having the same amount of semantic roles to assign to the participants of this sentence, would refer to it again as being a *material* process in which 'the sun' is the *actor* and 'the butter' is the *goal.* The sentence is of course an 'event' because something is 'happening' rather than being directly 'done'.

—The plant grew.
Crombie would place this sentence into type 2: *Process predicates,* where 'the plant' becomes the *Mutant.* Halliday would refer to the sentence as a *material* process and an 'event'. Because of the ergative function, the plant would be defined as the *actor.*

—The boy grew tired.
Crombie would place this sentence into type 2: *Process predicates.* The boy is placed again into the semantic role of *Mutant.* The 'predicate' itself is defined as falling into the **Material Processes** category. (Crombie, 1985, pg. 85).
Halliday would define the sentence as a material process, and an 'event'. the boy is defined as being the *actor* because of the ergative function.

—The coin rolled down the hill.
Crombie would define this sentence as falling into type 1: *Dynamic predicates,* type (a) *General activity.* Contrasting semantic roles would be assigned. 'The coin' would become the *Object,* which Crombie defines as "the entity described as being in a particular location or as being involved in a transitional event." (Crombie, 1985, pg. 103). 'the hill' would be assigned the role of *Range,* which is defined by Crombie as being "the location of a static entity or the path or area traversed by a moving entity." (Crombie, 1985, pg. 103).
For Halliday, the sentence would simply be a *material* process, and an 'event'. 'The coin' would be the *actor* and the phrase 'down the hill' would be defined as being a 'circumstance associated with the process'. This contrasts to Crombie's more precise terminology for each of the roles played within the sentence.

—The music was heard by the prince.
Crombie would define this sentence as falling into type 3: *Stative predicates,* type (a) *Inert perception and cognition.* 'The prince' is the *Experiencer* and the 'the music' is the *Appertainant.*
Halliday would define this sentence as being a *mental* process of the *perception* type. 'The music' is the *phenomenon* and 'the prince' is the *senser.* This sentence demonstrates that this approach to grammar in both cases places semantic/participant roles based not on the position within the sentence but on the actual function of the words. In this passive form, the roles stay with the same words as when the sentence is in its active form: *The prince heard the music.* The passive form does not change the essential roles assigned to the words.

—He died of Polio.
Crombie would define this sentence as falling into type 1: *Dynamic predicates.* 'Polio' takes the causative semantic role of *Force,* whereas 'he' becomes the *Patient.*
The sentence could be rewritten in the following way: Polio killed him. In this sense, Halliday would define the sentence as being a *material* process and an 'event', in which 'polio' is the *actor* and 'he' is the *goal.*

—He made models from matches.
Crombie would define this sentence as falling into type 1: *Dynamic predicates,* category (e) *Factitive.* This category brings a number of new semantic roles with it. 'He' is the *Agent,* 'models' is the *Result* and 'from matches' is the *Material.* These roles are connected only to *factitative* predicate types, and are absent in the Halliday material/mental processes model.
Halliday would define this sentence as being a *material* process and an 'event'. 'He' would be defined as the *actor* and 'models' would be defined as the *goal* of the process, whereas 'from matches' would be defined as the 'circumstance associated with the process.'

—He dreamed a dream about the sea.
Crombie would define this sentence as falling into type 3: *Stative predicates,* category (a) *Inert perception and cognition.* 'He' would be defined as the *Experiencer,* and 'a dream about the sea' would be defined as the *Appertainant.*
Halliday would define this sentence as being a *mental* process of the 'cognitive' type. 'He' would be the *senser* and 'a dream about the sea' would be the *phenomenon.*

—John boiled the milk.
Crombie would place this sentence into type 1: *Dynamic predicates,* category (a) *General activity* where 'John' is the *Agent.* This sentence is viewed however as being of a 'double propositional' nature which can be rewritten as follows: John caused it (the milk boiled), in which 'the milk' is viewed as the *Mutant:* the entity which is changed by a process.
Halliday would define this sentence as being a *material* process and an 'action'. 'John' would be the *actor* and 'the milk' would be the *goal.*

Conclusions

It could be said that the models for the analysis of verb functions within clauses presented by Crombie and Halliday coincide on some levels. For example, Halliday uses the terms *Senser* and *Phenomenon* within his *mental* processes. Crombie, as a subdivision of the *Process predicates* type (a) *Inert perception and cognition*, two semantic roles can be assigned: *Experiencer* and *Appertainant.* These categories are practically the same, made even more clearly be Halliday's recognition of both 'things' and 'ideas' as types of *phenomenon* , just as Crombie recognises that the semantic role of *Appertainant* can be taken by an 'entity' or an 'abstraction'. We can name further areas of coincidence. Halliday's *mental* processes allow for an *actor* and a *goal,* which can be directly compared to Crombie's *Agent* and *Patient.*

If we observe the contrasts, however, they seem to far outweigh the similarities. Halliday has distinctions and categories that are not present in Crombie's system, just as Crombie distinguishes things which are not recognized within Halliday's system. Halliday, for example, in his *mental* process distinction recognises three contrasting verbal types: *perception, affection* and *cognition.* This system is absent in Crombie's, in which a single category within the division *Stative predicates:* type (a) *Inert perception and cognition* is allowed for. Crombie's system, however, in its recognition of many different types of 'semantic roles', makes a lot of classification that is completely unaccounted for in Halliday's version of transitivity. Crombie's *Process predicates,* for example, has a semantic role that is not considered by Halliday: *Mutant.* Crombie's 'factitive' *Dynamic predicates* has two semantic roles not included in Halliday's system: *Material* and *Result.* Crombie's complex list of 'semantic roles' in which elements within a sentence are given very particular and definable functions contrasts with Halliday's much less complicated 'participants' which are completely dependent on the process type. Other contrasts also present themselves. Crombie has a category which distinguishes between *Dynamic predicates* which occur 'momentarily' as opposed to those which occur as a 'general activity'. This contrast is further demonstrated when we observe Crombie's tendency to distinguish between 'stative' and 'dynamic' predicates which actually would remain in the same category according to Halliday (e.g. I smell the petrol, I am smelling the petrol). Halliday's use of the *mental* processes is completely confused when we observe that Crombie's *Dynamic predicates* have a *mental activity* subdivision, and that also within the *Stative predicates* type we observe the *Inert perception and cognition subdivision.* In this case, sentences that can be classified into the one category in Halliday's system have to span two completely different predicate types in Crombie's system.

This is, however, a question of the division of semantic space. Halliday has chosen a different emphasis to that of Crombie, and so some elements are emphasised by the one and left in a simplified form by the other. Although there are more contrasts than similarities between the two systems it is possible to conclude that they are united in the fact that they are involved in a particular way of looking at grammar. Here the verbs are

viewed as being a complex element within the sentence which determines the structure of the involved clause; here 'participants' (Halliday) or 'arguments' (Crombie) are involved directly in a verbal 'process'. The meaning of these 'processes' are related directly to the dynamics involved between the participants and the process itself, and both Crombie and Halliday have attempted to find categories which can help us to define how these verbal systems actually work.

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