

The TRANSITIVITY system

At the beginning of this course, we discussed one of the main tenets of systemic functional grammar, which is that language serves more than one function. That is, language allows us to enact relations and express attitudes and opinions as meaning (the interpersonal metafunction); construe experience as meaning (the experiential metafunction); and present these interpersonal and experiential meanings as part of a text in context (the textual metafunction).

Since language has evolved to serve the functions that it carries out, then the grammar of the language has, too, evolved to express these three different, but simultaneous, meanings. Systemic functional grammar, then, is the theory or the framework that attempts to describe this grammar of the language from a functional, systemic perspective. In Chapter 4, we discussed the MOOD system, the set of grammatical resources for expressing interpersonal meaning; in Chapter 6, we discussed the THEME system, for expressing textual meaning; and in Chapter 5, we discussed the TRANSITIVITY system, for expressing experiential meaning.

In this summary, we'll discuss a few aspects of the transitivity system, mainly the process types and associated participant roles, and we'll end with a brief overview of circumstances or circumstantial elements.

❖ Process type

Since the grammar of experiential meaning has to do with construing experience, then it has to be able to express or model the various domains of human experience, which are varied and diverse. However, we can begin by categorizing these various domains into inner and outer experience; that is, is the experience construed as part of our own consciousness (mental processes, for example), or happening outside it (material process, for example). From there, we can look at outside experiences as either changing through time (material processes) or being relatively stable¹ (relational processes).

These three process types — material, mental, and relational — are the main process types of the grammar of experiential meaning. At their intersection, we find the three other, minor, process types. At the intersection of the material and the mental, we find the **behavioral** process type; at the intersection of the material and the relational, we find the **existential**; and at the intersection of the mental and the relational, we find the **verbal** process type. The table below summarizes the attributes of each process type as well as the attendant participant roles.

¹ Matthiessen, C.M.I.M. (1995) *Lexicogrammatical Cartography: English Systems*. Tokyo: International Language Sciences Publishers, p. 202.

Process type	Domain of experience expressed	Participant roles and other characteristics
Major process types		
Material	Physical change; doings and happenings	Actor; Goal; Scope; Beneficiary
Mental	Conscious experiences; feelings, cognition, and perception	Senser, has to be sentient; Phenomenon;
Relational	Construes relations of being and having	In identifying clauses: Token and Value; In attributive clauses: Attribute and Carrier
Minor process types		
Behavioral	Construes physical manifestations of sensing, in addition to physiological behaviors.	Behavior; Behavior (analogous to the Scope of a material process)
Verbal	Construes acts of communication (symbolic exchanges of meaning)	Sayer; Receiver (analogous to the Beneficiary of a material process); Verbiage (analogous to the Scope of a material process); Target (analogous to the Goal of a material process)
Existential	Construes existence as a happening — as being in existence	Existent

Summary of the major process types of the TRANSITIVITY system²

Since the domains of experience are varied, then not only are the processes different, but the participants associated with each process type are different, too, as is shown in the table above and as will be discussed below.

² Halliday, M.A.K. and Matthiessen, C.M.I.M. (2014) *An Introduction to Functional Grammar*. Routledge, pp. 180–256.

◆ Material processes

Material processes cover the doings-and-happenings domain or field of experience. That is, physical actions and events that occur outside of our consciousness. The material process is realized typically by verbs that express action and activity, such as “run,” “break,” “award,” “build,” “fix,” “come,” “go,” “spring,” “catch,” “make,” “form,” among many, many others³.

The material process is associated with several participant roles, chief among them is the **Actor**, which is the main participant in such material clauses. The Actor is the participant mainly involved in the action or event expressed by the Process. The Actor isn't restricted in terms of which nominal groups it can be realized by, so it can be animate or inanimate.

- (1) I travelled the globe.
- (2) Electrons orbit the nucleus.
- (3) He fixed the fence.

1

I	travelled	the globe
Actor	Process: material	Scope: entity

2

Electrons	orbit	the nucleus
Actor	Process: material	Scope: entity

3

He	fixed	the fence
Actor	Process: material	Goal

The **Goal** is the entity or thing that was directly affected or impacted by the process. So, in a material clause with Actor and Goal, the Actor is the main participant involved in the Process while the Goal is the main participant impacted by the Process⁴. So, in example 3 above, “the fence” was directly impacted by the action expressed by the Process and enacted mainly by the Actor.

Note that there can be certain clauses with only an Actor, not a Goal. These are clauses where the Actor “undergoes” the process; clauses that express happenings rather than doings, i.e., something happening to the Actor rather than the Actor affecting a Goal. Usually, the verbs in such clauses are of the “intransitive” type.

³ For more examples of verbs realizing material processes, see Halliday, M.A.K. and Matthiessen, C.M.I.M. (2014) *An Introduction to Functional Grammar*. Routledge, pp. 234–236.

⁴ Note that process refers generally to the process, event, or action indicated by the clause, while Process (capitalized) refers to the functional role realized by the verbal group.

The house	collapsed
Actor	Process: material

Note how, in the clause above, the nominal group “the house” is the entity undergoing the collapse, so it is the Actor in the experiential structure of this clause. It does not function as a Goal simply because there is no action or activity that extends from the Actor and affects it. Observe the next clause, which does have a Goal.

The bulldozer	destroyed	the house
Actor	Process: material	Goal

In this clause, we have an Actor, the nominal group “The bulldozer,” which initiates or carries out the action expressed in the clause. This act directly affects the other participant, the nominal group “the house,” and this is why it functions as the Goal in the experiential structure of this clause.

Of course, some material clauses can include only a Goal, but these occur with what is traditionally known as “passive” or “passive voice” constructions. Observe the following example:

The house	was destroyed	by the bulldozer
Goal	Process: material	Actor

Here, it’s clear that the entity directly affected by the act expressed in the clause is the nominal group “The house,” and the entity that initiated or carried out the act is “the bulldozer,” appearing as part of the prepositional phrase “by the bulldozer.”

Of course, one of the main features of passive voice constructions is that they “hide” the agent, or the Actor, responsible for the event or act. As such, the by-phrase can be omitted, and the only participant in the clause would be the Goal:

The house	was destroyed
Goal	Process: material

Remember that the Process in the experiential structure of the clause is realized by the entire verbal group, whether it includes one verb, such as “collapsed” above, or independent Finite and Predicator elements, such as “was destroyed.”

Another participant that is mentioned in the tabulated examples above is **Scope**. This participant role is part of a larger category, Range. The main difference between Scope and Goal is that Scope is not affected or impacted by the Process. It is, however, the domain where or along which the Process unfolds. In examples (1) and (2) above, “the globe” and “the nucleus” are not directly impacted by the Process “travelled” and “orbit,” so they don’t realize the Goal participant role. They, however, construe the domain along which these Processes unfold, so they do realize the Scope participant role.

There are two types of Scope, **entity** and **process**, and the key to differentiating between them is that Scope: entity exists outside the unfolding of the Process; that is, it existed before the Process came to be, and it will exist after it is completed. Scope: process, on the other hand, is an extension

of the Process, so it can't exist outside of the Process. You'll find Scope: process mostly in clauses where the verb is "general" or "empty," such as *do* in "do a dance"; *take* in "take a shower"; and *make* in "make a mistake."

(4) I crossed the mountain.

(5) He played tennis.

4

I	crossed	the mountain
Actor	Process: material	Scope: entity

5

He	played	tennis
Actor	Process: material	Scope: process

But what about clauses such as "I gave her the present" or "I gave the parcel to the mailman." Clearly, "I" in both cases realizes the Actor participant role, and "gave" realizes the Process, but what about "the present," "the parcel," "her," and "to the mailman"?

(6) I gave her the present.

(7) I gave the parcel to the mailman.

In (6) and (7), "the present" and "the parcel" both realize the Goal participant role, since they are directly affected by the Process (the act of transfer). However, there are other entities that are somehow affected by the Process, "her" and "to the mailman." In both cases, they receive something. As such, both realize the **Beneficiary** participant role. Note how the Beneficiary can be realized by nominal groups as well as a prepositional phrase.

6

I	gave	her	the present
Actor	Process: material	Beneficiary	Goal

7

I	gave	the parcel	to the mailman
Actor	Process: material	Goal	Beneficiary

◆ Mental processes

Mental processes construe experience as part of our inner consciousness; that is, they construe as part of the grammar inner experiences: emotions, desire, perceptions, and thoughts. As such, the four main categories realizing mental Processes are verbs of emotion, desire, perception, and cognition.

- Examples of emotive verbs: like, fancy, love, adore, dislike, hate, detest, despise.
- Examples of desiderative verbs: want, desire, wish, hope, need.
- Examples of perceptive verbs: perceive, sense, see, notice, glimpse, hear.
- Examples of cognitive verbs: think, believe, suppose, expect, consider, know, understand.

Associated with mental processes are two participant roles: the **Senser** and the **Phenomenon**. Simply put, the Senser is the entity that feels, perceives, and thinks. As such, the Senser is restricted in terms of the nominal groups that it can be realized by: they can only be considered animate or sentient; that is, capable of thought or emotion. So, in a normal context, the clause ?“The book thought I was funny,” doesn’t really make a lot of sense.

The Phenomenon, on the other hand, is much broader than the Senser in that it can be realized by entities and things. So, for example, in the clause “I liked the book,” “the book” realizes the Phenomenon participant role. And, in “I saw the two men run away,” the clause “the two men run away” realizes the Phenomenon participant role.

(8) I liked the book.

(9) I saw the two men run away.

8

I	liked	the book
Senser	Process: mental	Phenomenon

9

I	saw	the two men run away
Senser	Process: mental	Phenomenon

Note that, much like in material and other process types, the participant roles don’t shift if the clause is passivized. So, the participant roles in (9) above will remain the same in the passive version of the clause “The book was liked by me.”

(10) The book was liked by me.

10

The book	was liked	by me
Phenomenon	Process: mental	Senser

Note too that some mental verbs have counterparts or pairs that shift the perspective of the event expressed in the clause from Senser Process Phenomenon to Phenomenon Process Senser and vice versa. For instance, we have the pairs understand/convince; fear/frighten; like/please; and

dislike/displease. Each member of each pair construes the mental process from the perspective of the Phenomenon or the Senser. Observe the following examples:

- (11) I believed the article.
- (12) The article convinced me.
- (13) I fear dogs.
- (14) Dogs frighten me.
- (15) I like travelling.
- (16) Travelling pleases me.

11

I	believed	the article
Senser	Process: mental	Phenomenon

12

The article	convinced	me
Phenomenon	Process: mental	Senser

13

I	fear	dogs
Senser	Process: mental	Phenomenon

14

Dogs	frighten	me
Phenomenon	Process: mental	Senser

15

I	like	travelling
Senser	Process: mental	Phenomenon

16

Travelling	pleases	me
Phenomenon	Process: mental	Senser

◇ Projection in mental processes

Mental processes have the, rather unique, property to set up another clause as the projection of linguistic content therein. In other words, mental processes can set up another clause as having a direct relationship to the mental clause; that of being the representation of its linguistic content. So, for example, in “I think that she is telling the truth,” we have two clauses: the mental clause, which is the projecting one “I think,” and the projected clause “that she is telling the truth.”

An important distinction here is the fact that projected clauses are not part of the projected clause; that is, the experiential structure of the construction “I think that she is telling the truth” is: (i) “I think”, with *I* realizing the Senser function and the verbal group *think* realizing the mental Process; (ii) that she is telling the truth, which is the projected clause and which has no function as part of the mental clause “I think.” Of course, clause (ii) does have its own experiential structure, but we’re only concerned here with the fact that it is not part of the mental clause itself.

To make matters simple, we will argue here that whether mental clauses project or not depends on the type of sensing that is encoded within the clause itself; that is, it depends on the type of verb realizing the mental Process. Both **cognitive** and **desiderative** verbs **project** clauses, while **emotive** and **perceptive** verbs **do not**. On the other hand, emotive and perceptive verbs **can include an embedded clause as a phenomenon**. Here are a few examples:

- (i) Example of projecting cognitive mental process: “I believe that she is smart.”

I	believe	that she is smart
Senser	Process: mental	

- (ii) Example of projecting desiderative mental process: “I want her to leave.”

I	want	her to leave
Senser	Process: mental	

- (iii) Example of embedding perceptive mental process: “I saw two men running away.”

I	saw	two men running away
Senser	Process: mental	Phenomenon

- (iv) Example of embedding emotive mental process: “I fear that they have abandoned us”

I	fear	that they have abandoned us
Senser	Process: mental	Phenomenon

Note, finally, that we’re not saying here that cognitive or desiderative mental processes can’t have a phenomenon; they can (and do), and the following four examples show every type of mental process in a clause with a Phenomenon. What we are saying is that, when there is another clause related to the mental clause in the sentence, it could either be a projected clause or an embedded Phenomenon, and this depends on the type of mental process itself.

- (i) Example of cognitive mental process with Phenomenon: “He remembers the celebrations”

He	remembers	the celebrations
Senser	Process: mental	Phenomenon

- (ii) Example of desiderative mental process with Phenomenon: “They want a fair chance.”

They	want	a fair chance
Senser	Process: mental	Phenomenon

- (iii) Example of perceptive mental process with Phenomenon: “I heard the whistle.”

I	heard	the whistle
Senser	Process: mental	Phenomenon

- (iv) Example of emotive mental process with Phenomenon: “She fears cats.”

She	fears	cats
Senser	Process: mental	Phenomenon

◆ Relational processes

A relational process construes relations of being and having. In other words, it presents a relation between item 1 and item 2 in terms of being or having. The grammar of relational processes is complex, as complex as the domain of experience that it construes, but we can pinpoint two main modes of relation: identifying and attributive. We argued in class that there are three different types of relational processes: Intensive, Possessive, and Circumstantial. Here, however, we will only be concerned with the Intensive type.

We’ll begin by drawing the distinction between **attributive** and **identifying** clauses. Observe the following two clauses:

- (17) She is very smart.
(18) She is the smartest.

At first blush, these two clauses might seem similar, but they are very different. Clause (17) construes the Subject as part of a class of smart people (class-membership), while clause (18) identifies the Subject as “the smartest in the class” (identity). In other words, clause (17) attributes being very smart to the Subject, while clause (18) identifies the Subject as the smartest in the class. Clause (18) then, identifies the Subject and that who is the smartest in the class as one and the same entity.

From this, we can understand the main feature of identifying clauses: reversibility. Since both the Subject and the nominal group in clause (18) refer to the same entity, then the clause can be reversed without little change in meaning: She is the smartest in the class :: the smartest in the class is her. This is the **main distinction** between identifying and attributive relational clauses: identifying clauses are reversible, while attributive ones are not. ?“Very smart is her” is stilted, unless the speaker wishes to construe “very smart” and “her” as having the same identity; in other words, unless this is an identifying clause.

17

She	is	very smart
Carrier	Process: relational	Attribute

18

She	is	the smartest
Token	Process: relational	Value

There are a few other distinctions between attributive and identifying clauses. Attributive clauses have a Carrier, typically the Subject, and an Attribute, the thing that is attributed to the Subject. Usually, the Attribute is an adjective or an indefinite nominal group.

(19) He is smart.

(20) He is an architect.

19

He	is	smart
Carrier	Process: relational	Attribute

20

He	is	an architect
Carrier	Process: relational	Attribute

Of course, the Attribute can also be a circumstantial element. Observe the following examples:

(21) The meeting is at nine.

(22) The kitchen is at the back of the house.

21

The meeting	is	at nine
Carrier	Process: relational	Attribute

22

The kitchen	is	at the back of the house
Carrier	Process: relational	Attribute

Identifying clauses, on the other hand, have Token and Value. We'll discuss how to identify them below, but note that the Token and Value typically appear as definite nominal groups. So (22) below is an identifying relational clause, since both nominal groups are definite.

(23) My dad is the architect.

23

My dad	is	the architect
Value	Process: relational	Token

Since in identifying clauses both nominal groups can be definite, and since they can be easily reversed (passivized), then it is difficult to figure out which nominal group realizes the Token and which realizes the Value. The main distinction here is that, in an active clause, the Subject is Token and the Complement is Value, but with the main verb in relational clauses being the copular verb “be” (is; was; were; am; are), it is difficult to figure out whether the clause is active or passive.

To get around this, we can replace the copular verb in the original clause with “represent/is represented by” and see which version better fits. If “represents” better fits the clause and is close to the original meaning, then the original clause is active and, as such, the Subject is Token. If on the other hand “is/was represented by” fits better, then the original clause is passive and the Subject is Value. A few examples will make this clearer. Observe the following clauses:

(24) Shakespeare was the most well-known poet of his time.

(25) Birzeit's finest are the best in this class.

Since both (24) and (25) are reversible, then they're both identifying clauses. Let's start with (24) and apply our test:

(24) Shakespeare represents the most well-known poet in all of England.

(24) Shakespeare was represented by the most well-known poet in all of England.

It is clear that (24) is the clause closest to (24) in meaning, and, since, (24) is active, that means that (24) — the original clause — is active. As such, “Shakespeare” is Token and “the most well-known poet of his time” is Value.

(24)

Shakespeare	was	the most well-known poet of his time
Token	Process: relational	Value

Now let's see how (25) fares in our test:

(25) Birzeit's finest represent the best in this class.

(25) Birzeit's finest are represented by the best in this class.

It is clear that (25) is closest to the meaning of the original clause. As such, (25) is a passive clause and the Subject, “Birzeit’s finest,” is Value; “the best in this class” is Token.

(25)

Birzeit’s finest	are	the best in this class
Value	Process: relational	Token

Admittedly, examples like (25) are difficult to interpret without much context, but the examples that you’ll come across in your studies and own work will be furnished with the proper context or would be (hopefully) easier to interpret.

◆ Behavioral processes

As we discussed earlier, the material, mental, and relational processes are the three primary process types in the experiential grammar of the clause. We can now start to discuss the three other, minor, process types, beginning with the behavioral process, which is found at the intersection between the material and mental process types.

Simply put, behavioral processes represent outer manifestation of inner experiences; that is, they can be thought of as encoding the active counterparts of inert mental processes. So, for instance, we have the inert, mental clause “I saw the students” and we have the active, behavioral clause “I watched the game”; we have the inert, mental “I heard the birds” and we have the active, behavioral “I listened.”

(i) I watched the game.

I	watched	the game
Behaver	Process: behavioral	Behavior

(ii) I listened.

I	listened
Behaver	Process: behavioral

As can be noted from the above analyses, behavioral processes are associated with an entity, the Behaver, that is usually sentient, like the Senser of a mental process. Usually, behavioral clauses include only the Behaver and the Process itself; however, we can have clauses where there is another participant that realizes the actual behavior itself, which we label Behavior and which is closely related to the Scope of a material process.

(iii) They danced a great dance.

They	danced	a great dance
Behaver	Process: behavioral	Behavior

Note also that behavioral processes don't include active counterparts of inert mental processes, but also physiological human behaviors such as *cry, laugh, smile, sigh, frown, whine, nod, breathe, sneeze, cough, yawn, sing, dance, lie down, sit up, stand*, among others.

Behavioral processes are, probably, the most indistinct process type; however, their main feature as encoding the manifestation of inner sensing or physiological human behavior gives us a clue that the process type here is behavioral rather than material or behavioral. Observe the examples below:

- (i) Don't bother me! I'm thinking!
- (ii) He laughed with joy.
- (iii) She breathed a sigh of relief.
- (iv) They sang a beautiful song.

All of these clauses above are behavioral, and here is why: In (i), we have the clause "I'm thinking," where the present-in-present tells us that this is an active process; as opposed to the inert mental "I think he is smart." In (ii), we have an active manifestation of an emotion (happiness), as such the process here is behavioral. In (iii), we have a human physiological process (breathing); and in (iv), we have a process that is closer to the material type than the mental type; however, it is considered a behavioral process because it involves an active behavior, singing.

◆ Verbal processes

Verbal processes encode exchanges of meaning and acts of communication. That is, they encode "saying" processes. The main participant in a verbal process is the Sayer, the source of the "saying" or the exchange of meaning. The "saying" could also be directed at an addressee, which is labelled the Receiver and which is usually sentient or animate, as the following example shows:

- (i) She said to me that the exam was easy.

She	said	to me	that the exam was easy
Sayer	Process: Verbal	Receiver	

Note how, much like mental processes, verbal processes can project other clauses as locutions; as the linguistic content of what was said. The difference between mental and verbal projection is that, if there is another clause related to the verbal one, then it is always projected; there are no embedded pre-projected clauses in verbal clauses.

Another participant in verbal clauses is the Verbiage, which is (i) the content of what was said or (ii) the label of what was said. In terms of (i), the Verbiage delimits the scope of what was said, as in "They announced an agreement on academic exchange." And, in terms of (ii), the Verbiage is simply the "name" of the saying as in: "He asked us a question" or "They issued a command to all participants." The Verbiage could also be the name of the language, as in: "They spoke French."

(i)			
They	announced	an agreement on academic exchange	
Sayer	Process: Verbal	Verbiage	

(ii)

He	asked	us	a question
Sayer	Process: Verbal	Receiver	Verbiage

(iii)

They	issued	a command	to all participants
Sayer	Process: Verbal	Verbiage	Receiver

(iv)

They	spoke	French
Sayer	Process: Verbal	Verbiage

Finally, we have the Target participant role, which appears with targeting or (verbal) impact verbs such as *accuse*, *blame*, *congratulate*, *criticize*, *praise*, and *rebuke*, among others.

They	praised	her	to her parents
Sayer	Process: Verbal	Target	Receiver

One final note worth mentioning with regards to verbal processes is that there are some verbs which encode exchanges of meaning but which cannot project, such as *Speak*, *talk*, *argue*, *converse*, *confer*, *chat*, *chatter*, *gossip*, among others. As such, we can't have **"They talked that the exam was easy"*; however, we can have a Receiver with some of these verbs, as in *"They spoke to each other."*

They	chatted	to each other
Sayer	Process: Verbal	Receiver

◆ Existential processes

Existential processes essentially construe existence — it is the limiting case of “being.” These processes are associated with one participant only, the Existent, and they typically occur in structures starting with “There” as an empty or dummy Subject.

(i) There are a few major reasons for this interview.

There	are	a few major reasons for this interview
	Process: Existential	Existent

(ii) On the left, there is a big house.

On the left	there	is	a big house
Circumstance: Location		Process: Existential	Existent

(iii) On the wall is a picture

On the wall	is	a picture
Circumstance: Location	Process: Existential	Existent

Clause (iii) above might be difficult to interpret as an existential or a relational clause, but note how the tag-question here would be “isn’t there” as in “On the wall is a picture, isn’t there.” As such, we can conclude that it is an existential clause with an existential Process and an Existent.

❖ Circumstances

Circumstances, or circumstantial elements, are the third element constituting the experiential structure of the clause (along with the Process and the Participants). They add information about the unfolding of the Process in terms of time, place, manner, extent, etc. Circumstances are not inherent in the experiential structure of the clause — at least not to the extent that the Process and Participants are. As such, they can be thought of as peripheral, optional elements. As a function of them being peripheral, Circumstances can occur with virtually all process types; they not limited to one particular process type or another, although there are some associations that we will not get to here. Note that we’ve already met Circumstantial elements when we discussed circumstantial Adjuncts in the interpersonal structure of the clause in Chapter 4.

Overall, there are nine different types of Circumstances; however, we will mention only five here:

(i) Circumstance of Location: Time and Place

I	saw	her	on campus
Senser	Pr: Mental	Phenomenon	Circumstance of Location: Place

I	saw	her	at 8:00
Senser	Pr: Mental	Phenomenon	Circumstance of Location: Time

(ii) Circumstance of Extent: Temporal and Spatial

He	ran	for eight miles
Actor	Pr: Material	Circumstance of Extent: Spatial

He	worked	for three consecutive nights
Actor	Pr: Material	Circumstance of Extent: Temporal

(iii) Circumstance of Manner: Means, Quality, and Comparison

They	wrote	the exam	quickly
Actor	Pr: Material	Goal	Circumstance of Manner: Quality

They	wrote	the exam	with their laptops
Actor	Pr: Material	Goal	Circumstance of Manner: Means

They	wrote	the exam	like professionals
Actor	Pr: Material	Goal	Circumstance of Manner: Comparison

(iv) Circumstance of Cause: Reason, Purpose, and Behalf

He	died	for his country
Actor	Pr: Material	Circumstance of Cause: Purpose

She	sang	out of love
Behaver	Pr: Behavioral	Circumstance of Cause: Reason

They	announced	the warning	on behalf of the government
Sayer	Pr: Verbal	Verbiage	Circumstance of Cause: Behalf

(v) Circumstance of Matter (the matter or the topic)

They	talked	about the war
Sayer	Pr: Verbal	Circumstance of Matter

She	was reminded	of her childhood
Senser	Pr: Mental	Circumstance of Matter