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## Transitivity in Pakistani English: A Corpus-based Approach towards Mapping Frequency Profiles



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**Abstract:** *This paper aims at building frequency profiles based on transitivity patterns of a small number of text corpora belonging to Pakistani English newspaper editorials. The profiles have been built by using UAM Corpus Tool (O' Donnell, 2008) to explore transitivity features. The empirical analysis then has been compared with the frequency profiles of English language (Matthiessen, 2006 and Stubbs, 1996) to establish common features. The present work draws inspiration by Michael Halliday who is known as one of the pioneer corpus linguists since his early work on the Chinese language (Halliday 1956, cited in Halliday 1993). Mapping his (ibid) study on the BNC model he concluded that the relative frequencies of past and non-past are about 50-50 and the relative frequencies of positive and negative are about 9-1 (reported in Halliday 1993). Similarly, the present study looks closer to Standard English, and this is partially because the editorials are written by professional writers, and are well edited before printing.*

**Key Words:** Systemic Functional Grammar, Transitivity, Corpus Linguistics, Frequency Profiles, Pakistani English

### Introduction

The present study is designed to report on exploratory descriptions of the system of transitivity in the grammar of Pakistani Newspaper English. The important aim is to build up a quantitative profile of the transitivity system by investigating how frequently different options in transitivity are employed in Pakistani journalistic discourse and secondly to relate this quantitative profile to the ideological assumptions in the selected texts. The second aim will lead us to the investigation of a systemic relation of the quantitative transitivity profile and the ideological patterns in the selected texts. Since the study is based on the Hallidayan interpretation of the

transitivity system, therefore, we will begin with the functional approach to transitivity. From the Hallidayan Grammar (Halliday, 1985/94) transitivity construes our experiential world for the passing of events through the lexicogrammar. Based on this perspective, a clause can further be distinguished as a quantum of change representing the experiential world. Therefore, interpreting transitivity from the paradigmatic choices helps to measure the tendency for construing our experience which further realises meaning potential for this quantum of change.

Broadly speaking, the study will summarize an account of the transitivity potential of the English language (Matthiessen, 1995). We will

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then look at the quantitative transitivity frequency profile of Pakistani journalistic discourse in order to report readers the differences and will start by first of individual systems — ‘Process Types and Circumstantiation (circumstantial clause systems), in particular, and then of the intersections of these systems. Reported in this way, transitivity is seen as a system rather than a set of discrete structures and we can model it as a system network’. This system network demonstrates that transitivity is a system of systems (Halliday and Matthiessen, 2014) that the transitivity system is realized by the definite clauses. It further configures Process Types, Participant and Circumstance Types, and these elements help to portray and construe our experience for the flow of events under what goes on both inside and around us. This specific configuration has the potential to construe meanings from the experience. Broadly speaking, the study has explored that both qualitative and quantitative patterns in transitivity correlate in the construal of the experiential world. So, it can further be profitably extended to other delicate systems within or outside the transitivity system. However, a similar study can also be applied to other than English languages in Pakistan such as Urdu, Punjabi or Siraiki languages.

## Review of the Related Literature

According to Sinclair (1991), a good corpus size is not strictly based on the given number of words, sentences or even articles. It practically depends on the items or structure that is being analyzed. He (ibid) further argues that the size is not the only issue to be addressed but the following remain in focus:

- a good variety of sources to ensure modelling real patterns of the text type, not the idiolect of a writer, and
- a representative selection of text, a balanced selection, etc.

Before proceeding, we would like to report the readers that text-based investigations based on the transitivity framework are very well-established traditions. Halliday and Hasan (1976) and Halliday (1978) are well-recognized contributions to the understanding of text-based analyses. Hopper and Thompson (1980) is a major resource concerning the transitivity in grammar and discourse. That presented readers with the profile of transitivity choices which play an important role in maintaining the experiential

world. Also, Davidse (1996) has shown the strength of a corpus-based approach to the description and interpretation of transitivity choices in the given data. This is worth to mention that the cited works mainly depended on the physical count of frequency profiles of transitivity choices which described the general features of the English clause system. For example, basing his study on the Bank of English corpus Halliday found that

*"The relative frequencies of past and non-past are about 50-50 and the relative frequencies on the polarity pole of positive and negative are about 9-1. These figures also provided evidence that systems in the English language tend to be measured either equally (as in past and non-past) or in the ratio of 9:1 (as in positive and negative), as predicted by Halliday"* (as reported in Halliday, 1993 p.95).

In his study on the system of transitivity, Matthiessen (1999) has found a relationship between the quantitative profile of the transitivity system and qualitative patterns and the aspects of the system. He (ibid) conducted his study by analyzing 2072 clauses. However, the major aim of his study (ibid) was not to produce results but rather to explore whether there emerged any quantitative patterns that could inform future research and such patterns did appear - For a fuller detail see Matthiessen (1999).

## Research Methodology

Since, the study is described to have set out quantitative profiles of the transitivity system in Pakistani journalistic discourse, and for this purpose the corpus comprising 4292 clauses were analyzed. This is significant to report that there is a dearth in research of this kind so there is a big need for future work on a large scale both in spoken and written genres. However, the scope of this study did not inspire to produce absolute results but rather to explore whether this little corpus would guide any future study would emerge. Based on the findings, we can report that certain process types dominate (e.g., material, relational with spatial and temporal circumstantiation types whereas, the others appear in less percentage (e.g., behavioural, existential process types, and circumstance types of angles and manner). We have analyzed different news editorial samples to build a quantitative profile of Pakistani newspaper discourse. The data consists of full newspaper

editorial texts that commutatively count to 4292 clauses and 7120 segments. Compared to other researches based on classical corpus studies like Brown corpus counting one million words my sample looks very tiny. Since, we have used the UAM corpus tool (O' Donnel, 2008) for generating frequencies, this makes the effort error-free. However, for a full-scale analysis one has to perform the analyses manually and this effort limits the sample size to manageable data as far as the hand-on labour is concerned but to address the major research aim we have selected the sample to deem representative of it.

Within the SFL, we find two simultaneous systems operating at the transitivity level, process types, and agency. Both notions refer to the construal of experience at the most delicate level as elaborated by Halliday and Matthiessen (2014). Therefore, we have, at the first step, attempted to gather the frequency distribution of the occurrences of the main process types. The frequency count summarized illustrates the portrayal to help readers make judgments how an event has been reported. For doing this, a greater degree of delicacy has been maintained which realizes the deeper level of annotation of the selected data than a significant interpretation.

The construal network has revealed participant types in intersected options with their associated process types. For example, 'actor' 'goal' 'phenomenon' 'senser' and 'attribute' count the higher frequency distribution, and in 'verbal' process types 'sayer' has a much higher ratio as compared to the 'surrogate' which shows that majority of the verbal clause types employ human beings projecting their voice. Such a varied skewing in the overall scheme of distribution of the process types with their associated participants and circumstantial elements construes domains of meaning.

Systemic options within these systems may lead further to more delicate systems; for example, 'mental' leads to the system types of sensing ('perception/ cognition/ desideration/ and emotion'). Finally, transitivity systems may also be interrelated through conditioning: one systemic option may be conditioned by another one; for example, if a clause is 'verbal', it is also 'middle' if

a clause is 'existential', it is also 'middle'. A large data on such natural examples of all the various systemic options is given in Matthiessen (1995).

## Data Analysis and Interpretation

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In this section, we will discuss the transitivity choices (Halliday and Matthiessen, 2014) in the cumulative sample of the data. We intend to provide readers the frequency profile of the process types in Pakistani journalistic discourse which builds the overall experiential world in the Pakistani journalistic discourse. The study also reveals the primary investigation of the quantitative profiles of the system of transitivity in Pakistani journalistic discourse, quantifying the various transitivity options in the selected journalistic texts. In particular, it records the relative frequencies of different process types in the selected editorials, different circumstance types, and the relative frequencies of their combinations. Thus, the corpus built in the following sections draws on the main features of Pakistani journalistic discourse.

## Frequency Profiles of Transitivity Patterns

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Based on Halliday and Matthiessen's (2014) account of the transitivity in a clause, we have mapped out this work as a representation system in a clause for the journalistic texts with an assumption that the transitivity choices reflect the underlying ideology of the writers. But before having count on the process types we will use that systemic account to investigate the relative frequency of the process, participants, and circumstance types within the transitivity system.

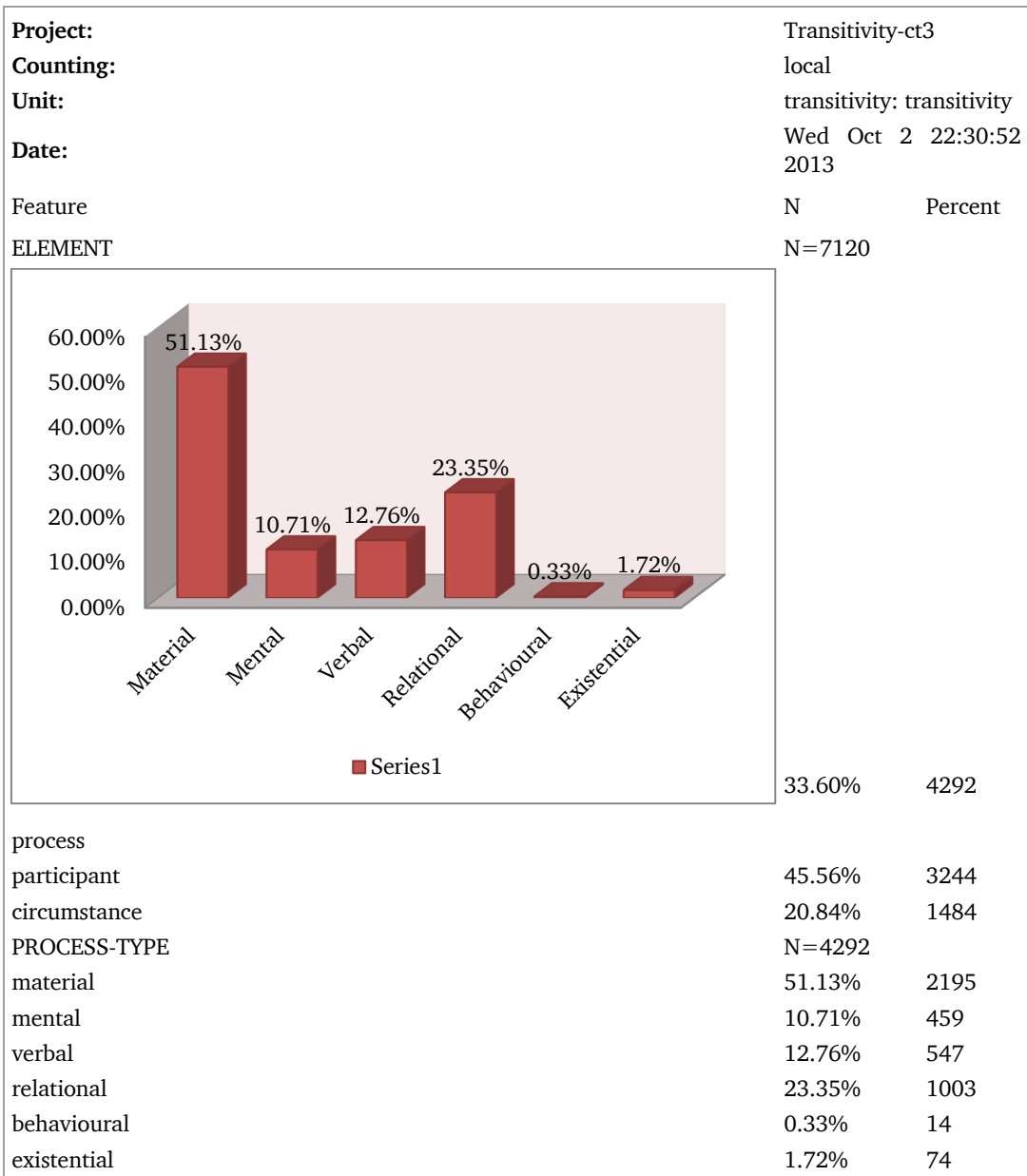
## Process Types: Relative Frequency Profile

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The system of process types is shown in figure 1. The frequency profile to be discussed here relates to the primary process types which include 'Material', 'Mental', 'Verbal', 'Relational', 'Behavioural' and 'Existential'. In the graph below I show the percentage of process types in the data. The figure shows the relative frequency of the process types of quantitative data measuring Pakistani newspaper discourses.

**Graph 1**

has been copied from UAM Corpus Tool Beta-3 generated to explore the Transitivity process type profile in the data.



This is worth to mention that this quantitative frequency profile is not representative of English in Pakistan in general but it is significantly representative of one genre- Pakistani newspaper editorials. Since the data belong to the same genre so it can safely tell the readers the transitivity

features of Pakistani newspaper texts. Also, I can report on the considerable variation in the selection of the different process types as the graph shows variations in the frequency profile of the different process types.

We can see from the graph that a large number of process types is material i.e. 51.13% and the second one with the high percentage is the relational process type. Then follow the verbal and mental process types. Although all the selected texts belong to the same genre but still there is subtle variation in their fields and subject matters. However, we can find out a pattern or a clear tendency in the choice of process types by the journalists. For example, in all the selected texts 'material' process type is the most frequent option and this tendency is usually followed by the 'relational' process types. As Matthiessen (1999) reports that

*“These averages give us a profile of the frequency of instantiation of the systemic options – [...] this is a probability profile. The relative frequencies of different options in PROCESS TYPES vary considerably from one text to another; and if certain (sets of) texts are taken an illustrative of different registers, the variations illustrates the general principle that register show up as skewings in systemic probabilities” (p.14).*

The given graph of figure 1 reveals that by far the most frequent choice of process type is

‘material’ this is at around 52% (*‘the grammar of doing and happening’*, Halliday and Matthiessen, 2014). As in the English clause system this is typically followed by the ‘relational’ process types (*‘the grammar of having and being’*) at around 24% which is then followed by the verbal process types (*‘the grammar of saying’*) at about 13%. Then we have mental process types (*‘the grammar of sensing, wanting, consideration and affection’*) at about 11%. Further, we have some representation of existential process types (*‘the grammar of existing’*) at round 2% and lastly, we have a very negligible percentage of the behavioural process types (*‘the grammar of physiological and psychological behaviors’*) at about less than 1%.

### Circumstantiation: Relative Frequency of Circumstance Types

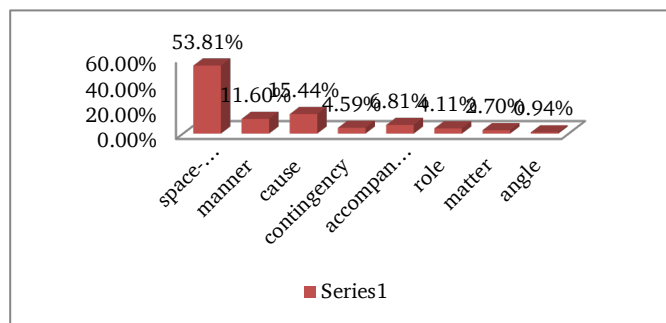
According to Halliday’s Functional Grammar, “circumstantiation is a name which is given to the transitivity of the circumstance types in a clause which indirectly influence the process type in transitivity grammar as they act like the attendant on the process” (Halliday and Matthiessen, 2014: 163).

### Graph 2

has been Copied from UAM Corpus Tool Beta-3 Built Manually to Explore the Circumstantial Element in a Clause

**Project:** Transitivity-ct3  
**Counting:** local  
**Unit:** transitivity: circumstance  
**Date:** Wed Oct 2 22:40:32 2013

CIRCUMSTANCE-TYPE



N=1484

space-and-time	53.81%	798
manner	11.60%	173
cause	15.44%	229

contingency	4.59%	68
accompaniment	6.81%	101
role	4.11%	61
matter	2.70%	40
angle	0.94%	14

“Circumstance types referring to the location, time, space, manner or the cause of the process because they occur at the other end of the continuum” (Ibid). They are characterized to occur freely with all the process types. By default, they are realized by the prepositional as well as adverbial groups. Halliday and Matthiessen (2014, p.193) “describe four major categories of the circumstance types: enhancement, extension, elaboration and projection”.

This is mandatory to elaborate for my readers that in order to develop the quantitative frequency profile of the circumstantial elements in a clause I followed the same way as in the investigation or tagging of the process types. Figure 3 below shows the quantitative profile of the circumstance types.

The relative frequencies of the circumstances have been developed by maintaining parameters of delicacy. Figure 4.6 shows the top-down and figure 4.7 shows the bottom up delicacy in the development of the frequency profile. Not very much surprising the quantitative profile shows that the choices for the circumstance types are not equal in all categories. The most frequent option that appears is ‘space and time type’ at about 54%. This is followed by ‘cause’ at about 16% then the next significant percentage is of ‘manner’ at about 12%. The rest of the option types appear less than 10% in the data (cf. Figure 4.6). This tendency of percentage in the frequency profile of the data significantly accords with the results explored by many researchers in the area of lexicogrammar, for example, see Matthiessen (1999), Hoper and Thompson (1980) and Davidse (1996) to quote a few.

### Graph 3

#### Descriptive Statistics: Circumstantial Features

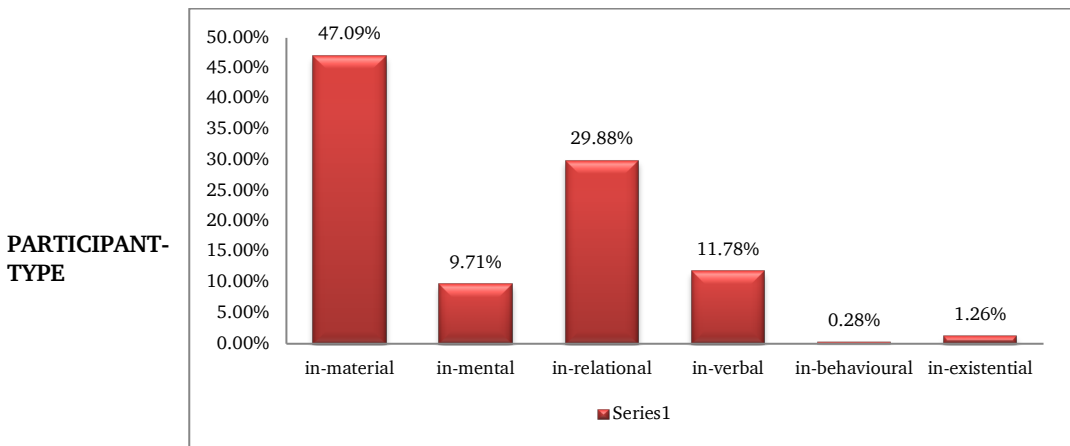
Project:		Transitivity-ct3
Counting:		local
Unit:		transitivity: circumstance
Date:		Wed Oct 2 22:40:32 2013
SPACE-AND-TIME-TYPE		N=797
extent	15.18%	121
location	84.82%	676
SPATIAL-OR-TEMPORAL		N=796
spatial	67.71%	539
temporal	32.29%	257
MANNER-TYPE		N=170
means	34.71%	59
quality	35.29%	60
comparison	7.65%	13
degree	22.35%	38
CAUSE-TYPE		N=229
reason	26.64%	61

purpose	35.81%	82
behalf	37.55%	86
CONTINGENCY-TYPE		N=67
condition	80.60%	54
concession	13.43%	9
default	5.97%	4
ACCOMPANIMENT-TYPE		N=101
comitative	42.57%	43
additive	57.43%	58
ROLE-TYPE		N=61
guise	86.89%	53
product	13.11%	8
ANGLE-TYPE		N=14
source	50.00%	7
viewpoint	50.00%	7

#### Graph 4

Descriptive Statistics: Features

**Project:** Transitivity-ct3  
**Counting:** local  
**Unit:** transitivity:participants  
**Date:** Wed Oct 2 22:33:20 2013



N=3244

in-material	47.09%	1527
in-mental	9.71%	316
in-relational	29.88%	969
in-verbal	11.78%	382

in-behavioral	0.28%	9
in-existential	1.26%	41

Figure 4 has been copied from UAM Corpus Tool Beta-3 generated to explore the most frequent occurrences of the participant choices

### Agency: Relative Frequency of Participant Types

In order to having a clear intersection of nuclear transitivity (Halliday and Matthiessen, 2014) we need to look at the role of agency with the process types. The intersections within the nuclear transitivity are shown in figure 1. Broadly speaking, the major aim of the corpus-based methodology is 'to trace out authentic instances of language in use'. So, whether the corpus is bounded or free it is always located at the cline of instantiation Matthiessen (2006) states that

*"The instance pole is where texts unfold as a pattern of instantiation of the system of language within specific contexts of situation. Patterns that can be identified in a text or sets of texts can be represented as systemic profiles – counts of selections within the systems of a language" (p.104).*

Therefore, if we want to track instances of real language use we need to consider it in relation to all nuclear transitivity elements and the representation of agency is pertinent in this regard. We can also explore the frequency of instantiation in terms of the transitivity system in isolation. So, I have reported the relative frequency profile of the data in connection to all elements of the experiential grammar studies under isolation – reporting on the individual elements in the transitivity system. Figure 4 clearly shows that the most frequent occurrences of the agency relate to the 'material process types'

at about 47%. It is then followed by the 'in relational' process types at about 30%. The further category we see is of 'in verbal' process types at about 12%. The fourth most frequent option is of 'in mental' at about 10%. The following sequence shows the most frequent appearances of the agency in relation to the transitivity process types. "In-material > In-relational>In-verbal>In-mental>In-existential>In-behavioural"

Further, Figure 5 shows that 'actor and goal' are the major choices in material process types. In relational the most frequent choices are 'carrier and attribute', and 'token and value'. Then in-mental type category the major proportion is of 'senser and phenomenon' so on and so forth.

Figure 6 shows that the overall ratio for 'middle' and 'effective' agency is 70% to 31%. This percentage varies across different process types. Same way with the 'material' process types the ratio between 'action' and 'event' is 98% to 2%. Further 'creative' and 'transformative' process types appear in 14% to 86%. As for as the agency portrayal is concerned we need to look at more closely on the ratio of 'effective' and 'middle' agency which as stated earlier remains balanced with the 'material' process types but in relation to the 'relational' clauses it is as 0.9 to 0.1. "These two major process types in the data interestingly occur in accordance to the Hallidayan two-term system" (Halliday, 1991: 13) – 0.5 /0.5 and 09 /01. This ratio is only for two major process types – material and relational clauses rest of the four.

### Graph 5

given below has been copied from UAM Corpus Tool Beta-3 built manually to explore the Participant profile in the data

Project:	Transitivity-ct3	
Counting:	local	
Unit:	transitivity:participants	
Date:	Wed Oct 2 22:33:20 2013	
IN-MATERIAL-TYPE	N=1527	
actor	38.38%	586
goal	42.44%	648



scope	9.76%	149
initiator	0.59%	9
recipient/client	4.52%	69
resulting-attribute	4.32%	66
IN-MENTAL-TYPE		N=316
senser	41.90%	133
phenomenon	56.83%	179
inducer	1.27%	4
IN-RELATIONAL-TYPE		N=968
in-attributive	67.15%	650
in-identifying	32.85%	318
IN-ATTRIBUTIVE-TYPE		N=648
carrier	50.93%	330
attribute	47.38%	307
attributor	0.93%	6
beneficiary	0.77%	5
IN-IDENTIFYING-TYPE		N=318
token	50.63%	161
value	49.06%	156
assigner	0.31%	1
IN-VERBAL-TYPE		N=382
sayer	44.76%	171
verbiage	24.08%	92
receiver	8.90%	34
target	22.25%	85
SAYER-TYPE		N=31
human	77.42%	24
surrogate	19.35%	6
equipment	3.23%	1
IN-BEHAVIOURAL-TYPE		N=9
behave	44.44%	4
behaviour	55.56%	5
range	0.00%	0
IN-EXISTENTIAL-TYPE		N=41
existent	100.00%	41

### Graph 6

*given below has been copied from UAM Corpus Tool Beta-3 to explore Agency in the nuclear Transitivity of a clause system*

Project: Transitivity-ct3  
 Counting: local  
 Unit: transitivity: Agency

Date:	Wed Oct 2 22:48:16 2013	
DOING-TYPE	N=1223	
action	98.45%	1203
event	1.55%	19
ACTION-TYPE	N=1204	
intention	93.85%	1129
supervention	6.15%	75
EFFECTIVE-TYPE	N=1222	
effective	30.28%	370
middle	69.72%	852
OUTCOME	N=225	
creative	14.22%	32
transformative	85.78%	193
MENTAL-TYPE	N=256	
perception	14.45%	37
emotion	15.62%	40
cognition	57.42%	147
desideration	12.50%	32
EMOTION-TYPE	N=40	
like-type	32.50%	13
please-type	67.50%	27
PROJECTION-TYPE	N=557	
with-projection	43.99%	245
no-projection	56.01%	312
NO-PROJECTION-TYPE	N=46	
+ complement	54.35%	25
-complement	45.65%	21
RELATIONAL-TYPE	N=557	
attributive	65.35%	364
identifying	34.65%	193
RELATIONAL-TYPE2	N=552	
intensive	80.43%	444
circumstantial	14.67%	81
possessive	4.89%	27
BEHAVIOURAL-COMPLEMENT	N=08	
+range	75.00%	06
-range	25.00%	02

Theoretically, the data (figure 6) shows that 'material' and 'effective' attract each other very frequently because in an environment where 'middle' and 'effective' options are selected in

relation to the 'material' clauses, approximately 'middle' count about 70% of all instances of the 'effective' clauses. The figure 4 accords more or less with that of Hopper and Thompson's (1980)

characterization of high transitivity profile and of Halliday (1991) too.

### Process Types and Circumstantiation

Having reported my findings on the nuclear transitivity elements – ‘Process, Participants and circumstance types’ (“the major elements of the transitivity system”), the next aspect is to measure the intersection of the two core aspects of the transitivity system- ‘process types and circumstantiation’. For looking into this characterization, I need to explore the intersection of two simultaneous systems operating in transitivity. In doing so I will find out whether they are independent variables or not?

By choosing circumstantiation as an elaborated system in transitivity I can draw an indication that how many variables collectively help in ‘grammar construing our quantum of experience’. Generally, more than one systemic variable is involved in construing our experiences like actions and events in material clauses and other goings-on in relation to remaining process types such as ‘mental, verbal, relational and existential’. From this, I can deduce that “circumstantial meanings are most significant in construing different process types in the grammar of transitivity and we can also differentiate the process types according to their circumstantial tendencies”.

The idea that “studying process types and circumstantiation as the intersection of the both may give us a sense that if we measure circumstantial options for the process types we may get a sense of which circumstance elements are more valuable in construing any process types” (Matthiessen, 1995:23). This way we can also make distinctions between process types as per their circumstantial choices. The criteria that I followed for the description of the ‘circumstantial elements’ from my UAM corpus is that I searched those with particular structural words like at, from, with, about, because etc. This criterion has helped me explore various strings in the data which revealed the general patterns of the usage.

The data has revealed many interesting aspects of the transitivity system. For example, the large number of ‘space and time’ at about 797 defines its qualitative prominence for ‘material’ and ‘verbal’ process types. Same way, peaks of ‘matter’ indicate occurrences with the ‘relational’, ‘verbal’ and ‘mental’ process types. Keeping in view

this tendency we can assume that since ‘material’ clauses add up to 51% of the data so they would combine with the same percentage of ‘spatial or temporal’ options. Similar significant patterns that have emerged have been reported below.

1. For the material process types the general tendency is that they relate to a higher number of circumstantial elements. For example,
  - a. They drove [early this morning].
  - b. She was shot down [at the assassin’s hands].
2. The most frequent circumstantial choices that appear with the material clause include spatial, temporal. These are the most striking options. For example,
  - a. Moves to impose a ban voted [yesterday].
  - b. The opposition walked out [of the parliament building] [before voting].
3. The clauses other than the material ones have a lower tendency to attract those circumstantial elements. In addition, the number of actual circumstantial elements for these also lowers than the material clauses. For example, the tendency is shown below.
  - a. material: place > time > quality > accompaniment > ...
  - b. mental: matter > place, time, quality > degree, comparison > ...
  - c. verbal: time > matter > place > ...
  - d. relational: place > time > quality > ...
4. The circumstantial element which is most wide spread is ‘matter’. Wide spread means it has the tendency to appear with the maximum number of process types. For example,
  - a. The bill for the voting was [about controlling expenditures] on marriages.
  - b. The politicians are making speeches [about changes in the marriage act].
5. There emerged very interesting patterns also that the circumstantial element ‘means’ do not occur frequently with ‘mental’, ‘verbal’, and ‘existential’ and ‘matter’ is not the frequent option with the material process types. However, ‘matter’ is the most frequently opted element for the

- relational, mental and verbal clauses.
- a. She was thinking [about the future of widows and the divorced].
  - b. She was killed back [by the bullet].
6. For the material clauses, it is very much clear from Table 6 that a large percentage at about 98% among the material process types are the action types and almost the same percentage is for the intention types. These dominate the most extensive part of my graph. Broadly speaking, the participants have been portrayed involved in performing physical self-intended actions. I mean to say that those involve a conscious entity in the grammar of transitivity-doing and happening. For example,
- a. The PML (Q) [confronted] a ban on the children bill.
  - b. The militant wings [are spreading] terror and bloodshed.
7. A very interesting pattern emerged from the mental clauses that a fairly large option is of mental-cognition clauses that shows the portrayal of the grammar of the inner world where the entities are obviously involved in the process of knowing and understanding. This is followed by the emotion-type clauses in which again the frequent choice is of please-type at about 68%. Those relate to the external phenomenon of pleasing the entities involved. For example,
- a. They did not [believe] that the move will succeed.
  - b. Its practicality [was considered] by the experts.
8. Now coming to the next pattern that the data have shown, among the relational process types mostly selected process type is relational attributive which are normally mapped onto a complement that assigns an attribute and most of the attribute ascribed as the quality of sensing or the quality of behavioural tendency of emotion. For example, known, serious and worried, blunt, rude and frank etc.
- a. The bill [promises to be] more effective.
  - b. How [less burdened and easy] they [felt] after the success.
9. The UAM exploration with the preposition 'with'- by default it marks a circumstantial element of accompaniment, has shown that accompaniment most frequently occurs in material clauses than in relational clauses. For example,
- a. The law [was enforced] [with full commitment].
  - b. The workers [left] for homes [with hopeless faces].
10. Finally, on the basis of my study, I can say that both process types and circumstantiation are concurrent and act as independent variables. It can be reported more precisely that the various parameters which establish the system of transitivity in a clause are free variables. Refer to Table 7 below for more detail.
- To sum up the discussion, Halliday is widely known and recognised to be one of the pioneers in corpus linguistics (Susan, 2013) for his seminal work on the Chinese Language (Halliday, 1993) in which he describes the system choices. However, Corpus Based Methodology and SFL do not significantly bridge together on the following theoretical assumptions (see Susan, 2013 for fuller detail).
- i. The first issue that emerges is of annotation. While drawing on the large data the analysts are required to mainly rely on the automatic parsing systems but besides so many attempts in generating (semi) automatic parsing system there have been little success (O'Donnell and Bateman, 2005). This is partially because 'SFL is closer to semantics than to form' (ibid, p.11). Therefore, a degree of delicate interpretation is required on the analysts' part. Hence, the present study is a human endeavor with hands-on annotation to calculate the corpus of transitivity profiles in the selected data.
  - ii. The second most important issue is about the unit of calculation in the frequency profile. Both Halliday's and Matthiessen's work builds on the unit of clause (see Halliday, 1991/93; Matthiessen, 2006). In this way counting different clauses tend to be difficult. However, by applying 'per thousand words' criteria in measurement is not problematic (Susan, 2013; O'Donnell,

2008). As illustrated in the Tables above (4.1-4.6) the present research is based on a similar formula.

- iii. The last issue is of phraseology, corpus-based methodologies suggest that the words tend to differently co-occur in certain collocations with each other and this notion looks true in relation to different registers (Susan, 2013). On contrary, my scheme is very much pertinent to the construal analysis which draws on the choices made at the transitivity level in line to the SFL construction of language features.

The present work looks closer to British Standard

English in its findings because it also builds on the register analysis of newspapers and particularly genres such as of news stories and editorials which are well proofread and edited by professional writers before going under publication. The Tables given above (1- 6) show clear patterns in choices made by the Pakistani journalists in portraying the events. These patterns might relate further to the meta-functional system in Pakistani register analysis such as fiction, magazines, textbooks etc. The corpus that I have presented here is a small sample so is provisional in its scope based on manual annotations.

### Graph 7

Examples of different Types of Circumstances in Different Process Types

	Type		Examples	
enhancing	1-	Extent	distance	The bullet pushed her <i>three yards back</i> .
			duration	...that how much tax he has paid in <i>recent years</i> .
			frequency	Supreme court will hold the hearing <i>on daily basis</i> .
	2-	Location	Place	The dead body was found <i>on the ground</i> .
			Time	Benazir was assassinated <i>in the afternoon time</i> .
		3-	Manner	means
	quality			They told them <i>clearly</i> that it could not be done.
	comparison			<i>Like the PPP government</i> PML(N) has increased the prices manifold.
	degree			The bullet pushed her <i>very hard</i> .
	4-	Cause	reason	<i>Because of the current terrorism wave</i> PTI has taken strict measures.
purpose			The amendments were made <i>for having fair elections</i> .	
behalf			A committee will have a dialogue with Taliban <i>on behalf of the govt</i> .	
5-			Contingency	condition
	default	<i>In the absence of Awami League</i> , the APC seems not working wise.		
	concession	<i>In spite of heavy rains</i> we were unable to produce thermal power.		
extending	6-	Accompaniment	comitative	Today, PM has left for the US <i>with a huge host of members including</i>

				journalists.
			additive	The award show offered a lot of live music as well as a variety of dance.
elaborating	7-	Role	Guise	The wild aggression of her turned to be mild as an inoffensive trait.
			product	The body was transformed into smoke which vanished into the air.
projecting	8-	Matter	-----	The agenda of the meeting is about countering terrorism.
	9-	Angle	source	According to reliable sources, President Obama has positive gestures to stop drone attacks.
			viewpoint	In my point of view, Pakistan should strike hard to counter lawlessness.

### Experiential System and the Discursive Perspective

The transitivity system of the grammar of the Pakistani newspaper English particularly of editorials organizes a clause in terms of two major systems that operate within the “transitivity: nuclear transitivity and the experiential transitivity”. Broadly speaking, the nuclear system comprises process types and agency but on the other hand circumstantiation includes circumstantial elements-see Sections 4.1 and 4.2. Further, the process types system related to Pakistani English exhibits four major choices: material, mental, verbal, and relational process types. Though existential process types appear in some considerable percentage but my corpus shows a negligible occurrence of behavioural ones- for a fuller detail of the transitivity choices see Figure:1.

As reported in the previous sections, participants and circumstances are differentiated in the Pakistani lexico-grammatical study by grammatical markers. However, the participant types markers are very general which do not show their roles more specifically in the entire transitivity system but their specific roles can be best interpreted in relation to the process type choices. The major four process types seem to have been deployed by journalists to do explicit discursive work in the journalistic discourse. For example, ‘material process types’ have been chosen to create an event line in the editorials with the peculiarity of creating opinion making procedural discourses. By default, the material clauses are the

clauses of ‘doing and happening’, and actions, events, activities and performances where an input energy is required in order to initiate the unfolding of the material experiences involved, and characteristically, the same process type unfolds for a comparatively short period of time and their domain is concrete but they also serve to construe abstract realizations in the clause. For example:

1. “*She died at the hands of an assassin, a suicide bomber, God knows at whose behest*” [Dawn Dec 28, 2007].
2. “A retrial, especially at a time when executive-judicial ties are under great strain, will merely add to the wounds of a nation already traumatized by terror” [Dawn Jan, 05 2011].
3. “The Supreme Court is standing firmly between the law and a government bent on breaking it” [The News Jan 05, 2007].
4. “In the process, one helicopter crashed for technical reasons and was blown up by the Americans to destroy evidence” [Dawn May 03, 2011].

From the perspective of experiential meanings, examples 1, 2 and 6 show ‘supervention and middle vs. effective’ type actions where one entity had been dragged into a situation without showing the agent. This strategy creates an impact of assassination and this has been impacted by the choice of an agentless process type. In addition, clause no.6 is ergative in its semantic paradigm which is very interesting because this choice signifies that it was not the enemy who had made

the helicopter crash which would have reflected a different ideology. Examples 3 and 4, show abstract entities represented through a nominal group. Though, those are nominal groups but still work as the agents who make the processes happen.

On the hand, relational clauses have been employed to specify opinions and procedural conditions and outcomes in journalistic discourses. For example,

5. *“The court would have none of his politics, but the fallout of the SC’s rejection of the review appeal is nothing if not political”* [Dawn June 20, 2012].
6. *“The tone, tenor and terminology of the speech demonstrates the ugly face of politics in this country: the dismal state of political maturity and absence of all moral barometers”* [The News June 20, 2012].
7. *“She is a target for conservative ire and a heroine to some Pakistani liberals”* [Dawn Dec 28, 2007].

Lexico-grammatically, relational clauses relate one entity with another one. More generally, attributing an entity to its general class, possession, quality or circumstance or identifying anything with its particular characteristics. This semantic generality and definiteness is exemplified in the choice of both ‘attributing and identifying relational clauses’. From the examples discussed above it is clear that generally a relational clause in Pakistani journalistic discourse signifies a process or relation between entities.

Further, with the help of mental clauses which are the clauses of seeing, thinking, feeling and wanting journalists were able to construe their viewpoints and reactions in The News editorials. Matthiessen (1999: 29) states that *“in mental clauses the process of sensing is inert compared to the material clauses. As for the discursive notion of such process types is concerned they are realized at the conscious level while in material clauses actor is limited to potency or the animacy”*.

8. *“Her supporters knew very well she was the target and yet thronged each venue she appeared at”* [Dawn Dec 28, 2007].
9. *“It was not unexpected that the PPP and its allied parties would defy and totally disregard the verdict”* [Dawn June 20, 2012].

10. *“The world saw her with awe as a celebrity with an aura of mystery and tragedy surrounding her and the curse of the unknown which follows the Bhutto family always kept haunting her”* [The News Dec 28, 2007].

Finally, verbal clauses helped them to vocalize and project their inner feels to the outer world which construed the experiences of their voices. For example, these process types help to reflect the mood on the discursive perspective – ‘command, request, statement or the question’. On the basis of my preliminary findings I can say that the choices of the process types construct very general features in construing a particular world view of the field. For example, on the cline of dynamism (Hasan 1985/89 cited in Thompson 2008) we see that the ‘senser’ of a mental clause is more dynamic than the ‘actor’ in the material clause construction.

11. *“The government says the cases that have been mentioned in the NRO were politically motivated and amount to victimization”* [The News March 17, 2009].
12. *“The power they are enjoying is a gift of the PPP which can send them home anytime, but for the politics of reconciliation of BB Shaheed,” ‘the president gloated’* [The News April 07, 2012].
13. *“The chief justice should allow parliament an opportunity to resolve the constitutional imbroglio and to right the balance of power among state institutions”* [Dawn April 08, 2012].

From the above discussion it has been deduced that the choice of the process types in my small corpus of Pakistani journalistic texts remarkably show the ideological use of language - for a fuller detail see the sections to follow. For instance, material clauses are significant in event oriented reports while relational are important to object-oriented clauses and on the other hand, mental clause construction help in construing viewpoints and verbal clauses portray the view-points. The relative frequencies of the process types have not only shown the construal of the experiential world but also it has revealed their discursive significance and their impact in the journalistic discourse. With a focus on the construction of power we are more interested in exploring the kind of world-view that the journalists construe through the selection of transitivity process types.

Therefore, from the example above I have reported that the world-view in the field of editorials has been construed by representing process types in relation to the given entities. And

the overall impact of the field has been created by choosing participant entities engaged in an experiential system of the clause.



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