**A Systemic Functional sketch of TRANSITIVITY in Sundanese: a focus on material clauses**

**Abstract:**

This paper explores the experiential grammar of Sundanese from the perspective of Systemic Functional Linguistics (SFL). It focuses in particular on options in TRANSITIVITY and their role in organising discourse. The description takes a fable as its point of departure in order to capture how general lexicogrammatical features in Sundanese contribute to the realisation of discourse semantic, register, and genre patterns. Following a broad overview of TRANSITIVITY options, this paper maps out the grammar of material clauses in more detail with respect to both their structural configurations and systemic options in a way that can engage with larger text patterns. Amongst other things, this paper explores the grammar of voice, which involves affixation and nasalisation in relation to larger clausal patterns, as well as a wide range of options for benefactive clauses. As such, this paper takes a first step towards a discourse-oriented description of Sundanese from the perspective of SFL so as to contribute to both the growing field of SFL language description and typology, and the expanding interest in SFL educational programs in Sundanese speaking areas.

**Keywords:**

Sundanese, Systemic Functional Linguistics, TRANSITIVITY, register, genre

## 1. Introduction

Systemic Functional Linguistics (SFL) is widely known for its applied research concerns across fields such as educational linguistics, clinical linguistics and critical discourse analysis. Applications in this tradition often take as their point of departure the rich SFL descriptions of English developed across lexicogrammar (Halliday and Matthiessen 2014), phonology (Halliday and Greaves 2008), discourse semantics (Martin 1992; Halliday and Matthiessen 1999; Martin and White 2005), and register and genre (Martin and Rose 2008), as well as the seminal description of images by Kress and van Leeuwen (2006). As the scope of SFL applied research has expanded across the world, there has been an increasing focus on the need for SFL descriptions of languages other than English. These descriptions are needed to ensure that applied programs in any particular language have a firm basis in the specific functionality of that language, rather than being developed using English categories. For this reason, there has been an acceleration in SFL descriptive work in recent years, with both a wider range of languages and language families explored, and a wider range of linguistic phenomena investigated (see Mwinlaaru and Xuan 2016 for a survey of this work, as well as Caffarel et al. 2004, Martin and Doran 2015, Martin 2018, Martin et al. 2019, 2020a, b).

This paper contributes to the expansion of SFL language description by focusing on the experiential grammar of Sundanese, a Malayo-Polynesian language from the Austronesian family spoken in West Java, Indonesia. It explores the options available within the system of TRANSITIVITY, focusing in particular on material clauses that notionally construe action and events. It first positions material clauses within the system of TRANSITIVITY by giving a broad overview of how they relate to mental and relational clauses. This broad mapping is then used to illustrate how this region of Sundanese grammar organises text patterns by looking "from above" in terms of how TRANSITIVITY options realise discourse semantic, register and genre patterns. Following this contextualisation in terms of other clause types and broader text patterns, the paper then focuses in more detail on the grammar of material clauses. It does this by considering the systemic options available to Sundanese speakers and the structural confiugrations used to realise them. By focusing in detail on material clauses and illustrating how they relate to other areas of the grammar and to discourse, this paper takes a step toward a detailed description of Sundanese experiential lexicogrammar that can link with nuanced patterns of text.

Sundanese is a major language of Indonesia with around 32 million speakers (Eberhard et al. 2019) – centring on Priangan in West Java (Bandung, Bogor, Garut, Tasikmalaya, and Ciamis) and ranging from Banten in the far west, Cirebon in the north and to several areas to the east near the border of West Java and Central Java. In recent years, SFL influenced genre-pedagogy (Rose and Martin 2012) has taken root in Indonesia, with a key focus being teaching and learning in highly multilingual environments involving Indonesian and regional languages such as Sundanese, Javanese and Madurese (Kartika-Ningsih 2016, 2020; Emilia, 2005, 2010; Emilia & Hamied, 2015; Widyastuti & Kartika-Ningsih 2013; Bangga & Zulferdi 2019). This type of pedagogy depends on rich "text-based" descriptions of the language being taught, so that teachers and students can effectively engage with the highly valued reading and writing of the classroom and assessment. This involves detailing the lexicogrammatical, graphological and

phonological patterns of language, and exploring how they integrate with broader discourse-semantic patterns across registers and genres.[1]

For Sundanese, brief sketch grammars from other traditions have been provided by Müller-Gotama (2001) (which we might characterise in Dixon's "Basic Linguistic Theory" terms) and Hardjadibrata (1985) (drawing on Tagmemics) – which have built upon the rich phonological and morphological work of Robins (1953a, 1953b, 1959, 1965, 1968) who worked within the framework of Firth's London school. These descriptions have provided an account of the formal features of the grammar; however, they give little insight into how these grammatical patterns integrate with discourse patterns (Müller-Gotama 1994 being a rare exception). This paper builds upon these descriptions to offer a Systemic Functional perspective that comes at the grammar in a way that explicitly links with text. It foregrounds the axial outlook of SFL (Matthiessen et al. 2018; Martin 2013), combining as it does the paradigmatic options available in a language with their structural configurations.

As a way into the description, we will focus on Text 1, a story taken from a well-known Sundanese-language magazine published in West Java called *Mangle*. From the perspective of genre, this text is a narrative in which the protagonist resolves an unexpected event (Martin and Rose 2008). In traditional terms, it is a fable told through the actions of personified animals and used to develop an explicitly moral message.[2] In terms of its staging, the narrative begins with an Orientation that sets up the main characters, the lion (*singa*) and the mouse (*beurit*), and the initial events of the mouse being caught by the lion after boldly attempting to get close to it. These events prefigure the main Complication involving a series of worsening problems where the lion gets caught in a snare and tries to get out by thrashing around, but manages only to make the snare tighten around him. This succession of compounding problems is eventually resolved in the Resolution when the mouse gnaws through the snare to release the lion. Finally the story is interpreted in explicitly moral terms as a concluding Coda. The genre and staging analysis of Orientation ^ Complication ^ Resolution ^ Coda shown in bold is complemented by a phase analysis shown in italics, giving smaller text patterns within stages and specifying the setting, the problems and solutions, and the reactions, reflections and comments that constitute the story (following Rose 2020, Martin and Rose 2008). These phases will form the main entry-point to the different areas of the grammar shown below. Each phase is given in Sundanese with an English translation which highlights certain key features of the experiential lexicogrammar (meaning at times that the textual meaning in English may seem a little stilted). A full morpheme-by-morpheme glossing is given in the Appendix.

**Orientation**

| | |
|---|---|
| setting | Aya beurit nu wani-wani naék ka gigir singa nu keur saré. |
| | *There was a mouse who was brave enough to climb beside a sleeping lion.* |
| | |
| problem | Singa kagét, tuluy nyaring sarta beurit téh dicapluk. |
| | *The lion was startled, then awoke and the mouse was pounced upon.* |

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[1] The model of SFL used in this paper is that of Martin and Rose (2008), involving two strata of context: register and genre.

[2] A tentative alternative SFL analysis for fables is offered by Martin (2016), who suggests they could be distinguished from narratives. As we are not focusing on genre per se here, but rather using it as a way into the phases of the text and then the grammar, we will not explore this alternative analysis.

| | |
|---|---|
| reaction | Beurit sasambat, "Duh juragan, mugi juragan ngahapunten abdi. Abdi terang juragan téh gagah sarta gedé wawanén. Upami badé maéhan abdi, nu apes siga ayeuna, geus tangtu kirang saé kanggo kakongasan juragan. Bakal nurunkeun darajat juragan." <br> *The mouse begged "Oh Sir, I hope you forgive me. I know you are extremely strong and hugely courageous. If you were to kill me, who is as weak as I am now, it would certainly be little good for your reputation. It will lower your standing."* |
| solution | Beurit téh dihampura sarta tuluy dilésotkeun. <br> *The mouse was forgiven and then released.* |
| reflection | Pok singa nyarita, "Ku aing dikencarkeun sotéh bakat ku karunya baé. Aing henteu ngarep-ngarep kana pamales manéh." <br> *The lion said "By me you were released because of pity only. I do not wish for your repayment."* |

**Complication**

| | |
|---|---|
| problem | Teu kungsi lila, Singa keuna ku jiret. <br> *Not long after, the lion was caught in a snare.* |
| reaction | Ambek bari adug-adugan hayang leupas tina jiret, nepi ka béak tanagana. <br> *He was furious, as he thrashed wanting to escape from the snare, until his energy expired.* |
| problem | Batan lésot mah, éta jiret kalah ka beuki meulit. <br> *Rather than loosening, the snare only twisted more.* |
| reaction | Gagauran matak sieun, nepi ka sato-sato séjén kalabur kataweuran. <br> *The lion roared and roared, causing fear, until the other animals ran in chaos.* |

**Resolution**

| | |
|---|---|
| solution | Ngan beurit téa anu teu sieuneun téh, malah nulungan. Gancang nyampeurkeun. Jiret téh diségétan, nepi ka singa téh bisa kaluar jeung ngencar deui. <br> *However, the mouse was the one who was not a coward, he even helped. He quickly approached. The snare was gnawed at until the lion could escape and roam free once more.* |
| reflection | Singa ngarumasakeun, lamun teu ditulungan ku beurit tangtu manéhna bakal paéh, sarta rumasa omonganana ka beurit téh salah. |

*The lion realised, if he had not been helped by the mouse he certainly would have died, and he realised his words to the mouse were wrong.*

**Coda**

comment      Hartina ieu dongéng: Nyieun kahadéan jeung nyaah ka sasama téh tangtu aya ganjaranana, sanajan ka nu leutik. Ari sababna henteu mustahil jalma leutik nulung pisan ka nu gedé.
*The meaning of this tale: doing good deeds and loving others are certainly their own reward, even to those who are small. The reason is that it is not impossible for small people to really help those who are great.*

Text 1. Singa jeung beurit (The lion and the mouse)

Stages of genres and the phases that realise them are based upon recurrent patterns of language that occur across all strata and metafunctions. This provides a point of departure for language description. In this paper we are going to focus on two main variables. The first is shifts in field, a component of register tending to be realised through ideational meanings (following the model presented in Doran and Martin 2020). The second is shifts in discourse semantics, specifically IDEATION (following Hao 2015, 2020a) and APPRAISAL (Martin and White 2005). Each of these resources of language will be introduced as they become relevant. The significance of these variables is that their shifts through the text are realised in part through distinct TRANSITIVITY patterns. By coming at the grammar from this "top-down" perspective we are able to contextualise these grammatical patterns in terms of the role they play in the text (Hao 2020b, Martin and Quiroz 2020). This enables a keener grasp of the functionality of lexicogrammar in discourse, which is vital for applied linguistic programs.[3]

As a starting point, we can draw on Hao's recognition of three broad discourse semantic options for construing experience (Hao 2020a, building upon Halliday and Matthiessen 1999). These choices involve construing states of being, known as *state figures*, unfolding events, known as *occurrence figures*, and the positions and perspectives from which these states and occurrences occur, known as *positioned figures*. (1)-(3) exemplify each of these in Sundanese.

state figure:

(1)      *omong-an-ana*    *ka*   *beurit*   *téh*      *salah*
        speak-NMLZ-3    to   mouse   TOP      wrong
        'his words to the mouse were wrong'

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[3] Although we are coming at the grammar from a top-down perspective, we should clarify that the text and the ways TRANSITIVITY choices organsie it are used for illustrative purposes only. We are not putting forward a comprehensive description of text patterns nor a detailed mapping of lexicogrammatical choices with discourse semantic, register and genre choices. Rather, we are simply illustrating how Sundanese grammatical description can work to illuminate our understanding of Sundanese text. In this sense, the text is a *way in* to the description, rather than the main of object of study. As appliable linguistic programs develop in Sundanese contexts, more comprehensive and robust mappings of grammar to discourse will be needed.

occurrence figure:

(2)  *singa téh*     *bisa kaluar*
     lion  TOP     MOD escape
     'the lion could escape'


positioned figure:

(3)  *Abdi*     *terang*     (*juragan*   *teh*     *gagah*)
     1SG        know         (Sir         TOP       strong)
     'I know                 (you are strong)'


These figure types technicalise Halliday's notion that, experientially speaking, clause options broadly construe 'being', 'doing' and 'sensing' (1985). In Sundanese as in other languages, these three figure types are canonically realised by distinct clause types in TRANSITIVITY: relational clauses, material clauses and mental clauses. However these clauses are distinguished not just in terms of the discourse semantic meanings they realise, but also their systemic options and strucural configurations within lexicogrammar. In the following sections, we will see this by first overviewing relational and mental clauses in Sundanese from a top-down perspective. This will build the grammatical environment needed for the more detailed description of material clauses in the next section. Throughout this paper, the grammar will be contextualised in terms of how they organise the text patterns in Text 1, so as to illustrate how Sundanese grammar organises discourse.


## 2. Relational clauses in Sundanese


One of the key features of story genres are the evaluations of events and characters they present (Martin and Rose 2008). In terms of SFL discourse semantics, this implicates the system of ATTITUDE within APPRAISAL, which is responsible for organising our feelings, judgements and appreciations of events, people and things. Ideationally, this regularly occurs in Text 1 through state figures realised grammatically by relational clauses. These clauses often establish relations between participants and their attributes as shown in examples (4) to (6). The syntagms of each of these clauses sequence a nominal group followed by an adjectival group. In terms of the function structure, we will say the nominal groups in these clauses realise a Carrier function and the adjectival groups in these clauses realise an Attribute function.[4]


(4)  *omong-an-ana*   *ka* *beurit*  *téh*       *salah*
     speak-NMLZ-3    to  mouse     TOP        wrong
     Carrier                                  Attribute

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[4] The glossing of examples follows the Systemic Functional Glossing Conventions developed by the international Systemic Language Modelling Network, found here: https://systemiclanguagemodelling.com/glossing/, using a clause translation and often a group-by-group translation. This is complemented by a morpheme-by-morpheme glossing that conforms to the Leipzig glossing rules: https://www.eva.mpg.de/lingua/pdf/Glossing-Rules.pdf.

|  |  |
|---|---|
| nominal group | adjectival group |
| *his words to the mouse* | *wrong* |

'his words to the mouse were wrong'

(5)

| *juragan* | *téh* | *gagah* | *sarta* | *gedé* | *wawanén* |
|---|---|---|---|---|---|
| Sir | TOP | extremely.strong | and | huge | courage |
| Carrier |  | Attribute |  |  |  |
| nominal group |  | adjectival group |  |  |  |
| *Sir* |  | *extremely strong and hugely courageous* |  |  |  |

'you are extremely strong and hugely courageous'

(6)

| *Singa* | *kagét* |
|---|---|
| lion | startled[5] |
| Carrier | Attribute |
| nominal group | adjectival group |
| *lion* | *startled* |

'The lion was startled'

By virtue of having two participants, clauses (4) to (6), which we shall call *associative* relational clauses, are distinguished from the opening clause of the story, shown in (7), which has only one.

(7)

| *Aya* | *beurit* | *nu* | *wani-wani* | *naék ka gigir* | *singa* | *nu keur saré* |
|---|---|---|---|---|---|---|
| EXIST | mouse | REL | RED-brave | climb to side | lion | REL PROG sleep |
| Process | Existent |  |  |  |  |  |
| verbal group | nominal group |  |  |  |  |  |
| *there.is* | *a mouse who was brave enough to climb beside a lion who was sleeping* |  |  |  |  |  |

'There was a mouse who brave enough to climb beside a sleeping lion'

This clause, which we will call an *existential* clause, introduces the main participant of the story, the mouse. Existential clauses are typically marked by the existential *aya* or the negative existentials *lain* or *taya*, as in (8).

(8)

| *Taya* | *jelema* |
|---|---|
| Process | Existent |
| verbal group | nominal group |
| *there.is.not* | *people* |

'There are no people'

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[5] Here, *kagét*, 'startled' does not describe an action of being startled, but rather that state of being startled (i.e. it is an adjective in an adjectival group realising an Attribute, rather than being a verb in a verbal group realising a Process).

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Whereas existential clauses include only one participant – the Existent – associative clauses include two. In addition, as (4)-(6) show, unlike existential clauses, associative clauses do not require a Process and indeed regularly do not use one (as is the case for many languages, e.g. Tagalog, Martin 1996, 2004; Pitjatjantjara, Rose 2001). When Processes are used, this often involves an auxiliary verb that indicates aspect, polarity or modality as in (9).

(9)     *Beurit*        *geus*          *dekeut*    *teuing*
         mouse         PERF          close     very
         Carrier        Process       Attribute
         nom. group   verbal group   adj. group
                    Aspect
         *the mouse*    *had.been*      *very close*
         'The mouse had been very close'

Less commonly, the Process may be realised by a copular such as *nyaeta* or *aya* as in clause (10), taken from a news report.

(10)    *Taun*    *2014*      *nyaeta*            *taun*     *politik*
         year     2014       is                year     politics
         Token           Process         Value
         nominal group   verbal group    nominal group
                        Event
         *Year 2014*       *is*                *year of politics*
         'Year 2014 is the year of politics'

(9) and (10) indicate a further distinction in two types of associative clause. Those with a Carrier•Attribute structure are termed attributive clauses, while those with Token•Value structures are termed identifying clauses. Grammatically speaking, attributive clauses tend not to include Processes, and if they do, they generally only involve auxiliary verbs. In addition, the sequence of Carrier and Attribute is relatively strict; one cannot reverse (9) above to say *\*dekeut teuing geus beurit* (\*'very close had been the mouse'). In contrast, identifying clauses more commonly include Processes with a copula such as *nyaeta* (though they by no means do this always; see (13) below), and have a more flexible sequence between its participants (i.e. both *taun 2014 nyaeta taun politik* and *taun politik nyaeta taun 2014* are acceptable).

From the perspective of the register-variable field, concerned informally with the 'content' meanings of the text, each type of relational clause tends to realise static relations involving what Doran and Martin (2020) call 'items' – people, entities, elements or more broadly 'things' in text (as opposed to *activities*, which are concerned with events). Attributive clauses often ascribe some gradable property to an item (such as *dekeut teuing* "very close" to *beurit* "the mouse" in (9) above), position it in a location ((11) below) or relate two items in terms of classification ((12) below). This means attributive clauses tend to have more variability about what realises the

Attribute: an adjectival group as in (4) to (6) and (9), a prepositional phrase as in (11) or a nominal group as in (12).

(11)  *Abdi*          *di*     *kelas XII*     *SMKN 15 Bandung*
      1SG            in       class 12        SMKN 15 Bandung
      Carrier                 Attribute
      nominal group           prepositional phrase
      *I*                     *in class 12 SMKN 15 Bandung*
      'I am in year 12 at SMKN 15 Bandung'

(12)  *Manehna*        *prajurit*
      3SG              soldier
      Carrier          Attribute
      nominal group    nominal group
      *He*             *soldier*
      'He is a soldier'

In contrast, identifying clauses tend to equate two items and so both the Token and Value tend to be realised by nominal groups as in (10) above and (13).[6]

(13)  *Nami lengkep-na*      *Sarah Oktaviani*
      name full-3           Sarah Oktaviani
      Token                 Value
      nominal group         nominal group
      *Her full name*       *Sarah Oktaviani*
      'Her full name is Sarah Oktaviani'

Figure 1 maps these options into a system network. This network indicates that relational clauses necesarilly have a Participant (as we will see below, this contrasts with material clauses). The square bracket [ indicates there are two types of relational clause, existential and associative. Existential clauses have a Process as well as a single Participant called the Existent, whereas associative clauses have a second participant. Within associative clauses, the brace { indicates two sets of options, whether the clause is attibutive or identifying, and whether it has a Process or not. If it is attributive, the Participants are a Carrier and Attribute, if it is identifying, they are a Token and Value.

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[6] As this section is only aiming to give a broad overview of relational clauses in Sundanese, more detailed reasoning regarding the distinction between Token and Value will not be pursued here.
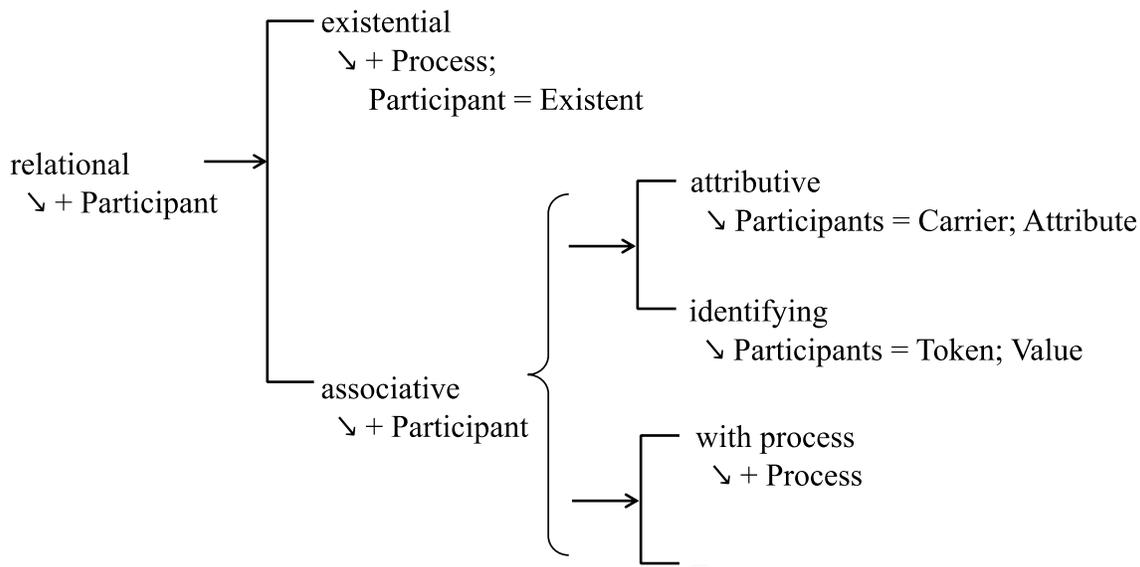
Figure 1. Network of relational clauses

As noted above, in story genres such as our Text 1, attributive and identifying clauses tend to primarily be oriented towards evaluation. Indeed, attributives in particular form key resources for realising shifts in attitude in the problem, reaction and reflection phases that occur throughout, as shown by the underlined clauses in the first problem-reaction sequence:

*problem*        Singa kagét tuluy nyaring sarta beurit téh dicapluk.

                 *The lion was startled and awoke, and the mouse was pounced upon.*

*reaction*       Beurit sasambat, "Duh juragan, mugi juragan ngahapunten abdi. Abdi terang juragan téh gagah sarta gedé wawanén. Upami badé maéhan abdi, nu apes siga ayeuna, geus tangtu kirang saé kanggo kakongasan juragan. Bakal nurunkeun darajat juragan."

                 *The mouse begged "Oh Sir, I hope you forgive me. I know you are extremely strong and hugely courageous. If you were to kill me, who is as weak as I am now, it would certainly be little good for your reputation. It will lower your standing."*

Identifying clauses are also used for evaluative purposes, however in a subtlety different way. In each of the three instances in this text, they are used to equate a participant with a longer embedded clause that involves attitude (space precludes a fuller discussion or justification of

10

embedding here). This first occurs at the beginning of the solution phase in the Resolution, marking a key counterexpectant shift in the text from the lion being stuck to the mouse being the saviour (embedding shown by double square brackets [[..]]):

(14)

| *Ngan* | *beurit téa* | *anu* [[*teu sieun-eun téh* ]] |
|---|---|---|
| however | mouse TOP | REL [[NEG afraid-NMLZ TOP]] |
| | Token | Value |
| *however* | *the mouse* | *who was not a coward* |

'However, the mouse was the one who was not a coward'

Here, the clause identifies *the mouse* as *the one who was not a coward*. Through this identifying construction, the two participants are separated in a way that allows them to be marked by two textual markers *téa* and *teh*. In particular, the mouse (*beurit*) is marked with the contrastive theme marker *téa*, which emphasises the unexpected nature of the mouse being the one who is not a coward.[7]

The final two identifying clauses occur in the Coda stage, which synthesises the moral of the story:

(15)

| [[*Nyieun ka-hadé-an* ]] | *jeung* | [[*nyaah ka sasama*]] *téh* | *tangtu* | *aya* | *ganjar-an-ana* |
|---|---|---|---|---|---|
| [[make NM..-good-..LZ]] | and | [[love to others ]] TOP | certain | is | reward-NMLZ-3 |
| Token | | | | Process | Value |
| *Making goodness and loving others* | | | *certainly* | *is* | *their reward* |

'doing good deeds and loving others are certainly their own reward'

(16)

| *Ari* | *sabab-na* | [[*henteu* | *mustahil* | *jalma leutik* | *nulung* | *pisan* | *ka nu* [[*gedé*]] ]] |
|---|---|---|---|---|---|---|---|
| EMPH | motive-3 | NEG | impossible | person small | ACT/help | very | to REL great |
| | Token | Value | | | | | |
| | *the reason* | *not impossible for a small person to really help those who are great* | | | | | |

'The reason is that it is not impossible for small people to really help those who are great.'

In each of these instances, the identifying clauses enables a significant item (*beurit*, the mouse; *sababna*, the reason) or activity (*Nyieun kahadéan jeung nyaah ka sasama*, doing good deeds and loving others) for that phase of the text to be given both textual prominence and evaluated in a relatively nuanced way. Both attributive and identifying clauses are therefore key resources for configuring the attitude key to story genres such as Text 1. However, as we will see below, relational clauses are by no means the only clause type used to organise evaluations through the text.

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[7] Space precludes a full discussion of the textual markers *téa, teh* and *mah* here, however it is important to note that these textual markers only occur as the final element of participants, primarily nominal groups, and cannot occur at the end of adjectival groups. This means they are key reactances for testing the boundaries of a nominal group and for participants that can be tracked in following text. In this instance, this gives one justification for analysing it as a clause, rather than as a nominal group; the use of *téa* after *beurit* indicates it is a nominal group of its own.

## 3. Mental clauses in Sundanese

In Text 1, many of the evaluations construed through relational clauses are in fact projected as speech or thought by either the mouse or the lion. Indeed, this is the case for our first two examples above (reproduced here as (17) and (18)).

(17)

| *Abdi* | *terang* | *juragan* | *teh* | *gagah* |
|--------|----------|-----------|-------|---------|
| 1SG | know | Sir | TOP | strong |
| clause | | clause | | |
| Senser | Process | Carrier | | Attribute |
| *I know* | | *you are strong* | | |

'I know you are strong'

(18)

| *(Singa)*[8] | *r<um>asa* | *omong-an-ana* | *ka* | *beurit* | *téh* | *salah* |
|--------------|------------|----------------|------|----------|-------|---------|
| (Lion) | <DER>feel | speak-NMLZ-3 | to | mouse | TOP | wrong |
| clause | | clause | | | | |
| Senser | Process | Carrier | | | | Attribute |
| *the lion realised* | | *his words to the mouse were wrong* | | | | |

'the lion realised his words to the mouse were wrong'

These projecting examples illustrate a second major area of clause TRANSITIVITY in Sundanese, mental clauses. From the perspective of ideational discourse semantics, the above mental clauses realise positioned figures (Hao 2020a), which indicate a source or perspective on the evaluations being given. Interpersonally speaking, they realise heteroglossic engagement, acknowledging a particular voice in the text (Martin and White 2005). Unlike associative relational clauses, mental clauses necessarily include a Process. These processes are typically verbal groups expressing thought or speech (we will not distinguish mental and verbal clauses here), with the Senser (that doing the thinking or speaking) typically realising a conscious person entity or semiotic entity.

As the examples above show, one regular feature that distinguishes mental clauses from other types of clause is the possibility of projecting a clause. The relation of the projecting to the projected clause can be explicitly marked by a linker *yén*, as in (17').

(17')

| *Abdi* | *terang* | *yén* | *juragan* | *teh* | *gagah* |
|--------|----------|-------|-----------|-------|---------|
| 1SG | know | LK | Sir | TOP | strong |
| clause | | | clause | | |

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[8] Here *singa*, functioning as Theme, is in fact elided. This is typical in Sundanese once a Theme has been established, as it has been in this case.

| Senser | Process | | | Carrier | Attribute |
|---|---|---|---|---|---|
| *I know* | | *that* | | *you are strong* | |

'I know that you are strong'

Although projection is a relatively common feature of mental clauses, not all mental clauses do in fact project. The following clause for example contains a participant known as a Phenomenon realised by a prepositional phrase. In this instance, the Process realises desire.

| (19) | *Aing* | *henteu* | *ngarep-ngarep* | *kana* | *pa-melas* | *manéh* |
|---|---|---|---|---|---|---|
| | 1SG | NEG | ACT/wish-ACT/wish | for | DER-response | 2SG |
| | Senser | Process | | Phenomena | | |
| | nominal group | verbal group | | prepositional phrase | | |
| | *I* | *not wish* | | *for your repayment* | | |

'I do not wish for your repayment'

We will not be pursuing any further delicacy or reasoning to do with mental clauses here. However we can pull this description together with that of relational clauses as in Figure 2. This network indicates that mental clauses necesarilly have a Process, as well as a Senser and an optional Phenomenon, whereas relational clauses only optionally have a Process and may have quite varied configurations of Participants, depending on the subtype.
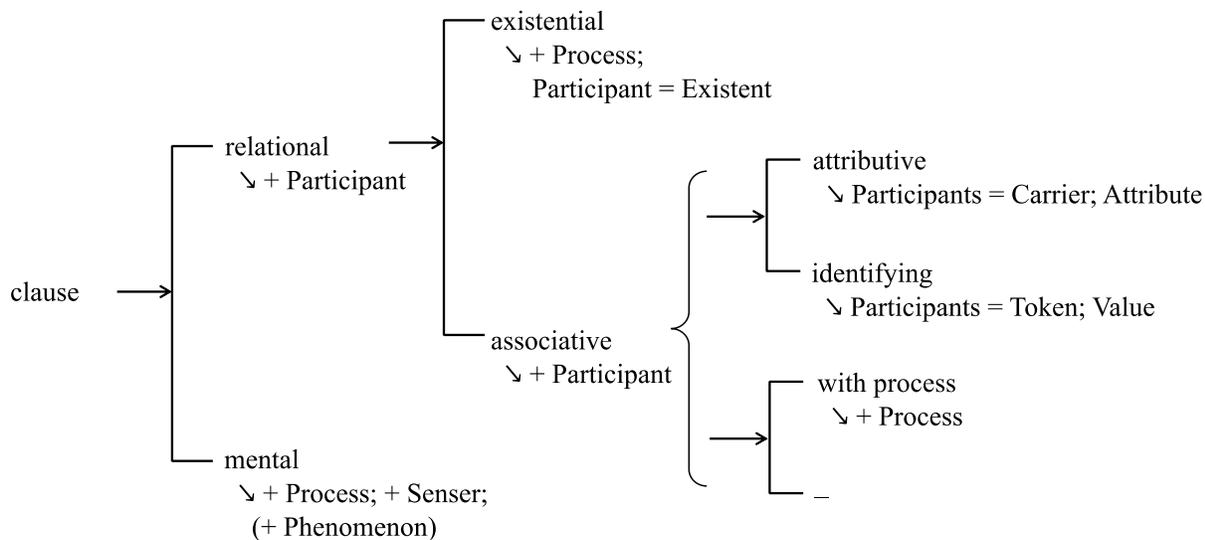


Figure 2. Network of relational and mental clauses

From the perspective of Text 1, mental and associative relational clauses function to enact evaluation throughout the text. In particular, they tend to occur in phases orienting toward character responses to the situation, either at the time of the event (reaction phase) or as an

explicit reflection in the character's voice about what has happened (reflection phase). To show this, the mental and associative relational clauses have been underlined below.

**Orientation**

setting        Aya beurit nu wani-wani naék ka gigir singa nu keur saré.

*There was a mouse who had the nerve to climb beside a sleeping lion.*

problem        <u>Singa kagét</u> [attributive], tuluy nyaring sarta beurit téh dicapluk.

*<u>The lion was startled</u>* [attributive] *and awoke, and the mouse was pounced upon.*

reaction

<u>Beurit sasambat</u> [mental], "Duh juragan, <u>mugi</u> [mental] juragan ngahapunten abdi. <u>Abdi terang</u> [mental] <u>juragan téh gagah sarta gedé wawanén</u> [attributive]. Upami badé maéhan abdi, <u>nu apes siga ayeuna</u> [attributive], <u>geus tangtu kirang saé kanggo kakongasan juragan</u> [attributive]. Bakal nurunkeun darajat juragan."

*<u>The mouse begged</u>* [mental] *"Oh Sir, <u>I hope</u>* [mental] *you forgive me. <u>I know</u>* [mental] *<u>you are extremely strong and hugely courageous</u>* [attributive]. *If you were to kill me, <u>who is as weak as I am now</u>* [attributive]*, <u>it would certainly be little good for your reputation</u>* [attributive]. *It will lower your standing."*

solution        Beurit téh dihampura sarta tuluy dilésotkeun

*The mouse was forgiven and then released.*

reflection        <u>Pok singa nyarita</u> [mental], "Ku aing dikencarkeun sotéh bakat ku karunya baé. <u>Aing henteu ngarep-ngarep kana pamales manéh</u> [mental]."

*<u>The lion said</u>* [mental] *"By me you were released because of pity only. <u>I do not wish for your repayment</u>* [mental].*"*

**Complication**

problem        Teu kungsi lila, Singa keuna ku jiret.

*Not long after, the lion was caught in a snare.*

reaction        Ambek [attributive] bari adug-adugan hayang leupas tina jiret, nepi ka béak tanagana.

*He was furious* [attributive]*, as he thrashed wanting to escape from the snare, until his energy expired.*

| | |
|---|---|
| problem | Batan lésot mah, éta jiret kalah ka beuki meulit. |
| | *Rather than loosening, the trap only twisted more.* |
| reaction | Gagauran matak sieun, nepi ka sato-sato séjén kalabur kataweuran. |
| | *The lion roared and roared, causing fear, until the other animals ran in chaos.* |

**Resolution**

| | |
|---|---|
| solution | Ngan <u>beurit téa anu teu sieuneun téh</u> [identifying], malah nulungan. Gancang nyampeurkeun. Jiret téh diségétan, nepi ka singa téh bisa kaluar jeung ngencar deui. |
| | *However, <u>the mouse was the one who was not a coward</u> [identifying], he even helped. He quickly approached. The snare was gnawed at, until the lion could escape and roam free once more.* |
| reflection | <u>Singa ngarumasakeun</u> [mental], lamun teu ditulungan ku beurit tangtu manéhna bakal paéh, sarta <u>rumasa</u> [mental] <u>omonganana ka beurit téh salah</u> [attributive]. |
| | *<u>The lion realised</u> [mental]*, *if he had not been helped by the mouse he certainly would have died, and <u>he realised</u> [mental] <u>his words to the mouse were wrong</u>* [attributive]. |

**Coda**

| | |
|---|---|
| comment | Hartina ieu dongéng: <u>Nyieun kahadéan jeung nyaah ka sasama téh tangtu aya ganjaranana, sanajan ka nu leutik</u> [identifying]. <u>Ari sababna henteu mustahil jalma leutik nulung pisan ka nu gedé</u> [identifying]. |
| | *The meaning of this tale: <u>doing good deeds and loving others are certainly their own reward, even to those who are small</u> [identifying]. <u>The reason is that it is not impossible for small people to really help those who are great</u>* [identifying]. |

Taking the first reaction phase as an example, the voice of the mouse is organised through a set of projecting mental clauses, with the mouse's speech regularly using attributive relational clauses to explicitly evaluate the lion. This is shown through clauses (20)-(25).

(20)  *Beurit*      *sa-sambat*
      mouse       RED-call.out
      mental clause

| Senser[9] | Process |
|---|---|
| *the mouse* | *begged* |

'the mouse begged'

(21)

| *"Duh jurangan* | *ø* | *mugi* | *juragan* | *nga-hapunten* | *abdi* |
|---|---|---|---|---|---|
| Oh Sir | (1S) | hope | Sir | ACT-forgiveness | 1S |
| mental clause | | | projected material clause | | |
| (Senser) | Process | | | | |
| *Oh Sir* | *(I)* | *hope* | *you forgive me* | | |

'"Oh Sir, I hope | you forgive me

(22)

| *Abdi* | *terang* | *juragan téh* | *gagah* | *sarta* | *gedé wawanén* |
|---|---|---|---|---|---|
| 1S | know | Sir TOP | extremely.strong | and | huge courage |
| mental clause | | projected attributive clause | | | |
| Senser | Process | Carrier | Attribute | | |
| *I* | *know* | *you* | *extremely strong and hugely courageous* | | |

'I know | you are extremely strong and hugely courageous

(23)

| *Upami* | *ø* | *badé maéh-an* | *abdi,* | *nu* | *apes* | *siga* | *ayeuna* |
|---|---|---|---|---|---|---|---|
| if | (2S) | FUT ACT/die-DER | 1S | LK | weak | like | now |
| material clause | | | | | attributive clause | | |
| | | | | | Attribute | | |
| *If you were to kill me, who* | | | | | *as weak as now* | | |

'if you were to kill me, who | is as weak as I am now

(24)

| *geus* | *tangtu* | *kirang* | *saé* | *kanggo* | *ka-kongas-an* | *juragan* |
|---|---|---|---|---|---|---|
| PERF | certainly | too.little | good | for | NM..-renowned-..LZ | sir |
| attributive | | | | | | |
| Process | | Attribute | | | | |
| *would* | *certainly* | *little good for your reputation* | | | | |

'it would certainly be little good for your reputation'

---

[9] As noted previously, in this paper we are not distingusihing mental and verbal clauses as we are simply establishing the grammatical environment for a more detailed focus on material clauses. In the English translation, this example would clearly be a verbal clause with a Sayer^Process structure, however for this overview, we will group them all as mentals with a Senser^Process structure.

(25)  *bakal nurun-keun*          *darajat*     *juragan"*
     FUT   ACT/descend-CAUS    level     Sir
     material clause
     'It will lower your standing'"

A similar pattern occurs throughout the story, where attitudinal evaluation and their positioning into the voice of either the mouse or the lion is realised through the interaction of mental and associative relational clauses. But stories of course do more than evaluate. They also present problematic events and their solutions. In this story, this is not done through relational and mental clauses but rather, for the most part, through material clauses.

## 4.  Material clauses in Sundanese

Whereas the reaction and reflection phases of the story tend to organise evaluations and comments on the events, the problem and solution phases are oriented to the ongoing events themselves. From the perspective of the register-variable field, these phases tend to include stretches of *activity*, where one event follows another in sequence – which in terms of ideational discourse semantics tend to be realised through occurrence figures (Hao 2020a). From a lexicogrammatical perspective, these occurrence figures in Sundanese tend to be realised by material clauses. In the Orientation stage, for example, both the initial problem of the mouse being pounced upon and the solution of the lion letting it go are realised grammatically by two material clauses (with the problem also including a relational clause, not analysed below). The following examples show a number of these activities and the configurations of material clauses that realise them at the stratum of lexicogrammar (non-material clauses will be put in square brackets). ^ indicates the activities are in sequence, + indicates they are in some sense simultaneous, and = indicates that the following activities constitute (or technically "moment") the previous activity (Doran and Martin 2020).

**Orientation**
problem         [Singa kagét], tuluy nyaring sarta beurit téh dicapluk

            *[The lion was startled], and awoke and the mouse was pounced upon.*

(26)  ø              nyaring
     (lion)          awoke
     (Actor)        Process
     *(the lion)*     *awoke*
     'the lion awoke'

     ^ sarta (and)

(27)     *beurit téh*      *di-capluk*
        mouse TOP      PASS-pounce.upon
        Goal             Process
        *the mouse*      *was pounced upon*
        'the mouse was pounced upon'

    …

solution                Beurit téh dihampura sarta tuluy dilésotkeun

                *The mouse was forgiven and then released.*

(28)     *beurit téh*      *di-hampura*
        mouse TOP      PASS-forgive
        Goal             Process
        *the mouse*      *was forgiven*
        'the mouse was forgiven'

   ^ sarta tuluy (and then)

(29)     *ø*               di-lésot-keun
        (mouse)          PASS-release-CAUS
        Goal             Process
        (mouse)          *was released*
        'was released'

These problem-solution phases are paralleled in the Complication and Resolution of the story. As with the Orientation stage, each phase involves activities realised grammatically by a series of material clauses. In the Complication, this activity involves worsening problems for the lion – being caught in a snare then struggling until its energy runs out, only for the snare to twist even more. Interspersed through the counterexpectant problems are reactions from both the lion and other animals. Unlike the reaction phase described above, those of the Complication are also organised through activities, as the lion embodies its reaction by *roaring*, and the other animals show their fear by running away. Finally, the mouse resolves the problem by approaching the lion and gnawing at the trap until the lion is able to escape and roam free. Examples (30) to (36) show the activity of the Complication, and examples (37) to (41) show the solution phase of the Resolution. We will use these clauses to develop systemic and structural description of the potential choices within material clauses (again, clauses in square brackets are not material clauses and so will not be listed below).

**Complication**

| | |
|---|---|
| problem | Teu kungsi lila, Singa keuna ku jiret. |
| | *Not long after, the lion was caught in a snare.* |

| | |
|---|---|
| reaction | [Ambek] bari adug-adugan [hayang leupas tina jiret], nepi ka béak tanagana. |
| | *[He was furious] and struggled [wanting to escape from the snare], [10] until his energy expired.* |

| | |
|---|---|
| problem | Batan lésot mah, éta jiret kalah ka beuki meulit. |
| | *Rather than loosening, the snare only twisted more.* |

| | |
|---|---|
| reaction | Gagauran [matak sieun], nepi ka sato-sato séjén kalabur kataweuran. |
| | *The lion roared and roared [causing fear], until the other animals ran in chaos.* |

(30)

| *Teu kungsi* | *lila* | *singa* | *keuna* | *ku jiret* |
|---|---|---|---|---|
| NEG too.little | long | lion | hit | by snare |
| | | Goal | Process | Actor |
| *Not long after* | | *lion* | *hit* | *by snare* |

'Not long after, the lion was caught by a snare'.

^

(31)

| ø | adug-adug-an |
|---|---|
| (lion) | RED-struggle-REP |
| (Actor) | Process |
| *(the lion)* | *struggled.and.struggled* |

'the lion thrashed'

^ nepi ka (*until*)

(32)

| *béak* | *tanaga-na* |
|---|---|
| expire | energy-3 |
| Process | Actor |
| *expired* | *his energy* |

'his energy expired'

^ Batan (rather than)

---

[10] This clause involves a verbal group complex *hayang leupas* (roughly *wanting to escape*). We are not considering clauses involving complexes such as this, so it will be left aside here.

(33)    *lésot  mah*
        loosen FOC
        Process
        loosen
        'loosening'

(34)    *éta  jiret*     *kalah ka*   *beuki*    *meulit*
        DEM snare     only  to    more     ACT/twist
        Actor           |                | Process
        *that snare*     *only*      *more*     *twisted*
        'the snare only twisted more'

       ^

(35)    *ø*          ga-gaur-an
        (lion)       RED-roared-REP
        (Actor)     Process
        *(the lion)*   *roared and roared*
        'the lion roared and roared'

     ^ nepi ka (until)

(36)    *sato-sato   séjén*    *k<al>abur*    *ka-taweur-an*
        RED-animal other     <PLU>run.away  NM..-pour-..LZ
        Actor               Process
        *the other animals*    *ran away*     *scatter*
        'the other animals ran away in chaos'

**Resolution**

solution          Ngan [beurit téa anu teu sieuneun téh], malah nulungan. Gancang
                    nyampeurkeun. Jiret téh diségétan, nepi ka singa téh bisa kaluar jeung
                    ngencar deui.

                    *However [the mouse was the one who was not easily afraid], he even*
                    *helped. He quickly approached. The snare was gnawed at until the lion*
                    *could escape and roam free once more.*

(37)    *ø*          *malah*    *nulung-an*
        (mouse)    even     ACT/help-DER

|  | (Actor) | Process |
|  | *(the mouse)* | *even* | *helped* |

'the mouse even helped'

=

(38)  ø       *gancang*   *nyampeur-keun*
     (mouse)     quickly    ACT/meet-CAUS
     (Actor)            Process
     *(the mouse)*   *quickly*   *approached*

'he quickly approached'

^

(39)  *jiret  téh*      *di-ségét-an*
     snare TOP     PASS-bite-REP
     Goal          Process
     *the snare*    *was gnawed at*

'the snare was gnawed at'

^ nepi ka (until)

(40)  *singa téh*     *bisa  kaluar*
     lion   TOP     MOD  escape
     Actor        Process
     *the lion*      *could escape*

'the lion could escape'

^ jeung (and)

(41)  ø            *ngencar*      *deui*
     (lion)        ACT/roam.free   once.more
     (Actor)       Process
     *(the lion)*     *roam free*     *once more*

'(the lion could) roam free once more'

Like mental clauses, Processes are the nucleus of material clauses. To begin our description of material clauses, we can look at example (26), repeated here as (42). In this example, the entire clause is simply the Process *nyaring* (*awoke*). This clause displays a typical thematic pattern in

21

Sundanese, where once the Theme has been established in a previous clause (in this case *Singa*, "the lion"), it tends to be elided until there is a change in Theme. We can see this by inserting an Actor that performs the action, as shown in (42').

(42)    nyaring
        awoke
        Process
        *awoke*
        '(the lion) awoke'

(42')   singa      nyaring
        lion       awoke
        Actor     Process
        *the lion*   *awoke*
        'the lion awoke'

The clause in (42) contrasts with clauses (43) and (44) (taken from a separate text to Text 1). In (43), there is no participant in the clause, but unlike the previous clause, one cannot be inserted (as shown in 44).

(43)    *hujan*
        rain
        Process
        *rain*
        'It's raining'

(44)    *\*manehna*   *hujan*
        3s           rain
        Actor      Process
        nom. gp.   vb. gp.
        *he*        *rained*
        '\*he rained'

These "participantless" clauses tend to construe meteorological phenomena, such as the rain in the above. For there to be a participant in examples like these, a circumfix *ka…an* needs to occur on the verb, indicating an "afflictive" meaning.[11]

---

[11] Like many affixes in Sundanese, *ka…an* is a particularly multi-functional morpheme, occurring in a range of grammatical environments with distinct functions. This paper will not explore the network of morphemes on their own terms but will rather focus on their role in realising clause grammar. As such, certain morphemes that appear to be the same will at times be given different labels depending on the role they are playing in that instance. Robins (1959, 1965, 1968) provides a rich description of the functionality of various morphemes in Sundanese.

(45)   *manehna*          *ka-hujan-an*
       3s                 AF…-rain-…FL
       Actor              Process
       *he*               *get.caught.in.the.rain*
       'He got caught in the rain'

This distinguishes our first two types of material clause: meteorological (participantless) clauses and "participatory" clauses. It also enables material clauses to be contrasted with mental and relational clauses. Figure 3 presents a network showing this contrast, indicating that whereas mentals necessitate both a Process and a Participant (more specifically a Senser and/or a Phenomenon) and relationals involve either one or two Participants but only optionally a Process, material clauses necessarily involve a Process, but are variable in terms of whether they include a Participant. Indeed as we will see, the number and configuration of Participants in material clauses varies considerably in comparison to mental and relational clauses.
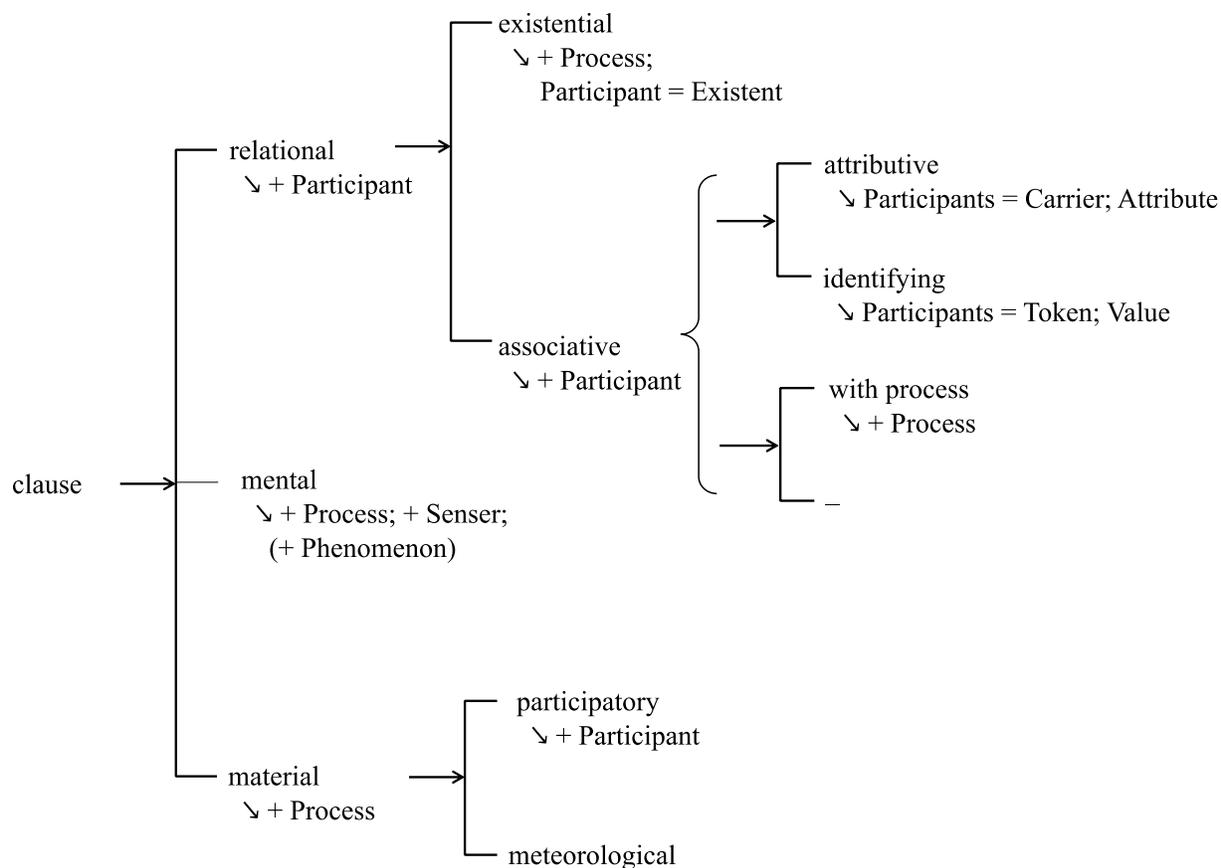


Figure 3. Network of material, mental and relational clauses

Moving further into the description of material clauses, within participatory clauses, a distinction can be made on the basis of how many Participants are implicated by the Process. (42) above is an intransitive clause that involves only a single Participant – an Actor. We will distinguish between intransitive clauses that are afflictive with a typically meteorological verb root affixed by *ka-…-an*, and those that do not mark affliction, that we will call *occurrent* clauses. In intransitive clauses, Actors are typically placed before the Process. But as the intransitive[12] clause (46) taken from the Complication stage of our text shows, this ordering is not strict; some variation can occur for textual reasons.

(46)　*béak*　　*tanaga-na*
　　　　expire　　energy-3
　　　　Process　　Actor
　　　　*expired*　　*his energy*
　　　　'his energy expired'

In contrast to intransitive clauses, transitive clauses involve a second participant implicated by the Process. This participant will be called the Goal, shown in (47).

(47)　*singa*　*badé maeh-an*　　*abdi*
　　　　lion　　FUT　ACT/die-DER　1S
　　　　Actor　Process　　　　Goal
　　　　*lion*　*will kill*　　*me*
　　　　'The lion will kill me'

To explore more delicate types of transitive clause, we must focus on the morphology of verbs. Beginning with (47) above, there are two main morphological processes to note. The first is the suffixation *-an*. The root of this verb, *paeh*, means *die* and typically occurs in an intransitive clause. The use of the suffix *-an* derives a transitive verb from this: *paehan, kill*. A common alternative to *-an* in deriving transitive clauses from intransitives is the suffix *-keun*, typically labelled a causative suffix (e.g. Müller-Gotama 2001).[13] The second morphological process involves the nasalisation of the stem *paehan* to become *maehan*. Here, nasalisation indicates an active verb that helps realise the voice of the clause. This nasalisation is a regular

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[12] This clause is intransitive, rather than being a transitive clause with an elided Actor, as we cannot insert another Participant before the Process and the verb does not include the nasalisation or prefixation common to transitive clauses, as will be detailed below.

[13] Like the *ka-…-an* suffix above, both *-an* and *-keun* are multifunctional, depending on the construction. *-an* in this case derives a transitive verb from an intransitive, however it is also used to indicate repetition, such as in (42) above, as well as both nominalisation of verbs and verbalisation of nouns, comparatives on adjectives, and a range of other functions (Robins 1959). In contrast, *-keun* is a little more restricted, primarily indicating a causative, or more generally an expansion in the valency of the verb, either from noun, adjective or monovalent (intransitive) verb to a bivalent (transitive) verb, or from bivalent verbs to particular types of trivalent (ditransitive) verbs (Müller-Gotama 2001: 25).

morphophonemic process, with p/b➔m, t/d➔n, c/s➔ny, k/g➔ng, roots beginning with vowels taking the prefix *ng-* and those with other consonants taking *nga-* (Robins 1953b).[14]

A second type of transitive clause that occurs throughout our text involves the use of the passive prefix *di-* in the verb, rather than nasalisation. Adapting clause (39) above, we can contrast (48) and (49) to show this distinction.

(48)   *beurit*       *nyégét-an*     *jiret*
       mouse          ACT/bite-REP    snare
       Actor          Process         Goal
       *mouse*        *gnawed.at*     *snare*
       'The mouse gnawed at the snare'

(49)   *jiret*    *di-ségét-an*    *ku beurit*
       snare      PASS-bite-REP    by mouse
       Goal       Process          Actor
       *snare*    *was.gnawed.at*  *mouse*
       'The snare was gnawed at by the mouse'

Clauses (48) and (47) illustrate a distinction in voice. In order to distinguish the clause-based alternations from the variations in lower ranks such as the verbal morphology, we shall follow Halliday's description of English (Halliday and Matthiessen 2014) and call the clause in (48) operative voice and that of (49) receptive voice.[15] As (48) shows, operative voice tends to have the sequence Actor^Process^Goal and a verb that is nasalised. (49) in contrast shows three key features of receptive clauses. First, the Goal tends to precede the Process; second, the Actor is generally realised by a "*ku* phrase", with *ku* preceding the nominal group; and finally, whereas verbs realising Processes in operative clauses tend to be nasalised, in receptive clauses they tend to include a prefix – in this case *di-*. The system as it stands to this point is shown in Figure 4. This system indicates that material clauses necessarily have a Process, but may or may not have a Participant (meteorological clauses do not, participatory clauses do). If there is a Participant,

---

[14] Nasalisation in this instance indicates voice in transitive clauses. But as Kurniawan (2012) points out, it can also occur in intransitive clauses. As we are not describing Sundanese morphology here, this does not affect the description in this paper; but Kurniawan's discussion does indicate that there is not a one-to-one mapping of verbal morphology to clause types.

[15] Much discussion has taken place in the typological literature regarding voice contrasts in Indonesian-type and Sundic-type languages (and Western Austronesian languages in general). Rather than an active-passive contrast, what we call operative voice here is often termed *actor voice*, while what we call receptive here is associated with a significant debate as to whether a distinction should be made between an *undergoer* voice (where, among other things, the Actor is typically not marked by a preposition) and passive voice (that is typically marked by a preposition), or other proposals (e.g. Chen and McDonnell 2019; Himmelmann 2005; Gil 2015). This debate will not be explored here in any detail as it tends to rely on a highly syntagmatic understanding of languages. The differences discussed in the literature tend to be neutralised in a Systemic Functional description when paradigmatic description, the distribution of the description across ranks and metafunctions, and their function in discourse is considered (Martin and Quiroz 2020).

this clause may be intransitive, in which case the Participant is an Actor, or a transitive, in which case at least one of the participants will be a Goal. Intransitive clauses may be either afflictive, indicated by the verbal circumfix *ka-…-an* or occurrent. Transitive clauses may be operative, in which case the Process involves an active verbal group and there is an Actor, or receptive, in which case the Process involves a passive verbal group.
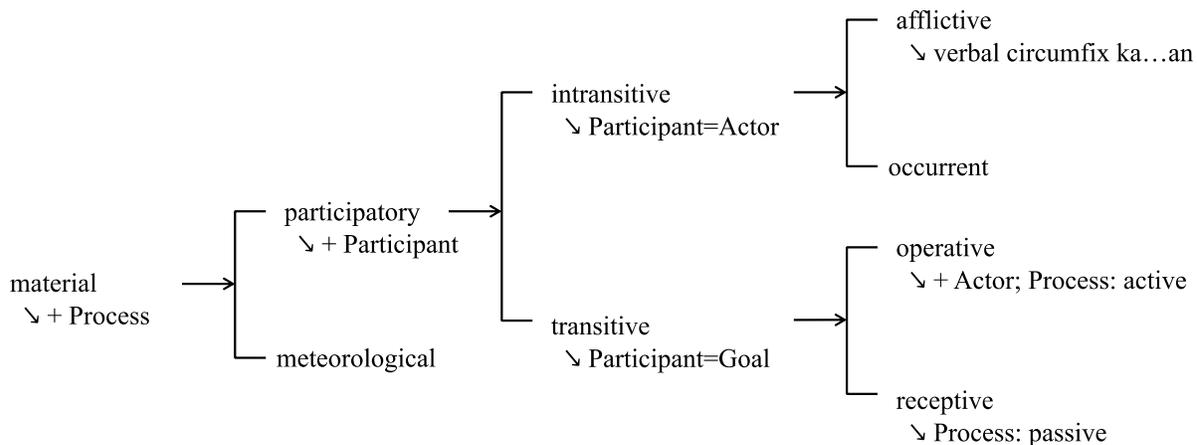


Figure 4. Partial network of material clauses

The three features of operative clauses – the ordering of constituents, the use of *ku* and the use of the prefix *di-* – offer a neat distinction between operative clauses and receptive clauses. However, working across texts one encounters considerable variation. First, due to variations of information flow, there is a range of choices regarding the constituent order, as shown by (50) taken from our story.

(50)   *ku aing*     *di-kencar-keun*
       by  me      PASS-roam.free-CAUS
       Actor       Process
       *by me*     *were released*
       'By me (you) were released'

This is a receptive clause due to the use of *di-* on the verb and *ku* for the Actor. However, the Actor here has been moved to the front and the Goal has been elided following the patterns noted above. We have "filled in" the ellipsis in (50').

(50')   *ku aing*   *(manéh)*      *di-kencar-keun*
       by  me   (2SG)       PASS-roam.free-CAUS
       Actor   (Goal)      Process

| | | |
|---|---|---|
| *by me* | *(you)* | *were released* |

'By me you were released'

More commonly, the Actor is dropped altogether. This is shown in clauses (51-54) from the initial problem-solution pair in the Orientation. Such "agentless" clauses are relatively common, and when combined with elliptical Goals, mean the entire clause can be realised by the Process only – as shown in (53). For this reason, the verbal morphology bears much of the workload in distinguishing clause types.

(51)  *beurit téh*   di-capluk
     mouse TOP   PASS-pounce.upon
     Goal          Process
     *the mouse*   *was pounced upon*
     'the mouse was pounced upon'

(52)  *beurit téh*   di-hampura
     mouse TOP   PASS-forgive
     Goal          Process
     *the mouse*   *was forgiven*
     'the mouse was forgiven'

(53)  *ø*         di-lésot-keun
     (mouse)     PASS-release-CAUS
     (Goal)      Process
     (mouse)    *was released*
     'the mouse was released'

In addition, there is a distinction in the possible prefixes on the verbs that mark volition. The *di-* prefix in the examples so far is the most common prefix and indicates that the action was intentional. In contrast, the use of *ka-* indicates a non-volitional, accidental action, shown in (54) and (55).

(54)  *beurit*      di-lésot-keun   ku singa
     mouse       PASS-release-CAUS   by lion
     Goal         Process           Actor
     (mouse)    *was released*    *by the lion*
     'the mouse was released (intentionally) by the lion

(55)  *beurit*      ka-lésot-keun   ku singa
     mouse       PASS-release-CAUS   by lion

| Goal | Process | Actor |
|------|---------|-------|
| (mouse) | *was released* | *by the lion* |

'the mouse was released (accidentally) by the lion

We can add these options to our network, shown in Figure 5. This indicates that within receptive clauses, there are two sets of options: whether or not there is an Actor (acted vs non-acted) and whether or not the action is intentional (shown by the verbal prefix *di-*) or accidental (shown by *ka-*).
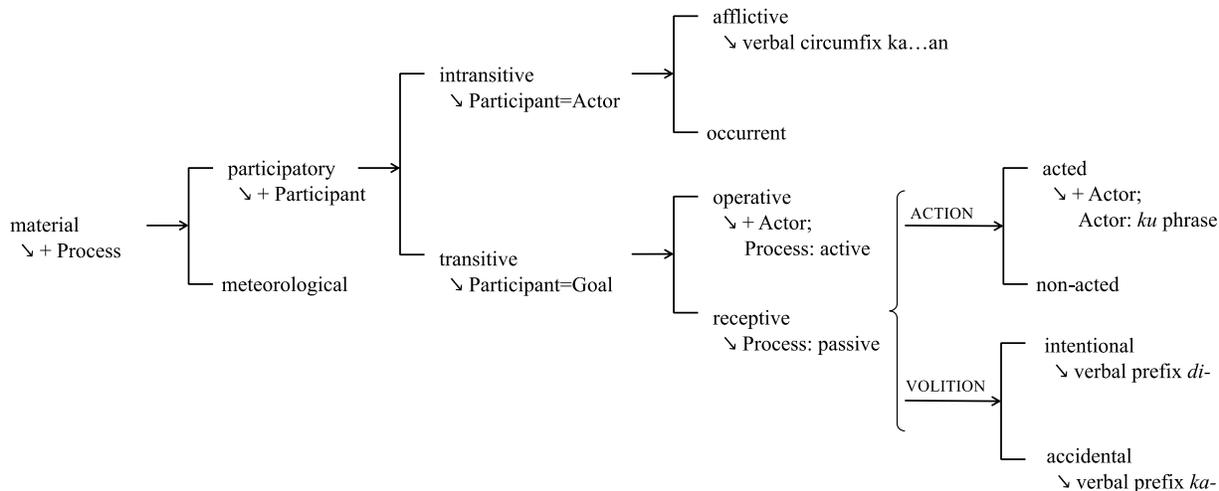
Figure 5. Expanded network of material clauses

Coming back to the role of material clauses in our text, we have mentioned previously that the material clauses form a crucial realisational choice for organising activities in the problem and solution phases. In this sense, they are the lexicogrammatical resource for moving the story along. But more than that, the range of options of materials are utilised throughout to specify who does the action at any stage. The preferred configuration throughout this text is clauses where no more than one participant is specified. In this way, the text is content with specifying only enough ideational meaning to make clear the particular participant new or relevant for the clause. But this apparent similarity hides the different means through which the text does this and the effects this has. At times, this single participant arises through intransitive clauses, where there is no indication anything is being affected by the action (e.g. *(beurit) malah nulungan,* "(the mouse) even helped"; *(the mouse) gancang nyampeurkeun,* "(the mouse) quickly approached"). But in other situations, it is clear there is a second participant doing the action, but that it is being left out (e.g. *beurit téh dicapluk*, "the mouse was pounced upon"; *beurit téh dihampura,* "the mouse was forgiven"). In this sense, the material clauses not only organise activity throughout the text, but the involvement or not of participants. Indeed, in the next section, we will see that material clauses in Sundanese enable a considerable elaboration of participants involved in a single event.

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### *4.1 Benefactives*

The final contrast we will discuss in this paper is the possible inclusion of additional benefactive Participants. For this, we need to move beyond our story text for examples, as illustrated by example (56).

| (56) | *Beurit* | *méré* | *singa* | *daging* |
|---|---|---|---|---|
| | mouse | ACT/give | lion | meat |
| | Actor | Process | Recipient | Goal |
| | *the mouse* | *gave* | *the lion* | *meat* |

'The mouse gave the lion meat'

In this clause, the additional participant, labelled Recipient, is positioned between the Process and the Goal. In notional terms, the Recipient is the participant that receives possession of the Goal. This is shown more explicitly in (57), where the order of the Goal and the Recipient is swapped around, and the Recipient is marked with *ka* (roughly translated as "to").

| (57) | *Beurit* | *méré* | *daging* | *ka singa* |
|---|---|---|---|---|
| | mouse | ACT/give | meat | to lion |
| | Actor | Process | Goal | Recipient |
| | *the mouse* | *gave* | *meat* | *to the lion* |

'The mouse gave meat to the lion'

The benefactive clauses in (56) and (57) contrast with a second type of benefactive noted by Robins (1968) and Hardjadibrata (1985). This class is distinguished on the basis of verbal morphology and the particular preposition that can be taken, but also by the significantly greater variation it shows in the configuration of participants. (58) shows an example of such a clause:

| (58) | *beurit* | *meuli-keun* | *daging* | *keur singa* |
|---|---|---|---|---|
| | mouse | ACT/buy-CAUS | daging | for lion |
| | Actor | Process | Goal | Client |
| | *the mouse* | *buy* | *meat* | *for the lion* |

'The mouse bought meat for the lion'

In this clause, the extra participant will be termed Client. Notionally, Clients are the participant that an action is done for. Like the Recipient example above, the Client can be moved before the Goal and realised by a nominal group as in (59):

| (59) | *beurit* | *meuli-keun* | *singa* | *daging* |
|---|---|---|---|---|
| | mouse | ACT/buy-CAUS | lion | meat |

| Actor | Process | Client | Goal |
|---|---|---|---|
| *the mouse* | *buy* | *the lion* | *meat* |

'The mouse bought the lion meat'

A key feature differentiating these two participants is the preposition that is used in the oblique position. For the recipiency clause in (57), the preposition is *ka* (roughly translated as "to"); for the cliency clause in (58) the preposition is *keur* (roughly translated as "for"). This distinction in preposition is mirrored by a distinction in the possible verbal morphology that each type of clause can take, which has significant ramifications for the possible participant configurations. In the case of the recipient-type clauses (those using *ka*), the verbal morphology is relatively straight-forward, being no different to the non-benefactive clauses shown previously. In (57) above, the base form *béré* has been nasalised (*méré*) to indicate operative voice, but otherwise there is no other marking. In contrast, the client-type clauses (taking *keur*) necessarily involve a range of "benefactive" verbal morphology. As shown in (58) and (59), in addition to the voice nasalisation, the verb includes the causative suffix *-keun*.

This suffix is crucial in the realisation of cliency benefactives. Although it is possible for similar verbs to occur without the causative suffix in what appears to be a cliency situation (as in (60)), it no longer becomes possible to move the *keur singa* into a core position (as shown by the unacceptability of (61)). That is, without the causative suffix, the beneficiary of the clause cannot be moved before the Goal and realised by a nominal group.

(60)

| *beurit* | *meuli* | *daging* | *keur singa* |
|---|---|---|---|
| mouse | ACT/buy | meat | for   lion |
| Actor | Process | Goal | |
| *the mouse* | *buy* | *meat* | *for the lion* |

'The mouse bought meat for the lion'

(61)

| *\*beurit* | *meuli* | *singa* | *daging* |
|---|---|---|---|
| mouse | ACT/buy | lion | meat |
| Actor | Process | Client | Goal |
| *the mouse* | *buy* | *the lion* | *meat* |

'*The mouse bought the lion meat'

For this reason, where the verb does not include the causative suffix in (60), the *keur singa* (for the lion) is better analysed as a circumstantial element rather than as a Client, as it is necessarily peripheral to the Process-Participant configuration of the clause.

In addition to the causative suffix, cliency-type benefactives can include further verbal morphology that indicates additional agency of some sort. An example of this is given in (62), where a prefix *pang-* (which we will label as an external agent prefix EXT), has been inserted. In this type of clause, it is common for both the prefix *pang-* and the root, here *beuli*, to be nasalised in the active, giving *mang-meuli-keun*.

(62)     *beurit*        *mang-meuli-keun*        *singa*      *daging*
            mouse        ACT/EXT-ACT/buy-CAUS     lion       meat
            Actor          Process              Client     Goal
            *the mouse*    *buy.something.for.someone*   *the lion*   *meat*
            'The mouse (had someone) buy the lion meat'

As the translation of this instance shows, the use of *pang-* can indicate that the Actor had someone else buy meat for the lion, rather than them buying it themselves. In this sense, (62) is at times agnate to clauses with an explicit additional agent such as the Initiator (a participant who intiates the action) in (63).

(63)     *beurit*       *nyuruh*     *sato séjén*       *meuli-keun*       *singa*      *daging*
            mouse       ACT/order    animal other     ACT/buy-CAUS     lion       meat
            Initiator     Process     Actor           Process            Client     Goal
            *the mouse*   *ordered*   *another animal*   *buy*           *the lion*   *meat*
            'The mouse ordered another animal to buy the lion meat'

This construction can also, however, simply indicate that the Actor is the one doing the action, as shown by Hardjadibrata's (1985: 93) example in (64).

(64)     *Salim*        *mang-nyieun-keun*       *anak-na*      *langlayangan*
            Salim         ACT/EXT-ACT/make-CAUS    child-3      kite
            Actor          Process              Client      Goal
            *Salim*        *create.something.for.someone*   *his child*    *a kite*
            'Salim made his son a kite'

We will not explore any further the possibilities for additional agents here. But these examples illustrate the potential expansion in agency afforded by the interplay between the verbal morphology and participant configurations in Sundanese.

There is, however, one final variable we will consider. This arises from the fact that verbs that would typically realise recipiency-type clauses (when they are unmarked by benefactive verbal morphology) realise cliency-type clauses when marked by *pang-…-keun*. To see this, we can compare clauses (65) and (66) (which repeat 56 and 57 above) to (67) and (68). In (65) and (66), the verb *béré* (*méré*) is unmarked by benefactive morphology and the Recipient takes the preposition *ka* in (66).

(65)     *Beurit*        *méré*          *singa*         *daging*

| mouse | ACT/give | lion | meat |
|---|---|---|---|
| Actor | Process | Recipient | Goal |
| *the mouse* | *gave* | *the lion* | *meat* |

'The mouse gave the lion meat'

(66)

| *Beurit* | *méré* | *daging* | *ka singa* |
|---|---|---|---|
| mouse | ACT/give | meat | to lion |
| Actor | Process | Goal | Recipient |
| *the mouse* | *gave* | *meat* | *to the lion* |

'The mouse gave meat to the lion'

When using the benfactive marking *pang-…-keun*, on the other hand, *sato séjén* (another animal) becomes a Client marked with *keur* in (68), and the clause is read as something like "the mouse (has someone) give meat (for the benefit of) another animal".

(67)

| *Beurit* | *mang-méré-keun* | *sato* *séjén* | *daging* |
|---|---|---|---|
| mouse | ACT/EXT-ACT/give-CAUS | animal other | meat |
| Actor | Process | Client | Goal |
| *the mouse* | *give.something.for.someone* | *another animal* | *meat* |

'The mouse (had someone) give meat (for the benefit of) another animal'

(68)

| *Beurit* | *mang-méré-keun* | *daging* | *keur sato* *séjén* |
|---|---|---|---|
| mouse | ACT/EXT-ACT/give-CAUS | meat | for animal other |
| Actor | Process | Goal | Client |
| *the mouse* | *give.something.for.someone* | *meat* | *for another animal* |

'The mouse (had someone) give meat for another animal'

The importance of this is that it enables the clause to then add a *ka* phrase as a Recipient[16] as well as a Client as shown in (69) and (70). Due to this extra participant, Hardjadibrata (1985) calls this a "tritransitive" clause.

(69)

| *Beurit* | *mang-méré-keun* | *sato* *séjén* | *daging* | *ka singa* |
|---|---|---|---|---|
| mouse | ACT/EXT-ACT/give-CAUS | animal other | meat | to lion |
| Actor | Process | Client | Goal | Recipient |
| *the mouse* | *gave.something.for.someone* | *another animal* | *meat* | *to the lion* |

'The mouse (had someone) give meat to the lion (for the benefit of) another animal'

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[16] Our labelling of this participant as a Recipient goes against our previous criterion for such beneficiaries, in that it cannot be moved in this situation to a 'core' position before the Goal and realised by a nominal group (i.e. it must be marked by *ka*). Nonetheless, this labelling does seem to highlight the crucial feature that these types of clauses enable both a participant for which the action is done and a participant to which the action is directed. For this reason, the term Recipient will be used here in a notional way, pending further exploration and argumentation.

(70)    *Beurit*      *mang-méré-keun*      *daging*      *keur sato séjén*      *ka singa*

| mouse | ACT/EXT-ACT/give-CAUS | meat | for animal other | to lion |
|---|---|---|---|---|
| Actor | Process | Goal | Client | Recipient |
| *the mouse* | *gave.something.for.someone* | *meat* | *for another animal* | *to the lion* |

'The mouse (had someone) give meat for another animal to the lion'

Each of the clauses (56)-(70) can alternate into a receptive clause, with either the Goal or the Client/Recipient moving before the Process and with or without the Actor specified. This involves replacing the active nasalisation with *di-* as in most operative-receptive alternations. Although we will not illustrate every alternation here, (71) shows an example of recipiency voice alternations, while (72) and (73) show examples of cliency voice alternations with *pang-…-keun*.[17]

(71)    *singa*      *di-béré*      *daging*      *ku beurit*

| lion | PASS-give-CAUS | meat | by mouse |
|---|---|---|---|
| Recipient | Process | Goal | Actor |
| *the lion* | *was given* | *meat* | *by the mouse* |

'The lion was given meat by the mouse'

(72)    *singa*      *di-pang-meuli-keun*      *daging*    *ku beurit*

| lion | PASS-EXT-buy-CAUS | meat | by mouse |
|---|---|---|---|
| Client | Process | Goal | Actor |
| *the lion* | *was.bought.something.for.someone* | *meat* | *by the mouse* |

'(for the benefit of) the lion, the meat was made to be bought (by someone) by mouse'
alt. 'the lion had the meat be made to be bought (by someone for him) by the mouse'

(73)    *daging*      *di-pang- meuli -keun*      *ku beurit*      *keur singa*

| meat | PASS-EXT-buy-CAUS | by mouse | for lion |
|---|---|---|---|
| Goal | Process | Actor | Client |
| *meat* | *was.bought.something.for.someone* | *by the mouse* | *for the lion* |

'the meat was made to be bought by the mouse for the lion'

The full network of options for material clauses discussed in this paper is shown in Figure 6. For transitive clauses, this network indicates that there may be an optional Beneficiary (shown through the choice of *benefactive*). If there is a beneficiary, there are two main sets of choices. The first is whether the Beneficiary is a Recipient or a Client (recipiency vs cliency). If a Client, there is a choice between whether there is an external agent not specified, shown through the verbal prefix *pang-*, or not, and then if so, whether there is an extra Recipient or not. The second

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[17] Hardjadibrata (1985: 100-104) notes a few further variations and restrictions that occur in receptive clauses with additional participants that we will not explore here. For this reason, we will not formalise all the possible alternations of the receptive benefactive clauses in our network below.

set of choices distinguishes between whether Client or Recipient is given by a nominal group or a prepositional phrase. If a prepositional phrase, Clients will be marked by *keur* and Recipients will be marked by *ka*.
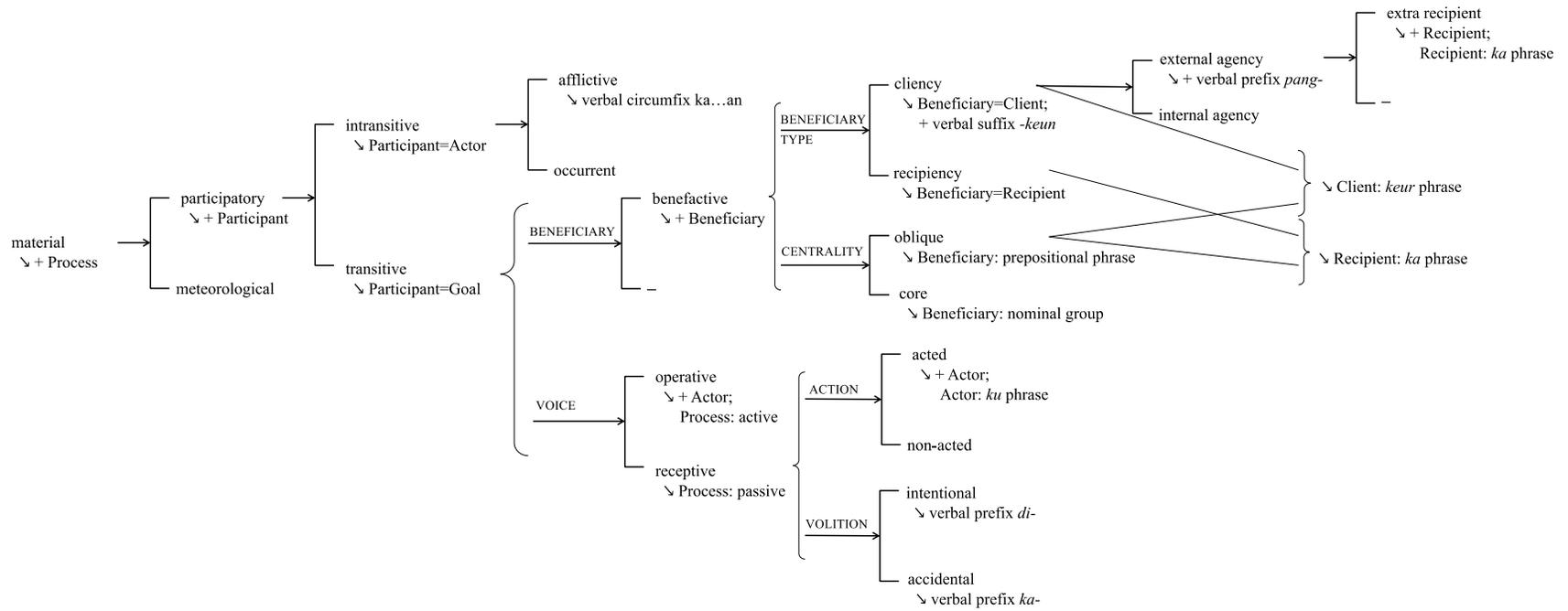
Figure 6. Full network of material clauses

## 5. Conclusion

The mapping of material clauses within the system of TRANSITIVITY in this paper offers an initial move toward a Systemic Functional description of Sundanese. Importantly, this overview was developed in a way that enabled these lexicogrammatical resources to be viewed in relation to the broader text patterns of Text 1, including genre staging and phasing, field-based activity and discourse semantic patterns of IDEATION and APPRAISAL. In the story used to exemplify the description, mental and relational clauses interacted to realise the evaluative meanings and voices that permeate certain phases of the text. In contrast, material clauses were used to realise stretches of activity that occurred in the problems and solutions, and the configurations of participants involved in these activities. The paper also showed that in order to organise material clauses, Sundanese utilises both verbal morphology and configurations of participants. In this sense, this paper linked morphological variation with higher level lexicogrammatical variation, and this lexicogrammatical variation in turn with discourse semantic, register and genre variation. Systemic Functional Linguistics is known for its wide appliability and its interventionist stance, especially in education. For its education work to be used across languages, it must be built upon detailed text-based descriptions of the language in use. This paper takes a step toward such a description for Sundanese.

**Appendix**: Morphemic glossing and clause-class analysis of *Singa jeung beurit* Text.

(i) *Aya     beurit     nu     wani-wani     naék ka gigir     singa     nu keur saré.*
     EXIST   mouse     REL     RED-brave     climb to side     lion     REL PROG sleep
     relational:existential
     'There was a mouse who was brave enough to climb beside a sleeping lion.'

(ii) *Singa     kagét,*
      lion     startled
      'The lion was startled,'

(iii) *tuluy     nyaring*
       then     awoke
       material:intransitive:occurrent
       'then awoke'

(iv) *sarta     beurit téh     di-capluk.*
      and     mouse TOP     PASS-pounce.upon
      material:transitive:receptive:non-acted/intentional
      'and the mouse was pounced upon.'

(v)    *Beurit   sa-sambat*
mouse   RED-call.out
mental
'The mouse begged'

(vi)    *"Duh jurangan    mugi    juragan  nga-hapunten     abdi*
"Oh Sir          hope   Sir       ACT-forgiveness   1s
material:transitive:operative
' "Oh Sir, I hope you forgive me.'

(vii)    *Abdi    terang*
1S       know
mental
'I know'

(viii)  *juragan téh    gagah           sarta         gedé wawanén*
Sir    TOP   extremely.strong   and          huge courage
relational:associative:attributive
'you are extremely strong and hugely courageous'

(ix)    *Upami   badé maéh-an*
if         FUT  ACT/die-DER
material:transitive:operative
'If you were to kill me,'

(x)    *nu apes  siga ayeuna*
LK weak like  now
relational:associative:attributive
'who is as weak as I am now,'

(xi)    *geus tangtu     kirang  saé    kanggo    ka-kongas-an        juragan*
PERF certainly    too.little good   for        NM..-renowned-..LZ   sir
relational:associative:attributive
'it would certainly be little good for your reputation.'

(xii)    *bakal nurun-keun         darajat   juragan."*
FUT   ACT/descend-CAUS   level      Sir
material:transitive:operative
'It will lower your standing"'

(xiii)   *beurit téh*        *di-hampura*
         mouse TOP        PASS-forgive
         material:transitive:receptive:non-acted/intentional
         'The mouse was forgiven'


(xiv)    *sarta tuluy*    di-lésot-keun.
         and   then      PASS-release-CAUS
         material:transitive:receptive:non-acted/intentional
         'and then released.'


(xv)     *Pok singa nyarita*
         say  lion   ACT/tell
         mental
         'The lion said'


(xvi)    *ku aing*    *di-kencar-keun*           *sotéh*          *bakat ku*       *karunya baé*
         by  me      PASS-roam.free-CAUS    truly.because    character of    pity       only
         material:transitive:receptive:acted/intentional
         ' "By me you were released because of pity only.'


(xvii)   *Aing*     *henteu*     *ngarep-ngarep*            *kana*     *pa-melas*     *manéh*
         1.SG      NEG        ACT/wish-ACT/wish       for       DER-response 2.SG
         mental
         'I do not wish for your repayment."'


(xviii)  *Teu kungsi*   *lila,*      *singa*     *keuna*     *ku jiret*
         NEG too.little  long      lion       hit         by snare
         material:transitive:receptive:acted
         'Not long after, the lion was caught by a snare.'


(xix)    *Ambek,*
         furious
         relational:associative:attributive
         'He was furious,'


(xx)     *bari*     *adug-adug-an*
         while     RED-struggle-REP
         material:intransitive:occurrent
         'as he thrashed'


(xxi)    *hayang*   *leupas tina*   *jiret*
         want       loose   from snare

'wanting to escape from the snare,'

(xxii)   *nepi ka   béak    tanaga-na.*
until to   expire   energy-3
material:intransitive:occurent
'until his energy expired.'

(xxiii)    *Batan      lésot  mah,*
rather.than   loosen FOC
material:instransitive:occurrent
'Rather than loosening,'

(xxiv)   *éta jiret   kalah ka   beuki    meulit.*
DEM snare   only to    more   ACT/twist
material:intransitive:occurrent
'the snare only twisted more.'

(xxv)    Ga-gaur-an
RED-roared-REP
material:intransitive:occurrent
'The lion roared and roared.'

(xxvi)   *matak   sieun*
causing afraid
material:transitive:operative
'causing fear.'

(xxvii)   *nepi ka   sato-sato   séjén   k<al>abur      ka-taweur-an.*
until to    RED-animal  other    <PLU>run.away    NM..-pour-..LZ
material:intransitive:occurrent
'until the other animals ran in chaos.'

(xxviii)   *Ngan     beurit téa   anu teu sieun-eun  téh    malah   nulung-an.*
however   mouse TOP   REL NEG afraid-NMLZ TOP   even   ACT/help-DER
relational:associative:identifying
'However the mouse was the one who was not a coward, he even helped.'

(xxix)   *gancang    nyampeur-keun*
quickly     ACT/meet-CAUS
material:intransitive:occurrent

'He quickly approached.'

(xxx)  *jiret téh    di-ségét-an*
snare TOP     PASS-bite-REP
material:transitive:receptive:non-acted/intentional
'the snare was gnawed at'

(xxxi)  *nepi ka    singa téh    bisa kaluar*
until to    lion  TOP     MOD escape
material:intransitive:occurrent
'until the lion could escape'

(xxxii)  *jeung    ngencar        deui*
and      ACT/roam.free   once.more
material:intransitive:occurrent
'and roam free once more.'

(xxxiii)  *Singa   nga-r<um>asa-keun,*
lion     ACT-<DER>feel-CAUS
mental
'The lion realised,'

(xxxiv)  *lamun    teu  di-tulung-an        ku beurit*
if        NEG PASS-help-CAUS     by mouse
material:transitivie:receptive:acted/intentional
'if he had not been helped by the mouse'

(xxxv)  *tangtu  manehna    bakal paéh*
certain 3S            FUT   die
material:intransitive:occurrent
'he would certainly have died'

(xxxvi)  *sarta     r<um>asa*
and       <DER>feel
mental
'and he realised'

(xxxvii)  *omong-an-ana    ka beurit téh    salah*
speak-NMLZ-3      to mouse TOP     wrong
relational:associative:attributive
'his words to the mouse were wrong.'

(xxxviii)   *Harti-na        ieu  dongéng:*
          meaning-3     this tale
          'The meaning of this tale:'


(xxxix)   *Nyieun    ka-hadé-an        jeung    nyaah    ka sasama téh    tangtu    aya    ganjar-an-ana*
          make       NM..-good-..LZ    and      love     to others TOP    certain   is     reward-NMLZ-3
          relational:associative:identifying
          'doing good deeds and loving others are certainly their own reward'


          *sanajan     ka     nu  leutik.*
          even        to      REL small
          'even to those who are small'


(xl)      *Ari      sabab-na     henteu   mustahil       jalma leutik    nulung    pisan    ka nu gedé*
          EMPH     motive-3     NEG      impossible     person small    ACT/help  very     to REL great
          relational:associative:identifying
          'The reason is that it is not impossible for small people to really help those who are great.'


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