**The Interpersonal Meaning of Javanese**

**Catholic Daily Prayers**

**Ratna Kusumawardhani**

***Abstract***

*Prayer is created in a certain cultural and situational context. Prayer also contains interpersonal meaning. The purpose of the study is aimed at describing the realization of interpersonal meaning found in Javanese Catholic daily prayers. The study is a descriptive qualitative research as the aim of the study is to describe the interpersonal meaning of Javanese Catholic daily prayers. The study was conducted based on clause, modality, and appraisal devices . Clause analyses and its modality are used to know the relation between the speaker and the addressee. Here, the relation between Catholic people and God, Hail Mary, or Jesus Christ. While the appraisal devices are used to know the way Catholic people express the prayers. They are attitude, amplification, source, and speech level. The result is shown in 1) speech functions; speech roles, and 3) the appraisal of Javanese Catholic Daily prayers. As the texts are prayers, the speech functions found in English prayers are giving information and demanding goods and services. The speech roles of Javanese prayers are statements and demands. It is suggested that prayers are good media for teaching languages. By knowing the interpersonal meaning of the prayers, people are able to say the prayers correctly. They will express their statements and demands politely as the addressee is God.*

***Key words: interpersonal meaning, Catholic Prayers, speech function, speech roles, appraisal system***

**INTRODUCTION**

Alip (2003) in his paper “Language and Peace” mentions that “language has assumed as indexical functions. It serves to indicate the speaker’s or the interlocutor’s status in their relation. “A language might serve an in-group language or an out-group language. An in-group language indicates that the speaker wants to show that he or she belongs to the interlocutor’s group. On the other hand, an out-group language indicates that the speaker assumes that the interlocutor does not belong to his or her group. For example, a person speaking “Javanese Ngoko” or low level Javanese to a peer might indicate that this person is of a higher status and is exerting the power to the interlocutor. And a Javanese student might address the lecturer in “Javanese Kromo’ or high level Javanese trying to show respect. For convenience sake, many youngsters prefer speaking Bahasa Indonesia to their fellow Javanese because Bahasa Indonesia is free from indexical function of power and respect. A happy fact perhaps that the government decides Javanese should be taught as a compulsory subject to the students from the elementary to the senior high schools in Central Java.

A text is a unit of a language in use and language is a source for making meaning. A text is regarded as a semantic unit. As a unit of meaning a text contains textual, interpersonal, and ideational meaning. The texts the people use to express their intentions are prayers. The realisation of interpersonal meanings of the prayers is shown in the relation between the Subject and Finite of the clauses, the use of modality, and appraisal words. From this interpersonal meaning, we will know whether people inform something or demand something from God. If people know how the prayers are realized in their interpersonal meaning, they will understand the essence of the prayers much better. When this happens, people will not only say the prayers correctly, they will also learn the language used in prayers. Further, language teachers will be able to teach the students the language through prayers. Besides learning the grammar, the students will learn the lexis used in prayers. For example, in Javanese prayers, the words ‘kawula’, ‘dalem’ are used instead of ‘’kula’, ‘sampeyan’. Such lexical items are used to show that God is powerful and people have to say the prayers politely.

**PURPOSE OF THE STUDY**

This study is aimed at describing ‘the realization of interpersonal meaning found in Javanese Catholic daily prayers

**REVIEW OF RELATED LITERATURE**

To make sense of the interpersonal meanings conveyed by prayers some stages of analysis need to be conducted. First, interpersonal meanings are realized in the structure of the Mood that include the Subject and Finite. Second, Modalities that realise Finite – convey various kinds of attitudes and their intensity. Thus, Modalities will be addressed and used as a basis of analysis. Third, interpersonal meanings are also realised in lexis. In Systemic Functional Linguistics analysis on attitudinal lexis is labeled as appraisal analysis. This analysis is focused on the lexical choices conveying different attitudes with different degrees of intensity.

**MOOD**

There are meanings through which social relations are created and maintained. These meanings are interpersonal meanings which are realised in the Mood.

The realizations of interpersonal meanings are as follows:

* The exchange involves a speaker or a writer and an addressee (listener or reader)

- The speaker has a speech role for her/himself by making statements or asking questions, either in monologue or dialogue, or by demanding.

As a message, the clause is organized as an interactive event between the speaker or writer and the audience or reader. For example, in asking a question, a speaker is taking on the role of the seeker of information and requiring the listener to take on the role of the supplier of the information demanded.

Haliday (1994:69) draws the following table:

Table 1

Speech functions and responses

|  |  |  |  |
| --- | --- | --- | --- |
|  | Initiation | Expected responses | Discretionary alternative |
| Give goods&services  Demand -------“-----------  Give information  Demand ------“------- | offer  command  statement  question | acceptance  undetaking  acknowledgement  answer | rejection  refusal  contradiction  disclaimer |

David Butt, et.al.(1965:66) explain that “the two grammatical features which carry the main burden of interpersonal meanings are the Subject and the Finite. They combine to make the Mood of the clause.”

According to Halliday (1994:76), the Subject is something by reference to which the proposition can be affirmed or denied, while ‘the Finite has the function of making the proposition finite.’

In the exchange of information, the Subject and the Finite are both present. The order of the Subject and Finite in the mood blocks shows whether information is given or demanded. In clauses giving information, the Subject precedes the Finite and the Finite is always present tense. The Mood block is known as Declarative Mood. When the speakers demand information by asking questions and expecting yes/no response, the Mood block is Interrogative Mood. In demanding goods and services, the speakers may give orders or commands. The Mood block is known as Imperative Mood.

**Modality**

Matthiessen (1995:505) clarifies that Modality is the general term for all signs of speaker’s opinion. When the opinion is about probability or usuality, it is known as Modalisation. When the opinion expresses obligation and readiness, it is known as Modulation. The following examples show modality

Modalisation

Probability : He will be at home now

Usuality : He is usually at home on Saturdays

Modulation

Obligation : You should go home now

Readiness : I will go home now

**Appraisal system**

Martin & Rose (2003) define ‘Appraisal is a system of interpersonal meanings. We use the resources of Appraisal for negotiating our social relationships, by telling our listeners or leaders how we feel about things and people.’ The lexicogrammar of interpersonal includes:

- speech functions and the information versus goods and services dichotomy

- the interpersonal functionality of Subject and Finite

- polarity and modality, and interpersonal metaphor

- comment adjuncts

- attitudinal epithets

Further, three dimensions are identified by which social relationships may be organized – power/status, contact and affect. A consistent preference for high values of modals of obligation (*you must/should, it’s necessary that*) and for high values of probability (*definitely, I’m certain that*) are linked with the more powerful speaker in an unequal status relationship. In contrast, a preference for modal values of inclination (I’m keen, I’m willing) and for values of probability (perhaps, may, I guess…) are linked with the less powerful speaker in an unequal status relationship. Likewise, the use of reduced expression forms, colloquial lexis and a diversity of forms of personal address are associated with contexts of higher involvement/contact between interactants.

There are three aspects of appraisal: attitude, amplifications, and source.

Table 2

Basic options for appraisal

|  |  |  |
| --- | --- | --- |
| Attitude | Affect | **envied**  **torn to pieces** |
| Judgement | a **bubbly vivacious** man  **wild energy, sharply intelligent** |
| Appreciation | A **top** security firm  A **beautiful** relationship |
| Amplification | | **sharply** intelligent  **wild** energy |
| Source | | He was **popular** with all the “Boer’Afrikaners and all my girlfriends **envied** me |

Source:Martin&Rose (2003)

**ATTITUDE**

ATTITUDE includes those meanings by which texts/speakers attach an intersubjective value or assessment to participants and processes by reference either to emotional responses or to systems of culturally-determined value systems.

ATTITUDE itself divides onto three sub-systems. The attitude for expressing emotion is affect, the attitude for judging character is judgement, and the attitude for valuing the worth of things is appreciation.

a. **Affect**

Values of affect occur as either positive or negative, such as love – hate, please – irritate. By appraising events in affectual terms, the speaker/writer invites their audience to share their emotional response, or at least to see the response as appropriate and well motivated, or at least understandable.

Martin & Rose (2003) say that ‘People express their feelings in two general ways. First, we can have good feelings or bad feelings, so affect can be positive or negative. Second, people can express their feelings directly, or we can infer how people are feeling indirectly from their behavior, so affect can be expressed directly or implied”

**b. Judgement**

The system of JUDGEMENT encompasses meanings which serve to evaluate human behavior positively or negatively by reference to a set of institutionalized norms. But unlike affect, we find that judgements differ between personal judgements of admiration or criticism and moral judgements of praise or condemnation.

Under Judgement we may assess behaviour as moral or immoral, as legal or illegal, as socially acceptable or unacceptable, as laudable or deplorable, as normal or abnormal and so on.

There are two categories of JUDGEMENT. They are ***social sanction*** and ***social*** ***esteem***. JUDGEMENTS of social sanction involve an assertion that some set of rules or regulation, more or less explicitly codified by the culture, are at issue. Those rules may be legal or moral and hence JUDGEMENTS of social sanction turn on questions of legality and morality. From the religious perspective, breaches of social sanction will be seen as sins. From the legal perspective they will be seen as crimes. JUDGEMENTS of social esteem involve evaluations under which the person judged will be lowered or raised in the esteem of their community, but which do not have legal or moral implications.

**c. Appreciation**

APPRECIATION is the system by which evaluations are made of products and process. Appreciation can be thought of as the system by which human feelings, either positive or negative, towards products, processes and institutionalizes as a set of evaluations. Thus, appreciation typically evaluates texts, such as plans and policies, as well as manufactured and natural objects. Humans may also be evaluated by means of APPRECIATION when viewed more as entities than as participants who behave, such as *a beautiful woman, a key figure.*

Appreciations may be grouped into reactions, composition and valuation.

* + - * Reaction describes the emotional impact of the work on the reader/listener/viewer.
* Composition is textually tuned. It describes the texture of a work in terms of its complexity or detail. The product or process is evaluated according to its makeup, according to whether it conforms to various conventions of formal organization
* Under ‘social value’, the object, product or process is evaluated according to various social cenventions. We would expect that the set of social values which have currency.

**AMPLIFICATION/GRADUATION**

Under amplification/graduation, we are concerned with values which act to provide grading or scaling, either in terms of the interpersonal force which the speaker attaches to an utterance or in terms of the preciseness or sharpness of focus with which an item exemplifies a valuer relationship. There are two kinds of resources for amplification or graduation, force and focus.

**a. Force**

Force is the kind of amplifying to intensify meanings. It is most exemplified by the set of adverbs of ‘intensifiers, amplifiers, and emphatics’, such as *slightly, a bit, somewhat, quite, very, really,* *extremely.*

**b. Focus**

Focus is the kind of amplifying to sharpen or soften the valuer relationship represented by the item. Values at the ‘sharp’ end of the focus scale are exemplified by ‘true’

**SOURCE / ENGAGEMENT**

There are three kinds of sources. They are projection, modality, and concession.

* **Projection** is the relation between someone says and what he said. Projections may quote the exact words that someone said.
* **Modality**, as a resource, can set up a semantic space between yes and no – a cline running between positive and negative poles. There are two kinds of modality, one for negotiating services and the other for negotiating information.

- The conjuncton ‘but’ is used to signal **Concession.**

**LEXIS**

As has been mentioned above, appraisal is a huge resource for constructing communities of feeling, and it is realized through lexis as well as grammar. In other words, lexis is the part of language. Lexis also shows the power of the person participating in the communication as well as the politeness of the language used.

Power in discourse is to do with powerful participate controlling and constrining the contributions of non-powerful participants. According to Fairclaough (1989:46), there are types of constrints:

- contents, on what is said or done

- relations, the social relations people enter into the discourse

- subjects, or ‘the subject position’ people can occupy

Discourse types and orders of discourse vary across cultures. Unequal encounters may happen where the non-powerful people have different cultural and linguistic background from those of powerful people.

**JAVANESE SPEECH LEVELS**

The Javanese language is the spoken language of the people in the central and eastern part of the island of Java. Although not currently an official language anywhere, almost half of the population of Indonesia are of Javanese decent or live in an area where Javanese is the dominant language. Five of six Indonesia presidents since 1945 are of Javanese decent. It is therefore not surprising that Javanese has a deep impact on the development of Bahasa Indonesia, the national language of Indonesia. Javanese is recognized as a regional language in 3 provinces of Java. They are Central Java, Jogyakarta, and East Java. It is taught in schools and is also used in mass media.

Basically, there are three factors which influence the choice of using a certain speech level in Javanese. They are age, social factors and formality. In Javanese, to speak to an elder, a younger person is supposed to show politeness, that is by using a higher level of speech. The use of a higher level of speech is also expected from a person when speaking to the person of a higher social status. The politeness shows how different the social status between the speaker and the addressee. Another factor that influences the use of speech level is formality. If the situation is formal, the speaker is expected to use a higher level of speech, fore example in traditional or cultural meetings.

There are three speech levels or registers in Javanese. They are:

a. Ngoko (informal register)

It is used between friends and close relations. It is also used by persons of higher status to persons of lower status, such as elder to younger people or bosses to subordinates.

b. Madya (polite informal, neutral)

This is an intermedial register that is neither informal nor formal.

If, for example, the speaker is a high school student and the addressee is an old brother, a university student, he is expected to use Madya

c. Krama (polite formal)

A student is expected to use Krama to the teacher. A child also uses Krama to his parents. It is also used between individuals of equal status in a formal situation.

**RESEARCH DESIGN**

This is a descriptive qualitative research as the aim of the study is to describe the interpersonal meaning of English and Javanese Catholic daily prayers. Qualitative research methods were developed in social sciences to enable researchers to study social and cultural phenomena. Qualitative data sources include observation and participant observation (fieldwork), interviews and questionnaires, documents and texts, and the researcher’s impressions ands reactions.

In this research, the focus is on the word-level or appraisal devices since it is based on appraisal systems which are used to search the interpersonal meaning of the prayers. The texts are also analyzed in linguistic system, which is called interpersonal metafunction to know the relation between the speaker and the addressee.

**Object of the Study**

The objects of this research are the daily prayers said by Catholic people. As the objects are written texts, so the data are collected through documents. The daily prayers in Javanese (Sembahyangan Padinan) taken from ‘Padupan Kencana’(1977) consist of Rama Kawula, Sembah bekti, Mugi Linuhurna, mBangun Keduwung, mBangun Pangarep-arep, mBangun Katresnan.

**Units of Analysis**

In analyzing the Catholic daily prayers, Systemic Functional linguistics and the Appraisal Systems are applied. The units of analysis are clause, modality and appraisal devices.

As stated above, the texts are firstly analyzed on clause-complex. Here the researcher focuses on the analysis of the interpersonal meaning to know the relation between the speaker and the addressee. The interpersonal metafunction consists of Mood (Subject + Finite) and its polarity, or its modality. Secondly, the prayers are analyzed on word-level. In this analysis, the researcher will see how the appraisal devices are used in these prayers. This includes how they present their attitudes toward the phenomenon, how they amplify the presentation of the attitudes, and how they get the sources.

**Data Analysis**

**Analysis of the prayers based on Interpersonal Meaning**

Halliday analysed lexicogrammar into three broad metafunctions: ideational, interpersonal, and textual. In each metafunction an analysis of a clause gives a different kind of structure composed from a different set of elements. In the ideational metafunction, a clause is analysed into Process, Participants and Circumstances, with different types for different process types. In the interpersonal metafunction, a clause is analysed into Mood and Residue, with the mood element further analysed into Subject and Finite. In the textual metafunction, a clause is analysed into Theme and Rheme.( [www.ling.helsink1.6/kit/2001s/CH](http://www.ling.helsink1.6/kit/2001s/CH) 32 Ogen/GW-MSc.Thesis/node 16 html).

In line with the title of this thesis, the analysis of the prayers is based on interpersonal meaning, so the following interpersonal metafunction layer will be used

|  |  |  |
| --- | --- | --- |
| Subject | Finite | Complement/Adjunct |
| Mood | | Residue |

**Analysis of the prayers based on Appraisal Systems**

The analyses are done depending on the kinds of attitude, amplification, and the source.

a. Analysis of Texts based on Systems of Attitude

Attitude includes those meanings by which the texts/speakers attach an intersubjective value or assessment to participants and processes by reference either to emotional responses or to systems of culturally-determined value systems. Attitude itself is divided into three sub-systems, they are Affect, Judgement and Appreciation.

1) Affect

People express their feelings in two general ways. First, we can have good and bad feelings, so affect can be positive or negative. Second, people can express their feelings directly and indirectly (implied)

**Options for affect**

|  |  |
| --- | --- |
| positive | |
| Negative | |
| Direct | emotional state |
| physical expression |
| Implicit | extraordinary  behavior |
| metaphor |

2). Judgement

Judgement serves to evaluate human behaviour, it differs between personal judgements of admiration or criticism and moral judgements of praise or condemnation.

The system of JUDGEMENT

|  |  |  |
| --- | --- | --- |
| **Social Esteem** | positive [admire] | negative[criticize] |
| **Normality** (custom)  ‘is the person’s behaviour unusual, special, customary? |  |  |
| **Capacity**  ‘is the person competent, capable?’ |  |  |
| **Tenacity** (resolve)  ‘is the person dependable, well disposed?’ |  |  |
|  |  |  |
| **Social Sanction** | positive [praise] | negative [condemn] |
| **Veracity** (truth)  ‘is the person honest?’ |  |  |
| **Propriety** (ethics)  ‘is the person ethical, beyond reproach? |  |  |

3). Appreciation

APPRECIATION is the system by which evaluations are made of products and process. Appreciation can be grouped into reactions, composition and valuation.

Types of appreciation

|  |  |  |
| --- | --- | --- |
|  | positive | Negative |
| **reaction** : impact  ‘did it grab me?’  **reaction:** quality  ‘did I like it?’ |  |  |
| **composition:**balance  ‘did it hang together’  **composition:**complexity  ‘was it hard to follow?’ |  |  |
| **Valuation**  ‘was it worthwhile?’ |  |  |

b. Analysis of Texts based on Amplification/Graduation

There are two kinds of resources for amplification or graduation, force and focus.

1) Force

Force is the kind of amplifying to identify meanings. The adverbs of ‘intensifiers, amplifiers, and emphatics’ are used; for example slightly, extremely, etc

2) Focus

Focus is the kind of amplifying to sharpen or soften the relationship represented by the item. The term like ‘kind of, as good as’ are used.

The system of Graduation

|  |  |  |
| --- | --- | --- |
| Force | Implicit  Explicit | Intensifiers  Attitudinal lexis  Metaphor  Swearing |
| Focus | Sharpen  Soften |  |

c. Analysis of Texts based on Source

There are three kinds of sources, they are projection, modality, and concession.

1. Projection is the relation between someone says and what he said
2. Modality can set up a semantic space between yes and no – between positive and negative poles. There are two kinds of modality, one for negotiating services and the other for negotiating information
3. Concession is signaled by the conjunction ‘but’

The system of Source

|  |  |  |
| --- | --- | --- |
| Projection | | |
| Modality | Demand | Positive  Negative |
| Information | Positive  Negative |
| Concession |  | |

**Research Findings**

This chapter deals with the research findings and discussions. They are the results of the analysis done in the viewpoints of speech functions, modality, and appraisal systems of the Catholic daily prayers.

There are six Javanese Catholic daily prayers being analyzed to know the interpersonal meaning of the prayers. First, the texts are analyzed to know the speech functions and the modality of text. The second analysis was done to show the interpersonal meaning of the texts from the point of view of the appraisal system of the lexis.

**The realization of Interpersonal Meaning in Javanese Catholic daily prayers** The realization of Interpersonal Meaning in Javanese Catholic daily prayers are done in the following ways:

**a. from the point a view of speech functions**

Table 3

Analysis of the texts based on Speech Functions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| KINDS OF TEXTS | SPEECH FUNCTIONS | | SUMS OF ANALYZED ITEMS | |
| RAMA KAWULA | Give  goods & services | Offer - acceptance | - | |
| Demand  Goods & services | command – undertaking | 2 | |
| Give  information | statement - acknowledgement | 3 | |
| Demand  information | question –  answer | - | |
| SEMBAH BEKTI | Give  goods & services | Offer - acceptance | - | |
| Demand  Goods & services | command – undertaking | 1 | |
| Give  information | statement - acknowledgement | 3 | |
| Demand  information | question –  answer | - | |
| MUGI LINUHURNA | Give  goods & services | Offer - acceptance | - | |
| Demand  Goods & services | command – undertaking | - | |
| Give  information | statement - acknowledgement | 1 | |
| Demand  information | question –  answer | - | |
| mBANGUN  KEDUWUNG | Give  goods & services | Offer - acceptance | - | |
| Demand  Goods & services | command – undertaking | 1 | |
| Give  information | statement - acknowledgement | 2 | |
| Demand  information | question –  answer | - | |
| mBANGUN  PENGAREP-AREP | Give  goods & services | Offer - acceptance | - | |
| Demand  Goods & services | command – undertaking | 1 | |
| Give  information | statement - acknowledgement | 2 | |
| Demand  information | question –  answer | - | |
| mBANGUN  KATRESNAN | Give  goods & services | Offer - acceptance | - | |
| Demand  Goods & services | command – undertaking | 1 | |
| Give  information | statement - acknowledgement | 2 | |
| Demand  information | question –  answer | - | |
| The sums |  | | 13 | 6 |

The prayer ‘Rama Kawula’ was actually written by a father – he is Father van Lith. He is the first father who came to Muntilan, Central Java. He wrote the prayer in Javanese in order to gather the Catholic people there.

In ‘Rama Kawula’, Catholic people state that Father is very honorable (*Rama/Asma Dalem kaluhurna*). They also state that Father as a King stays in Heaven (*Kraton Dalem*), and He has the power in Heaven (*ing Swarga*) as well as in Earth (*ing Donya*).

In this prayer, catholic people demand God to give daily bread (*rejeki*), and forgive their sins (*lepat*). Catholic people also ask ‘*Rama*’ not to lead them into temptation (*tinehbihna saking panggodha*) and deliver them from the evil (*linuwarna saking piawon*).

In the prayer ‘Sembah Bekti’, Catholic people acknowledge Holy Mary by saying ‘Sembah bekti kawula, Dèwi Maria, kekasihing Allah’. Catholic people also state that among women, Holy Mary is blessed and praised and (*sami-sami wanita Sang Dèwi pinuji piyambak*), and is blessed the fruit of the womb, Jesus (*saha pinuji ugi wohing salira Dalem, Jesus*). Here, Catholic people demand Holy Mary to pray for them now and forever (*Dèwi Maria, ibuning Allah, kawula tiyang dosa sami nyuwun pangèstu dalem, samangké tuwin bénjing dumugining pejah*).

Catholic people hallow the Trinity by saying the prayer ‘Mugi Linuhurna’. Here, they inform that they believe in God, the Son and the Holy Spirit (*Mugi linuhurna Hyang Rama, saha Hyang Putra, tuwin Roh Suci*).

In mBangun Keduwung, Catholic people state that they are remorseful for their sins (*keduwung dhateng sadaya dosa kawula*). Therefore, as the sinners, Catholic people state that with the help of God they will not do sins again (*Kawula gadah niyat, srana sih pitulungan Dalem boten badhé nglampahi dosa malih*). As sinners, they demand God to amend their lives (*Gusti, kawula tiyang dosa nyuwun kawelasan Dalem*).

In mBangun Pengarep-arep, Catholic people state that God is very good (*Allah, ingkang Maha Saé*), and because of the merits of Jesus Christ, they hope that they will get everlasting lives (*kawula gadah pengageng-ageng bade nampi saking sampéyan Dalem kamulyan langgeng*). Catholic people ask God to strengthen their hopes (*Gusti, kawula aturi nyantosoaken pengajeng-ajeng kawula*).

God hopes that people always love each other. Catholic people say that they love God above all things (*Gusti, Allahing katresnan, kawula tresna ing Sampéyan Dalem ngungkuli samukawis*). In the prayer ‘mBangun Katresnan’, Catholic people say that they love God, and they also love others as they love themselves (*Margi kawula ugi tresna dhateng sesame kados dhateng badan kawula piyambak*). Catholic people ask God to pay attention to their loves (*Gusti, kawula aturi tansah ngindahaken katresnan kawula*).

**b. from the point of view of Speech Role/Mood and Modality**

In Javanese, the speech role is indicated by the predicate, as the main construction, accompanied by subject and/or object, and the semantic role of the subject (as mentioned in the preceding chapter-chapter II) can be as *pelaku, sasaran, pengalam, peruntung, or attribut*.

Table 4

Analysis of the texts based on Speech Role and Modality

|  |  |  |  |
| --- | --- | --- | --- |
| KINDS OF TEXT | SPEECH ROLE | MODALITY | SUMS OF THE ANALYSIS ITEMS |
| RAMA KAWULA | Statement | - | 3 |
| Demand | - | 2 |
| SEMBAH BEKTI | Statement | - | 3 |
| Demand | - | 1 |
| MUGI LINUHURNA | Statement | - | 1 |
| Demand | - | 1 |
| mBANGUN KEDUWUNG | Statement | 1 | 2 |
| Demand | - | 1 |
| mBANGUN PENGAREP-AREP | Statement | 1 | 2 |
| Demand | - | 1 |
| mBANGUN KATRESNAN | Statement | - | 2 |
| Demand | - | 1 |
| Sums |  | 2 | 13 8 |

Table 11 shows the speech roles and modality of the prayers. The speech roles are either statements or demands. Here, Javenese Catholic People are the speakers and the addressee is God, Jesus Christ, or Hail Mary.

The speech role is indicated by the Subject and the Predicate. The order of Subject and Predicate shows whether information is given or demanded. In clauses giving information, the Subject precedes the Predicate, while in demanding goods and services, the speakers may give orders or commands.

In ‘Rama Kawula’, the information given is as follows:

* *Rama kaluhurna* (Catholic People hallow the Father)
* *Kraton Dalem mugi rawuh* (The Kingdom come)
* *Karsa Dalem kalampahan* (Thy Will be done)

As the addressee is God, Javanese people will not give order although they demand goods or services. They will say :

* *Kawula nyuwun rejeki* (Give us daily food/bread)
* *Kawula nyuwun pangapunten* ( forgive us our trespasses).
* *Kawula nyuwun tinebihna saking panggoda*(lead us not into temptation)

In ‘Sembah Bekti’, the information stated in this prayer is:

*Sembah bekti kawula Dèwi Maria* (Hail Mary is full of grace)

* *Pangéran nunggil ing panjenengan dalem* ( Lord is with thee)
* *Sang Dèwi pinuji piyambak, saha pinuji ugi wohing salira Dalem,Sri Yesus* ( Holy Mary is blessed, and the fruit of the womb, Jesus, is also blessed.

The demand of the Catholic people is

* *nyuwun pangestu dalem* ( pray for them)

In ‘Mugi Linuhurna’, the statement given is as follows:

* *Mugi linihurna Hyang Rama, Saha Hyang Putra tuwin Roh Suci* ( Glory be the Father, the Son, and Holy Spirit)

In ‘mBangun Keduwung’, Catholic people state

- *kawula keduwung dhateng sadaya dosa kawula* ( I am heartily sorry for having offened Thee)

- *kawula gadhah niyat, srana sih pitulungan Dalem* *boten badhé nglampahi dosa malih* (with the help of God they will not do sins again). The modality found in this clause is readiness. It shows that Catholic people ‘*gadah niyat*…’

In ‘mBangun Pengarep-arep’, Catholic people state that ‘*Allah, ingkang Maha Saé*’ (God is very good), and because of the merits of Jesus Christ; they say ‘*kawula gadah pengajeng-ajeng badé nampi saking Sampéyan Dalem: kamulyan langgeng*’ (they hope that they will get everlasting lives). Catholic people ask ‘*Gusti, kawula aturi nyantosakaken pengajeng-ajeng kawula’*

( Catholic people ask God to strengthen their hope). The modality found is ‘probability’. It shows that Catholic people ‘…*pengajeng-ajeng*…’

God hopes that people always love each other. Catholic people say ‘*Gusti Allahing katresnan, kawula tresna ing Sampéyan Dalem ngungkuli samukawis’* ( they love God above all things ). *Margi kawula tresna dhateng Sampéyan Dalem, kawula ugi tresna dhateng esame kados dhateng badan kawula piyambak* (And as they love God, they also love others as they love themselves). They ask ‘*Gusti, kawula aturi tansah ngindahaken katresnan kawula*’ ( They ask God to pay attention to their love).

**c. from the point of view of appraisal systems.**

The Javanese Catholic prayers are also analyzed in their appraisal systems since Javanese Catholic People want to tell the listeners or readers how they express their feelings, statements or demands to God, Hail Mary, or Holy Spirit. Similar to the analysis of English Catholic Prayers, the Javanese Catholic prayers are analyzed into attitude, amplification/graduation, and source.

Table 5.a

The appraisal system of ‘Rama Kawula’

|  |  |  |
| --- | --- | --- |
| Lexis | Affect  - positive  - negative  - direct  -implicit | 2 points  3 points  -emotional state(2 points)  -physical expression (2 points)  -extraordinary behavior(0 point)  -metaphor (0 point) |
| Judgement  -normality  -capacity  -tenacity  -veracity  -propriety | - (+)  - (0)  - (0)  - (-)  - (0) |
| Appreciation  -reaction  -composition  -valuation | -impact (+,-)  -quality (+)  -balance (+)  -complexity (0)  (0) |
| Graduation  -force  -focus | -implicit(\*)  -explicit (0)  -sharpen (0)  -soften (\*) |
| Source  -projection  -modality  -concession | (\*)  -demand(+,-)  - information (+)  (0) |

Notes: (+) positive (-) negative (0) no expression (\*) with expression

In ‘Rama Kawula’, Catholic people state their prayer in 2 (two) statements that show positive affect. They are:

* *Rama kawula ….. kaluhurna*
* *Kraton ….. rawuha*

Catholic people express negative affect by the following lexis:

* *sakathaing lepat nyuwun pangapunten Dalem*

*- Kawula nyuwun tinebihna saking panggodha*

*- linuwarna saking piawon*

Catholic people express direct affect in two ways. They are:

1) emotional state : - *nyuwun pangapunten*

*- kawula ugi ngapunten*

2) physical expression : - *tinebihna saking panggodha*

*- linuwarna saking piawon*

In ‘Rama Kawula’, Catholic people judge God in positive normality and negative veracity in the following expressions:

1) positive normality: - *Rama kawula ….*

*- ….. rejeki Kanggé sapunika*

2) negative veracity : - *sakathaing lepat ….. panggodha*

Catholic people showds their appreciation in impact reaction and quality reaction. Impact reaction consist of positive and negative.

1) positive impact : - *kaluhurna*

*- rawuha*

*- kalampahan*

2) negative impact: - *sakathaing lepat ….. panggodha*

And quality reaction is shown in – *Karsa Dalem kalampahan*

*- kados ing swarga*

Appreciation is also expressed in positive composition-balance:

- *donya kados ing swarga*

*- ….. kados déné anggèn*

There are two kinds of graduation.,They are force and focus. In ‘Rama Kawula’, Catholic people show the implicit force in

1. intensifier : *sakathaing lepat*
2. attitudinal lexis : *Asma Dalem kaluhurna*

while in focus, the graduation is softened : *- nyuwun pangapunten*

*- mugi rawuha*

The source in ‘Rama Kawula’ is found in projection and modality. In Rama Kawula, modality is shown in positive and negative demand, and positive information.

1) projection : *Kraton Dalem mugi rawuha*

2) Catholic people express their positive demand, such as follows:

- *kawula nyuwun ….. sapunika*

*- sakathaing lepat ….. sesami*

*- kawula nyuwun ….. panggodha*

3) And the negative demand : *linuwarna …..piawon*

While the positive information is : **-** *Rama ….. rawuha*

*- Karsa Dalem ….. swarga*

Table 5.b

The appraisal system of ‘Sembah Bekti’

|  |  |  |
| --- | --- | --- |
| Lexis | Affect  - positive  - negative  - direct  -implicit | 1 point  1 point  -emotional state(1 point)  -physical expression (1 point)  -extraordinary behavior(2 points)  -metaphor (2 points) |
| Judgement  -normality  -capacity  -tenacity  -veracity  -propriety | - (+)  - (0)  - (0)  - (0)  - (0) |
| Appreciation  -reaction  -composition  -valuation | -impact (0)  -quality (+,-)  -balance (+)  -complexity (0)  (0) |
| Graduation  -force  -focus | -implicit(\*)  -explicit (0)  -sharpen (\*)  -soften (\*) |
| Source  -projection  -modality  -concession | (0)  (+)  (+)  (0) |

Notes: (+) positive (-) negative (0) no expression (\*) with expression

Catholic people affect Holy Mary by the following statements to show

1) positive affect : - *Sembah bekti ….. Sri Yesus*

2) negative affect : - *kawula tiyang dosa*

3) direct affect, which is expressed by

- emotional state: - *sembah bekti*

- physical expression: *nyuwun pangèstu*

4 implicit affect occurs both in extraordinary behavior and metaphor:

a) extraordinary behavior: - *nunggil …..*

*- pinuji piyambak*

b) metaphor : - *kekasihing Allah*

*- wohing salira…..ibuning Allah*

Catholic people judge Holy Mary in social esteem and social sanction. In social esteem, Catholic People judge Holy Mary in positive normality :*’Sembah bekti ….. pejah*

The appreciation of Catholic people occurs in positive and negative quality, positive balance composition

1) positive quality reaction: - *pinuji piyambak*

2)negative quality reaction:- *dumugining pejah*

3) positive balance composition : - *sami-sami wanita*

*- pinuji ugi wohing*

The graduation of Catholic people is shown in force and focus. The graduation is expressed in implicit force through:

1) intensifiers : - *Sembah Bekti kawula*

2) attitudinal lexis :- *Pinuji piyambak*

3) metaphor : - *kekasihing Allah*

4) swearing : - *wohing salira*

*- Ibuning Allah*

As mentioned before, graduation is also shown in focus. The focus is used to sharpen and soften the values of Catholic people

1) sharpen : *- sembah bekti*

*- kekasihing*

*- pinuji piyambak*

2) soften : *- nyuwun pangestu*

*- sami-sami wanita*

Source of the prayer ‘Sembah Bekti is described in modality. It is shown in positive demand and positive information:

1) positive demand : - *nyuwun pangestu dalem*

2) positive information : - sembah bekti

- Pangéran nunggil

Table 5.c

The appraisal system of ‘Mugi Linuhurna’

|  |  |  |
| --- | --- | --- |
| lexis | Affect  - positive  - negative  - direct  -implicit | 0 point  0 point  -emotional state(1 point)  -physical expression (0 point)  -extraordinary behavior(0 point)  -metaphor (0 point) |
| Judgement  -normality  -capacity  -tenacity  -veracity  -propriety | - (+)  - (0)  - (0)  - (0)  - (0) |
| Appreciation  -reaction  -composition  -valuation | -impact (0)  -quality (0)  -balance (+)  -complexity (0)  (0) |
| Graduation  -force  -focus | -implicit(\*)  -explicit (0)  -sharpen (\*)  -soften (\*) |
| Source  -projection  -modality  -concession | (0)  (+)  (0)  (0) |

Notes: (+) positive (-) negative (0) no expression (\*) with expression

In ‘Mugi Linuhurna’ Catholic people state direct affect:

1) emotional state : - *Mugi Linuhurna*

In ‘Mugi Linuhurna’, judgement is only stated in positive normality as it is expressed in “*kados ing mulabuka*’ . ‘*kados ing mulabuka*’ also shows the appreciation in positive composition – balance .

Graduation of ‘Mugi Linuhurna’ occurs in force and focus. Implicit force is stated by the intensifier: *Mugi ….. kados ing mulabuka*’. To sharpen the focus, Catholic people say ‘*Hyang Rama, Hyang Putra’*, and to soften the graduation, Catholic people say ‘*Mugi Linuhurna’*

Source of ‘Mugi Linuhurna’ is modality. Catholic people say the prayer is in positive demand ‘*Mugi Linuhurna ….laminipun’*

Table 5.d

The appraisal system of ‘mBangun Keduwung’

|  |  |  |
| --- | --- | --- |
| Lexis | Affect  - positive  - negative  - direct  -implicit | 2 points  3 points  -emotional state(2 points)  -physical expression (2 points)  -extraordinary behavior(0 point)  -metaphor (0 point) |
| Judgement  -normality  -capacity  -tenacity  -veracity  -propriety | - (+)  - (0)  - (0)  - (-)  - (0) |
| Appreciation  -reaction  -composition  -valuation | -impact (+,-)  -quality (+)  -balance (+)  -complexity (0)  (0) |
| Graduation  -force  -focus | -implicit(\*)  -explicit (0)  -sharpen (0)  -soften (\*) |
| Source  -projection  -modality  -concession | (0)  (+)  (+,-)  (0) |

Notes: (+) positive (-) negative (0) no expression (\*) with expression

In ‘mBangun Keduwung’, Catholic people state the prayer is in positive, negative, direct, as well as implicit affect:

1) positive affect : *kawula keduwung dhateng sadaya dosa kawula*

*Kawula gadhah niyat*

2) negative affect : - *boten badhé nglampahi dosa malih-malih*

3) direct affect is shown in emotional state:

- *kawula keduwung dhateng*

4) implicit affect is shown in extraordinay behavior:

- *srana sih*

*- gadhah niyat*

Judgement in ‘mBangun Keduwung”occurs in social esteem. In social esteem Catholic people judge in positive and negative normality

1) positive normality : - *Maha Saé*

2) negative normality: - *kawula tiyang dosa*

In ‘mBangun Keduwung’, Catholic people appreciate in negative impact reaction and positive quality reaction.

1) negative reaction : - *boten badhé nglampahi dosa malih-malih*

2) positive reaction: - *Allah ingkang Maha Saé*

Graduation of ‘mBangun Keduwung’ occurs in force and focus. Catholic people graduate their prayer in implicit force which is expressed by intensifiers. The focus exists to soften the graduation:

1) implicit-intensifier : - *kawula keduwung dhateng sadaya dosa kawula*

2) focus –soften : - *gadhah niyat*

- *boten badhé nglampahi dosa malih-malih*

The source of ‘mBangun Keduwung’’ is shown by the modality in positive demand, positive and negative information.

1) positive demand : - *kawula tiyang dosa nyuwun kawelasan Dalem*

2) positive information : *Allah ….. Dalem*

Negative information : Kawula *gadhah niyat* …..*boten badhé nglampahi dosa malih-malih*

Table 5.e

The appraisal system of ‘mBangun Pengarep-arep’

|  |  |  |
| --- | --- | --- |
| Lexis | Affect  - positive  - negative  - direct  -implicit | 1 point  0 point  -emotional state(0 point)  -physical expression(0 point)  -extraordinary behavior(0 point)  -metaphor (0 point) |
|  | Judgement  -normality  -capacity  -tenacity  -veracity  -propriety | - (+)  - (0)  - (0)  - (0)  - (+) |
|  | Appreciation  -reaction  -composition  -valuation | -impact (+)  -quality (-)  -balance (+)  -complexity (+)  (0) |
|  | Graduation  -force  -focus | -implicit (\*)  -explicit (0)  -sharpen (0)  -soften (\*) |
|  | Source  -projection  -modality  -concession | (0)  -demand (+)  -information (+)  (0) |

Notes: (+) positive (-) negative (0) no expression (\*) with expression

Catholic people state the prayer ‘Mbangun Pengarep-arep’ in positive affect

1) positive affect : - Allah …..kawula

- Anggèn……Dalem

Judgement of ‘Mbangun Pengarep-arep’ occurs in social esteem and social sanction. In social esteem, Catholic people judge ‘mBangun Pengarep-arep’ by positive normality and in social sanction, Catholic people express the prayer in positive propriety:

1) positive normality : - langgeng

2) positive propriety : - **-** Maha Saé

Catholic people appreciate God by the positive and negative reaction, and positive composition:

1) positive reaction– impact : **-** Maha Saé

- Kanjeng Gusti

2) positive composition- balance : awit Sampéyan Dalem ingkang sagah

3) positive composition-complexity: - Allah ……Kristus

- tuhu temen ing kasagahan

Graduation of ‘mBangun pengarep-arep’ can be found in force and focus. Catholic people graduate implicitly by attitudinal lexis : - Sampéyan Dalem ingkang sagah

- tuhu temen

They also graduate by softening the expression: - gadah pengajeng-ajeng

The source of ‘mBangun Pengarep-arep’ is modality. The modality shows the positive demand and positive information:

1. positive demand : kawula aturi nyantosakaken pengajeng-ajeng kawula

2) positive information: **-** Allah ….. kawula

- Anggèn ….. kawula

Table 5.f

The appraisal analysis of ‘mBangun Katresnan’

|  |  |  |
| --- | --- | --- |
| Lexis | Affect  - positive  - negative  - direct  -implicit | 1 point  2 points  -emotional state(2 points)  -physical expression(0 point)  -extraordinary behavior(2point)  -metaphor (1 point) |
|  | Judgement  -normality  -capacity  -tenacity  -veracity  -propriety | - (0)  - (0)  - (+,-)  - (+)  - (0) |
|  | Appreciation  -reaction  -composition  -valuation | -impact (-)  -quality (+)  -balance (+)  -complexity (+)  (0) |
|  | Graduation  -force  -focus | -implicit (\*)  -explicit (0)  -sharpen (0)  -soften (\*) |
|  | Source  -projection  -modality  -concession | (0)  -demand (0)  -information (+)  (0) |

Notes: (+) positive (-) negative (0) no expression (\*) with expression

In ‘mBangun Katresnan’ Catholic people express the prayer in positive, direct, and implicit affect:

1) positive affect :- Gusti ….. tresnani

2) direct affect-emotional state :- kawula tresna

- kawula ugi tresn

3 implicit affect-extraordinary behavior: - Gusti Allahing ktresnan

- ngungkuli samukawis

4 implicit affect- metaphor : - gumolonging manah

Judgement of ‘mBangun Katresnan’ can be found in positive capacity and positive veracity:

1 ) positive capacity : - *ngungkuli*

2) positive veracity : - *Saé*

*- pantes*

Catholic people appreciate in the ‘ mBangun Katresnan’ through positive reactionan and positive composition:

1) positive reaction – impact : - *Allahing katresnan*

*- Maha-Saé*

2) positive reaction - quality : - *ngungkuli samukawis*

*- gumolonging manah*

3) positive composition-balance : - *awit Sampéyan Dalem punika Maha-Saé*

- *tresna datheng sesami kados datheng badan kawula piyambak*.

4) positive composition-complexity: - *sakelangkung pantes sanget dipun tresnani*

The graduation in ‘mBangun Katresnan’ occurs in force and focus. Catholic people show:

1) the implicit force by intensifier : *kawula tresna ing Sampéyan Dalem ngungkuli samukawis*

2) **t**he focus is sharpened by the following expression:

- *ngungkuli samukawis*

*- sakelangkung pantes sanget dipun tresnani*

The source of ‘mBangun Katresnan’ is expressed by modality in positive demand and information

1) positive demand: **-** *kawula ugi tresna datheng sesame kados datheng badan kawula piyambak*

* *kawula aturi tansah ngindahaken katresnan kawula*

2) positive information: *Gusti …..tresnani*

**4. The realization of Javanese Catholic prayers**

The analysis of the prayers is based on their speech functions, speech roles, and lexis.

The types of speech functions in Javanese Catholic Prayers are giving and demanding. There are 13 items of giving information. Here, Catholic people want to acknowledge God as *Rama*, Holy Mary as *Ibuning Allah* and Jesus Christ as *Hyang Putra.*

The examples of the information are as follows:

- Rama kawula ing swarga, Asma Dalem kaluhurna ( in ‘Rama Kawula’ )

- Pangéran nunggil ing panjenengan dalem ( in ‘Sembah Bekti’ )

- Mugi linihurna Hyang Rama, saha Hyang Putra tuwin Roh Suci ( in ‘Mugi Linuhurna’ )

Besides statements, Catholic people also express the prayers by demanding, either goods or services, for example ‘Kawula nyuwun rejeki kanggé sapunika’ ( in ‘Rama Kawula’), and in demanding services, such as ‘kawula aturi tansah ngindahaken katresnan kawula’ (in ‘mBangun Katresnan). Modality occurs in two prayers, ‘probability –pengajeng-ajeng’ ( in ‘mBangun pengarep-arep’) and ‘readiness- gadah niyat’ (in ‘mBangun Keduwung’).

In appraisal systems, affects always occur in Javanese Catholic Prayers, although there are a few in ‘Mugi Linuhurna’ and ‘mBangun Pengajeng-ajeng’. The examples of affects are as follows:

- kawula keduwung dhateng sadaya dosa kawula (in ‘mBangun Keduwung’)

- kawula tiyang dosa ( in ‘Sembah Bekti’)

Judgement in Javanese Catholic Prayers is rarely expressed ; for examples:

- ‘Rama kawula …..’ (normality judgement in ‘Rama kawula’)

- ‘kados ing mulabuka’ (veracity judgement in ‘Mugi Linuhurna)

Appreciation is expressed both in reaction and in composition. For examples:

- Allah ingkang Maha Saé (quality reaction – in ‘mBangun keduwung’)

- awit Sampéyan Dalem ingkang sagah (balance composition – in ‘mBangun pengarep-arep)

Intensifiers in force and soften in focus mostly occur in the graduation of Javanese Catholic Prayers, such as:

- sakathaing lepat (intensifier in force graduation – in ‘Rama Kawula’)

- nyuwun pangapunten ( softened focus graduation in ‘Rama Kawula’)

Source of Javanese Catholic Prayers exists both in demand and information, for example:

- kawula aturi nyantosakaken pengajeng-ajeng kawula ( demand in ‘mBangun Pengarep-arep)

- Allah ….. kawula ( information in ‘mBangun Pengarep-arep)

**CONCLUSIONS**

Based on the findings, it is concluded as follows:

1 The types of speech function found in Catholic Daily Prayers are giving information and demanding goods and services. So, the speech roles which occur in those prayers are statements and demands. The appraisal systems of the prayers are shown in affects, judgements, appreciations, graduations and sources

2 Giving information and demanding goods and services occur in the analysis. Therefore, the speech roles are statements and demands. (See appendix 2). The analysis of the prayers based on the appraisal systems shows that the lexis of Javanese prayers covers affects, judgements, appreciations, graduations and sources.(see appendix 3)

**BIBLIOGRAPHY**

Butt, David, et al. 1995. *Using Functional grammar: An Explorer’s Guide*. Sydney: Macquairie University Press.

Eggins S. 1994. *An Introduction to Systemic Functional Linguistics*. London: Pinter Publisher.

Fairclough,N. 1989. *Language and Power*. London: Longman Group Ltd.

----------------. 1992*. Discourse and Social C*hange. Cambridge: Polity Press

----------------.1995. *Critical Discourse Analysis: The Critical Study of Language*. London: Longman Group Ltd.

Halliday,M.A.K.1978. *Language as Social Semiotic: The Social Interpretation of Language and Meaning*. London: Edward Arnold

-------------------.1985. *Spoken and Written Language*.Vivtoria: Deakin University

-------------------.1994. *An Introduction to Functional Grammar.* New York: St.Martin’s Press. Inc.

Halliday,M.A.K. and C.M.I.M.Matthiessen. 1999. *Construing Experience Through Meaning: A Language-based Approach to Cognition*. London: Continuum

Halliday,M.A.K. and R. Hasan. 1976. *Cohesion in English*. Longman Group Ltd.

--------------------------------------. 1985*. Language, Context, and Text: Aspects of Language in a Social-semiotic Perspective.* Melbourne: Deakin University Press.

Hasan Alwi,dkk. 1998. Tata Bahasa Baku Bahasa Indonesia. Jakarta: Balai Pustaka.

Martin,J.R. 1992. *English Text: System and Structure*. Philadelphia: John Benjamins Publishing Company

Martin,J.R. et.al. 1997. *Working with Functional Grammar*. London: Arnold.

Martin,J.R. and D.Rose. 2003. *Working with Discourse: Meaning Beyond the clause*. Sydney

Matthiessen C.M.I.M. 1995. Lexicogrammatical Cartography: English Systems. Tokyo: International Language Sciences Series

Mc, Carthy, Michael and Ronald Carter. 1994. *Language as Discourse*. Perspectives for language teaching. Longman Group Ltd.

Miller, Tom. 1997. *Functional Approaches to Written Text*. Classroom Applications. Washington DC.

Nunan, David. 1992. *Research Methods in Language Learning*. Cambridge University Press.

Palmer,FR. 1986. *Mood and Modality*. New York: Cambridge University Press.

Robson, Stuart and Singgih Wibisono. 2002. *Javanese English Dictionary*. Hongkong Periplus Edition (HK) Ltd.

Schriffrin, Deborah. 1994. *Approaches to Discourse*. USA: Blackwell Publishers.

Stubbs, Michael. 1983. *Discourse Analysis*. *The sociolinguistics Analysis of Natural Language*. Chicago :The University of Chicago Press.

Sudaryanto. 1991. *Tata Bahasa Baku Bahasa Jawa*. Yogyakarta: Duta Wacana University PressSwales, Michael. 1983. *Genre Analysis*. Cambridge University Press.

White, PR. 2001. *Appraisal: An overview*. Available at:http//www.grammatics.com/

Appraisal/Appraisal Guide// (June 4, 2004)

------------. 1977. Padupan Kencana. Yogyakarta: Penerbit Kanisius

http//www.catholictradition.org/prayers/htm

http//www.ling.helsinki.6/kit/2001s/CH 31 ogen/GW-MSc.thesis/node 16 html