

## SPEECH LEVELS, SOCIAL PREDICATES AND PRAGMATIC STRUCTURE IN BALINESE: A LEXICAL APPROACH

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### Abstract

This paper will account for the interaction between syntax and semantics/pragmatics in the speech styles of Balinese. The analysis makes use of an explicit representation that accounts for the co-occurrence restrictions on linguistic expressions which are imposed by social information associated with the speech-level system. It is proposed that social information be treated in terms of social predicates and modelled using LFG-style parallel structures. The social predicates are contained in what is called pragmatic-structure (*prag-str*). It is demonstrated that this approach can account for the plain as well as the (dis)honouring use of linguistic forms in Balinese.

**Keywords:** Implicature, Pragmatic structure, Politeness, Pragmatic agreement, Pragmatic consistency, Speech levels, Social predicate.

### 1. Introduction<sup>1</sup>

One cannot speak Balinese without knowing the relative social status of speech participants. Therefore, when two strangers begin a conversation, one of the opening questions in Balinese is *Nunas antuk linggih?* ‘What is (your) social position?’ (lit. ‘(I) beg your position’). The expected answer is *Tiang anak jaba* ‘I am a commoner’ or *Tiang menak* ‘I’m a *menak* person’. (*Menak* is a term for medium and high castes.) Such an answer allows the speaker to choose the appropriate register, *basa lumrah* (low register) or *basa alus* (high register). As we shall see later, low and high register words form sets of suppletive (morphologically unrelated) forms (see section 4).

One of the challenges in analysing the Balinese speech-level system is how to make a precise formulation of the syntax-semantics-pragmatics connection subject to certain pragmatic constraints and implicatures associated with the system. In this paper, I accept this challenge. I propose that social information be treated in terms of social predicates and modelled using Lexical Functional Grammar (LFG) parallel structures (Bresnan 2001; Dalrymple 2001; Falk 2001, and others). The social predicates are contained in what I call pragmatic-structure (*prag-str*). I demonstrate how this approach can account for the plain, honouring and dishonouring uses of linguistic forms in Balinese.

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<sup>1</sup> Earlier versions of this paper have been presented at the Australian Linguistics Society conference in Canberra and in the Syntax Supper seminar series at Stanford University. Some sections of this paper were also part of my 1998 Ph.D. thesis. I thank Bill Foley, Jane Simpson, Ivan Sag, Joan Bresnan, Rob Malouf and an anonymous reviewer for their comments and suggestions. All errors are mine.

The paper is organised as follows. I provide a brief description of Balinese morphosyntax, and the history of speech levels in Balinese, in section two. In section three, I set out the relevant social relations, and propose to model them in the grammar by means of ‘social predicates’, which are part of an additional layer of structure called ‘pragmatic structure’ or *prag-str*. Using that as a basis, in section four I formulate a Principle of Pragmatic Consistency, and use it to account for the unacceptability of sentences which violate it yet obey all relevant syntactic constraints. In section five I consider cases of deliberate violation of the Pragmatic Consistency Principle to effect (dis)honouring implicatures, and offer a lexical analysis that accounts for the constraints on such cases. Section six contains the conclusion.

## 2. Balinese: An overview

### 2.1. *History of speech levels in brief*

The speech-level system of Modern Balinese is due to Javanese influence (Clynes 1989; 1995). The system was absent in Old Balinese, and is absent today in certain conservative dialects of Mountain Balinese, such as the Sembiran dialect in northern central Bali. The earliest known Old Balinese texts, dated 882 CE,<sup>2</sup> already show the influence of Old Javanese (*Kawi*) and Sanskrit. This suggests that there was cultural contact between the Javanese and Balinese some time prior to the 9th century. It is unclear whether the spoken Balinese (the everyday language) of that time already used speech levels of some kind. It is clear that Javanese had already developed elaborate speech levels some time before the heyday of the Majapahit Kingdom in the 14th century. The critical period for the formation of Balinese speech levels is most likely between the 14th and 15th centuries. At this time Javanese influence on Balinese had intensified because Bali was directly controlled by the Javanese Majapahit Kingdom. Old Javanese elements and Sanskrit borrowings began to spread from highly formal (royal and religious) usage to everyday Balinese speech. Since Javanese and Sanskrit were associated with the language of the elite, they contributed a large number of high-register words to Balinese. The native Balinese lexicon, by contrast, generally became the low register.

The elaborate social stratification of contemporary Balinese society, to which Balinese speech-level usage is now tied, appears to have developed independent of Javanese influence. There were Hindu kingdoms in Bali long before the annexation of Bali as part of the Majapahit kingdom in the 14th century. Balinese clearly had already embraced Indian Hinduism and its caste stratification by then. In other words, the current caste system in Bali originated from a system that existed prior to the 14th century but was enriched and developed under the influence of Majapahit. The use of speech levels is still anchored to the caste system, but is no longer exclusively governed by it. The emergence of modern (education- and merit-based) social strata has caused changes. For example, there has recently been a move toward the expression of mutual respect, leading to a more symmetric use of Balinese than before. Three or four decades ago, speech levels were routinely asymmetric: a high caste person would typically use low register when speaking to a low caste person, and would receive a reply in high

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<sup>2</sup> These were inscribed on copper plaques, and mainly contained royal decrees (Goris 1954).

register from the low caste person. In modern Bali, if a high caste person wishes to have a reply in high register, s/he generally avoids using low register even when talking to a low caste person.

## 2.2. Speech levels and Balinese morphosyntax

Balinese is an agglutinating language, with relatively rich verbal and nominal morphology. Speech levels in Balinese differ mainly in lexicon, not in morphosyntax. The same clause and phrase structures, derivational morphology, voice marking, and grammatical relations apply across registers. A brief description to show this will be given here.<sup>3</sup>

*Clause and phrase structures.* Clauses in Balinese are typically S(ubject)-V-O(bject), with S sometimes coming after VO. The two clauses in (1) ‘mean’ the same but are in different registers.<sup>4</sup> They show the same clausal syntax of S-V-O-ADJ(unct). Note that internally the NP ‘the pig’ and the PP ‘at (the) market’ have the same structure in each register; for example, the determiner ‘that’ comes after the noun.

- (1)a. [Tiang]<sub>s</sub> [numbas]<sub>v</sub> [bawi-ne punika]<sub>o</sub> [ring pasar]<sub>ADJ</sub> (h.r.)  
 1 AV.buy pig-DEF that at market  
 ‘I bought the pig at the market.’
- b. [Cang]<sub>s</sub> [meli]<sub>v</sub> [celenge ento]<sub>o</sub> [di peken]<sub>ADJ</sub>. (l.r.)  
 1 AV.buy pig-DEF that at market  
 ‘I bought the pig at the market.’

*Morphology.* Low and high registers employ the same morphology, as evidenced by the verb forms in (1). The verb meaning ‘buy’ has different forms, *numbas* (1a) and *meli* (1b). However, each has the same AV prefix, namely the homorganic nasal prefix *N-*: *numbas* is [*N-* + *tumbas* ‘buy’] and *meli* is [*N-* + *beli* ‘buy’].

<sup>3</sup> Balinese grammar has been well researched, mainly in the form of Ph.D. dissertations. Hunter’s (1988) and Beratha’s (1992) research is historical-descriptive in perspective; Artawa’s (1994) is typological, highlighting the ergativity in Balinese syntax; Clynes’ (1995) is also descriptive, focussing on Balinese phonology and morphosyntax (based on the dialect of Singaraja); Pastika’s (1999) is functional, focusing on voice selection in Balinese narrative discourse; and Arka’s (1998, 2003) is typological and theoretical, focusing on topics such as phrase structure, argument structure and (reflexive) binding from a lexicalist perspective. Earlier work on Balinese, not in the form of dissertations, consists of descriptive grammatical sketches, for example Kersten (1970), Barber (1977), and Oka Granoka et al. (1985).

<sup>4</sup> *Abbreviations in glosses are:* 1 - First-person pronoun, 2 - Second-person pronoun, 3 - Third-person pronoun, ADDRS - Addressee, APPL - Applicative, ART - Article, AV - Agentive voice, BACKGR - background restriction, CAUS - Causative, DEC - Declarative, DEF - Definite, FUT - Future, HON - Honorific, hi - High register word, h.r. - High register, lo - Low register word, l.r. - Low register, NOM - Nominative, PASS - Passive, POSS - Possessive, REL - Relative pronoun, SP-PARTCS - Speech participants, UV - Undergoer voice.

*Abbreviations in the text are:* *a-str* - Argument structure, *c-str* - Constituent structure, *f-str* - Functional structure, *gf-str* - Grammatical function structure, IP - Inflectional Phrase, OBJ - Grammatical object, OBL - Oblique, *prag-str* - Pragmatic structure, S - Subject or small structurally flat non-finite clause, *sem-str* - Semantic structure, SUBJ - Grammatical subject, V(P) - Verb (Phrase).

Balinese is rich in affixes. A full illustration to show that different registers employ the same affixes cannot be given here due to limitations of space. The only affix that appears to be an exception is the passive prefix. There are two passive affixes, *ka-* and *-a* (Arka 2003). The prefix *ka-* is generally associated with high register whereas the suffix *-a* is generally used for low register. The distinction is not absolute, however, because *-a* is also used in high register. Thus, for the high register word *icen* ‘grant, allow, give,’ there are two possible passive forms meaning ‘be granted,’ *icen-a* and *ka-icen*.

*Grammatical relations.* Balinese has Subject, Object, and Oblique grammatical relations. Grammatical subject has certain exclusive properties (Arka 2003; Artawa 1994), one of them being control. Only grammatical subject can be controlled in Balinese and this applies equally to low and high registers, as evidenced by the examples in (2). (The controlled subject is indicated by a gap, ‘\_\_’.)

- (2) a. *Tiang makita* [ \_\_ *numbas sanganan*] (h.r.)  
 1 want AV.buy cake  
 ‘I want to buy cake’
- b. *Icang edot* [ \_\_ *meli jaja*] (l.r.)  
 1 want AV.buy cake  
 ‘I want to buy cake’

The effects of grammatical function changing operations are also the same in both registers. For example, the following sentences show the UV voice counterparts of the sentences in (1):

- (3) a. *Bawi-ne punika tumbas tiang ring pasar* (h.r.)  
 pig-DEF that UV.buy 1 at market  
 ‘The pig, I bought (it) at the market’
- b. *Celeng-e ento beli icang di peken* (l.r.)  
 pig-DEF that UV.buy 1 at market  
 ‘The pig, I bought (it) at the market’

The undergoer (*bawine/celenge* ‘the pig’) in the UV constructions in both registers is the grammatical subject, which, as here, typically appears sentence-initially.<sup>5</sup> The position of the actor (*tiang/icang* ‘I’) in each sentence is the same, namely immediately after the verb.

### 3. Social structures and linguistic encoding

#### 3.1. How many levels are there?

<sup>5</sup> It should be noted that the actor *tiang* or *icang* ‘I’ is the ‘logical’ subject, not the grammatical subject of the UV sentences. The actor of an UV sentence does not exhibit properties of the grammatical subject in Balinese. For example, it cannot be relativised or controlled (see Arka 2003: 4-31 for details).

There is disagreement among traditional Balinese grammarians as to how many levels must be distinguished.<sup>6</sup> For simplicity, I will follow the traditional division of Balinese speech levels into two broad categories: The *lumrah* (lit. ‘ordinary, common’) level, also called *kasar* (lit. ‘rough’), versus the *alus* (lit. ‘refined, smooth’) level, henceforth low and high registers respectively. Contrasting *lumrah/alus* pairs in major and minor word categories of Balinese are given in (4). It should be noted that my use of the terms *lumrah* and *alus* is a non-technical shorthand. As will be discussed in subsection 3.4., I develop an alternative way of looking at the speech-level system, by incorporating the hierarchical social relations underlying it into a pragmatic layer contained in the lexical entry of a word.

(4)

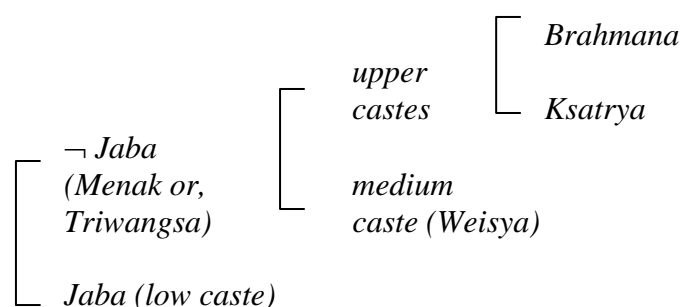
	CATEGORY.	LUMRAH ‘LOW REGISTER’	ALUS ‘HIGH REGISTER’	MEANING
a.	Noun	<i>Bok</i>	<i>rambut</i>	‘hair’
b.	Adjective	<i>Gelem</i>	<i>sungkan</i>	‘ill’
c.	Verb	<i>Mati</i>	<i>seda</i>	‘die’
d.	Adverb	<i>Jani</i>	<i>mangkin</i>	‘now’
e.	Preposition	<i>Di</i>	<i>ring</i>	‘at’
f.	Pronoun	<i>icang</i>	<i>tiang</i>	‘I’
g.	Determiner	<i>ene</i>	<i>niki</i>	‘this’
h.	Conjunction	<i>lantas</i>	<i>raris</i>	‘(and) then’
i.	Relative pronoun	<i>ane</i>	<i>sane</i>	‘that’
j.	Question	<i>nyen</i>	<i>sira</i>	‘who’
k.	Auxiliary	<i>lakar</i>	<i>jagi</i>	‘will’
l.	Negator	<i>sing</i>	<i>tan</i>	‘not’

### 3.2. Social stratifications and speech levels: No one-to-one correspondence

To understand how the speech-level system in Balinese works, we first have to know about the traditional social stratification of Balinese society, which is shown in Figure 1. At the broadest level, the traditional strata have a two-way grouping, *jaba* ‘commoner’ versus *menak* ‘high(er) castes’,<sup>7</sup> with the *menak* category (also called *triwangsa*, the three upper castes) having further subgroups. There are word forms (quite limited in number) matching these classifications. For example, the third person pronominal forms, *ia*, for a *jaba* person, *dane*, for a medium caste person, and *ida*, for an upper-caste person. These traditional classifications and the words that match them might suggest a Balinese speech-level system with an intermediate level (*madya*) in addition to the *lumrah* and *alus* levels. However, as we shall see, there is in fact no simple correspondence between the social levels of Balinese society and speech levels as reflected in word paradigms.

<sup>6</sup> For example, three Balinese dictionaries have three different classifications: Ananda Kusuma (1986) has 3 levels, Simpen (1985) has 6 levels, and Warna (1993) has 4 levels.

<sup>7</sup> The symbol – is a negator. Hence, the category traditionally called *Triwangsa* is represented here as –*jaba*, which means it is a *non-jaba* category.



**Figure 1 Traditional hierarchy in Balinese society**

An aspect often overlooked in the distinction between *lumrah* and *alus* forms is the interplay of the referent's social status with that of the addressee. Different word forms in Balinese not only reflect differences of social status in relation to the thing being talked about (the referent), but also in relation to the addressee. For example, third person *ia* is used to refer to a *jaba* person in the context of a *jaba* addressee. When the addressee is an upper-caste person, the pronoun *ipun* is used. The contrasting use of *ia* and *ipun* and the other third person pronouns is shown in Table 1. As the table demonstrates, the addressee's social status is crucial in the use of *ia* and *ipun*, but irrelevant in the use of *dane* and *ida*.

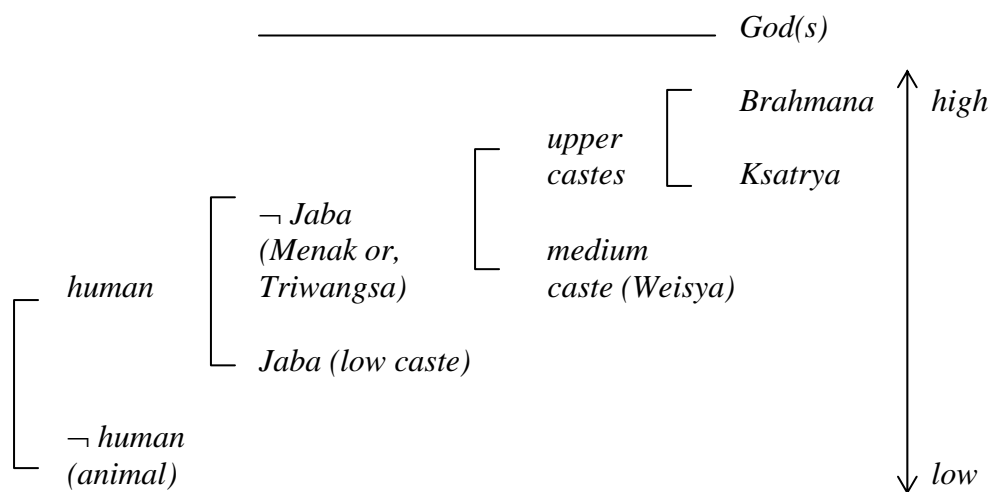
**Table 1 Third person pronouns in Balinese**

	PRONOMINAL FORMS	RELEVANT SOCIAL STATUS	
		REFERENT	ADDRESSEE
a.	<i>Ia</i>	<i>jaba</i>	<i>jaba</i>
b.	<i>ipun</i>	<i>jaba</i>	<i>upper caste</i>
c.	<i>dane</i>	<i>medium caste</i>	-
d.	<i>ida</i>	<i>upper castes</i>	-

Although there are four pronouns for the third person, there are at least seven forms for the first person, as shown in Table 2. The additional semantic categories of 'non-human' and 'god' are needed to account for their distribution. Figure 2 is an extended version of the social stratification of Balinese society.

**Table 2 First person pronouns in Balinese**

	PRONOMINAL FORMS	RELEVANT SOCIAL STATUS	
		REFERENT	ADDRESSEE
a.	<i>nira</i>	<i>God</i>	-
b.	<i>gelah</i>	<i>Royal</i>	-
c.	<i>titiang</i>	-	<i>upper-caste</i>
d.	<i>tiang</i>	-	<i>menak</i>
e.	<i>iang</i>	<i>(menak)</i>	<i>menak</i>
f.	<i>icang</i>	<i>jaba</i>	<i>jaba</i>
g.	<i>kai</i>	-	<i>animal</i>



**Figure 2 Traditional hierarchy in Balinese society (revised)**

Finally, it is important to bear in mind what is in the language (*langue*) and how it is used by speakers (conventionally or idiosyncratically) to achieve certain communicative goals (*parole*). The intricate relationship of a variety of forms and related social structures provides a powerful resource for the speaker to manipulate and achieve certain communicative effects. In particular, the low-high metaphor indicated by the vertical arrow in Figure 2 is crucial for (dis)honouring discourse. Although a person should use the correct form of a pronoun to express politeness or respect, they could deliberately use an incorrect form to signal his/her disrespect (see (50) for a precise formulation).

In the subsequent subsections, I will be more specific about how the social information just outlined is associated with linguistic politeness in Balinese, and how it can be precisely captured in a lexical model of grammar. The view adopted in this paper is that words in Balinese do not carry register features of ‘high’, ‘medium’, or ‘low’. Rather, they carry certain social information that reflects Balinese social stratification, whereby the metaphor low and high is derived. While the terms low/high and *lumrah/alus* are still used for convenience, they can be dispensed with in a precise analysis of speech-level agreement.

### 3.3. Politeness and the nature of pragmatic agreement

Politeness can be expressed linguistically, with polite words or expressions, or non-linguistically, with body-movement and facial expression. Its expression is in general culturally dependent but there are commonalities across cultures (Brown and Levinson 1987). Pragmatic agreement is tied to *linguistic* politeness, to which I limit the ensuing discussion.

Polite expressions may be marked by honorific markers, as in Korean (Eun and Strauss 2004; Park 1991; Wang 1990), or may be associated with certain plural (pronominal) forms, as in Slavic, Romance, and Modern Greek (Comrie 1975; Kathol 1999; Pollard and Sag 1994). Polite expressions may also be associated with paradigmatic contrasts between lexical items (which must be learned individually) as in

the speech-level systems of Balinese.<sup>8</sup> A typical feature of languages with speech-level systems is the so-called ‘honorific agreement,’ a co-occurrence restriction on (non-)polite forms which may constrain subject-verb co-occurrence. The following are examples from Korean (4) and Balinese (5):

- (4) Korean
- a. *Kim sacang-i o-ass-ta*  
 name president-NOM come-PAST-DECL  
 ‘President Kim has come’ (plain)
- b. *Kim sacang-nim-i o-si-ess-ta*  
 name president-HON-NOM come-HON-PAST-DECL (polite)
- c.# *Kim sacang-i o-si-ess-ta*  
 HON
- d.# *Kim sacang-nim-i o-ass-ta*  
 HON (Park 1991; Pollard and Sag 1994)
- (5) Balinese
- a. *Ida/?\*ia ngrayunin*  
 3 hi 3 lo eat hi  
 ‘(S)he is eating’
- b. #*Ida/ia madaar*  
 3 hi 3 lo eat lo  
 ‘(S)he is eating’

For Korean, sentence (4a) shows a ‘plain’ expression. Sentence (4b), by contrast, shows the polite counterpart in which both subject and verb must be marked by honorific markers (HON): *nim* (for nouns) and *si* (for verbs). Marking only one of them (3c,d) renders the sentence unacceptable. The Balinese examples show a similar restriction.<sup>9</sup> The verb ‘eat’ in Balinese has a number of forms (see (35)), but only two are shown here. (5a) shows ‘high’ agreement whereas (5b) shows ‘low’ agreement. The high form *ngrayunin* goes with *ida*, not *ia* (5a); the converse is observed with the low form *madaar* (5b).

It should be noted that the pragmatic agreement exemplified here is not the same as the grammatical number-and-gender agreement commonly found in Indo-European languages. Unlike grammatical agreement, where violation yields strong unacceptability (marked by \*), a violation of pragmatic agreement is more acceptable (marked here by #); there may be variability among native speakers, subject to pragmatic constraints. Thus, a violation of grammatical agreement renders a sentence irretrievably bad, such that no conceivable context could make it acceptable, whereas violation of pragmatic

<sup>8</sup> The same strategy is used in the speech-level systems of the neighbouring languages Javanese and Sasak.

<sup>9</sup> For simplicity, *high* and *low* registers are glossed as *hi* and *lo* respectively. It should be noted that this glossing is a bit misleading, since a word can carry both ‘*hi*’ and ‘*lo*’ information, as we shall see.



agreement may be pragmatically motivated and may have certain implicatures (to be discussed in section 5).

### 3.4. Capturing linguistically relevant social information

Recall that the speech level system in Balinese is tied to the social structure and social values of Balinese society, as shown in Figure 2. Balinese culture is rooted in a mixture of Indian Hinduism and local and traditional values. The world is strictly structured hierarchically, with the gods at the top and animals and plants at the bottom. The category *God/gods* in Figure 2 is distinct from the levels below it. The specification non-human ( $[-human]$ ) must therefore be understood as excluding  $[God/gods]$ .<sup>10</sup>

Before we proceed, there are two points to note about Figure 2. Firstly, it captures the idea of entailment; for example, *Brahmana* entails *upper castes*, and this in turn entails *Triwangsa*, and so on. Secondly, words may carry different degrees of social-category restrictions. At the broadest level (the most unmarked) a word may have no social-category restriction. This is a one-form word. A word with a paradigm of two members generally has its members distinguished by the opposition of  $-jaba$  versus *jaba* or *human* versus  $-human$ . Words with more than two forms may have very specific social restrictions, as with the first person pronouns in Table 2.

Now, we need to relate linguistic expressions to social categories. There are two different but related steps: first, the use of linguistic expressions without implicatures; and second, their use with (polite and impolite) implicatures. I will deal with the simpler case first by outlining the conception of social predicates within a lexically-based model of grammar.

#### 3.4.1. Social predicates and parallel-structure model of grammar

I propose that one way of relating social information to the constraints it places on linguistic expressions is to treat the traditional social categories in Figure 2 as social predicates:

- (6) Balinese social predicates:  
 $human(x)$ ,  $jaba(x)$ ,  $upper-caste(x)$ ,  $god(x)$ , ...

The argument  $x$  is an index (variable). The use of a social predicate containing an index allows the integration of social information with other kinds of information in the grammar. Since the social information contained in a form is essentially tied to restrictions as to how a speaker *uses* the linguistic form in certain contexts (subject to the relative social status of the speech participants), I propose that the locus for social information be the *background restrictions* (*backgr*) of the so-called *pragmatic structure* (*prag-str*).

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<sup>10</sup> For simplicity, I put aside the category of  $[God/gods]$ . Since by convention the gods are honoured, the restrictions associated with them can be handled in conjunction with the honouring-relation discussed later in section 5.

I assume a lexical (LFG-style) framework (Bresnan 2001; Dalrymple 2001; Falk 2001), where grammar is modelled in terms of parallel structures, informally shown in (7) for the representation of the Balinese third person pronoun *ia*. This representation says the form *ia* is part of the constituency structure (*c-str*) whose grammatical category is a pronoun, and this pronoun is under the node of NP. The semantic content of *ia*, which is ‘3.pro’, is shown in the semantic structure (*sem-str*). The pragmatic structure (*prag-str*) of *ia* specifies that this pronoun must be used when both its referent (index *i*) and one of the speech participants (*sp-partcs*), namely the ADDRESSEE (index *k*), are *jaba*.

(7)

C-STR		[ <i>ia</i> ]PRONOUN/NP
A-STR		
SEM-STR		‘3.pro’ <sub><i>i</i></sub>
PRAG-STR	SP-PARTCS	SPEAKER <sub><i>j</i></sub> ADDRESSEE <sub><i>k</i></sub>
	BACKGR	{ <i>jaba</i> ( <i>i</i> ), <i>jaba</i> ( <i>k</i> )}

Different linguistic items contain different social predicates. The specification is possibly individually determined in the lexical entry. Derived forms may inherit social information from their stems (see examples (27)-(28)). Social predicates may be associated with the arguments of a verb (*a-strs*, argument structures). Consider the verb ‘eat’, given here in its complete paradigm:

(8)

	C-STR	A-STR/SEM-STR	PRAG-STR	
			SP-PARTCS	BACKGR
a.	[ <i>ngrayunin</i> ] <sub>v</sub>	<‘eater’ <sub><i>i</i></sub> , (‘eaten’)>		{ <i>upper-caste</i> ( <i>i</i> )}
b.	[ <i>ngajeng</i> ] <sub>v</sub>	<‘eater’ <sub><i>i</i></sub> , (‘eaten’)>		{¬ <i>jaba</i> ( <i>i</i> )}
c.	[ <i>madaar</i> ] <sub>v</sub>	<‘eater’ <sub><i>i</i></sub> >		{ <i>jaba</i> ( <i>i</i> )}
d.	[ <i>ngamah</i> ] <sub>v</sub> [ <i>nidik</i> ] <sub>v</sub> [ <i>ngleklek</i> ] <sub>v</sub>	<‘eater’ <sub><i>i</i></sub> , (‘eaten’)>	ADDRS <sub><i>j</i></sub>	{¬ <i>human</i> ( <i>i</i> ), <i>jaba</i> ( <i>j</i> )}
e.	[ <i>neda</i> ] <sub>v</sub>	<‘eater’ <sub><i>i</i></sub> , (‘eaten’)>	ADDRS <sub><i>j</i></sub>	{¬ <i>human</i> ( <i>i</i> ), ¬ <i>jaba</i> ( <i>j</i> )}

(For simplicity, *sem-str* and *a-str* are collapsed.) The verbs basically differ in the social information associated with the Agent (the eater). However, the verb forms in (8d) *ngamah/nidik/ngleklek* and in (8e) *neda* also contain social information about the addressee. Syntactically, as shown by the *a-strs*, only *madaar* (8c) is strictly intransitive; the other forms are optionally intransitive (because the Patient argument can be dropped).<sup>11</sup>

In the model adopted here, the *prag-str* is a layer rich in information. It can contain various kinds of pragmatic information that constrains the use of linguistic

<sup>11</sup> Note that these verbs are Agentive Voice (AV) verbs (i.e. with a nasal prefix). To be precise, the (transitive) entries will be represented in their stem forms (e.g. *rayunin*, *ajeng*, etc. see (47)-(48)).

expressions.<sup>12</sup> In the present analysis, it is the locus for the social information that gives rise to pragmatic agreement, as for example in Balinese, Javanese, and Korean speech styles. The idea of *prag-str* as consisting of speech participants (mainly SPEAKER and ADDRESSEE) and background restrictions is adapted from HPSG (Pollard and Sag 1994). This layer may also include the implicatures associated with social information (to be discussed shortly). In addition to the (sub)layer containing social information relevant for the speech levels, *prag-str* can also contain pragmatic information relating to Topic and Focus; for example, what is often referred to as information structure or *i-str*). This aspect of pragmatic organisation has been given much attention within the functional stream of linguistics (Foley 1994; Givón 1990, 1995). Proposals for an explicit representation have been put forward, such as that by Choi (1996). I will not discuss *i-str* any further.

### 3.4.2. Semantic and pragmatic agreement

The advantage of an analysis which posits a *prag-str* containing social predicates is that it accounts for agreement patterns.<sup>13</sup> For example, a word with an *upper-caste* restriction in its *prag-str* entry is compatible with a word that has a *-jaba* restriction, and incompatible with one that has a *jaba* restriction. Compatibility renders the construction acceptable, whereas incompatibility results in a semantic/pragmatic clash and an unacceptable construction. This is the essence of speech-level agreement.

I analyse speech-level agreement as semantic and pragmatic agreement. That is, an agreement requirement on an index associated with a social predicate in the background restrictions may be shared by an index in the semantic content (for example, the referent of an argument of a verb) and by an index in the pragmatic layer (such as the SPEAKER or ADDRESSEE). Thus, when a social restriction is associated with an index of the semantic layer, the speech-level agreement looks like what is known as a selectional restriction in the semantics literature (such as English *kill* versus *assassinate*). In my view, the choice of one form over another in the speech-level system (also in some English words showing selectional restrictions, for example, *kill* and *assassinate*) is not purely a semantic matter, because it reflects how a speaker must *use* the language *appropriately*, showing his/her personal judgment about the social status of a referent in some context.<sup>14</sup> In short, we have a mixture of semantic and pragmatic agreement, and the social restrictions are analysed here as appropriateness conditions.

The presence of the pragmatic requirement to recognise a person's social status (for example, in order to show respect) complicates the issue and analysis of pragmatic agreement in Balinese. In contemporary Balinese society there has been change taking

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<sup>12</sup> While social information is specified in the lexical entry, it is strictly speaking not semantic information because it is not part of the lexical content of an item, though related to it.

<sup>13</sup> Balinese is argued to show 'agreement' even though it does not have any agreement affix, for reasons to be explained in the subsequent discussions.

<sup>14</sup> This is not to rule out completely the possibility that the use of some word in Balinese might be based purely on semantic grounds. This is perhaps true for loan words, which almost always have no alternative form, e.g. *montor* 'car' and *televisi* 'television'. Even with these words, it is hard to conceive of a context where a Balinese speaker could avoid a social judgement about the addressee or some person associated with the thing being talked about. The speaker would have to make a choice about the determiner, verbs, adjectives, etc., that generally accompany one-form words in a sentence.

place, and the caste system is no longer the only basis for social stratification and relative ranking or distance between speech participants. In particular, power relations (superior versus inferior) have shifted from caste-based to merit-based (rank or profession in modern social structures is often based on personal achievement). Thus, although it still plays a role, ranking in terms of caste is not the only (and perhaps no longer the main) factor determining the choice of the correct linguistic forms. And apart from caste and achievement, there are other factors in play, such as kin-relations, age, social distance (relative intimacy), and formality (Brown and Levinson 1987; Leech 1983; Lyons 1986, and others). Nevertheless, I argue that the analysis presented here, based on the social relations in Figure 2, allows us to detail the complex background restrictions which account for the honorific and non-honorific uses of the speech-level system. Before discussing these uses of the system in section 5, I will discuss how certain basic facts of Balinese speech levels are explainable in terms of the proposed *prag-str*.

#### 4. Basic facts explained

The intricacies of speech levels are explained in terms of the Principle of Pragmatic Consistency, which is associated with the *prag-str*. The principle is discussed in subsection 4.2. Before we come to that, a brief discussion of the inconsistency of the traditional labels (*alus* and *lumrah*) is given. This is to highlight the fact that words in Balinese carry information about different social relations (in the *prag-str/backgr*) associated with the indices from two different layers: From the *sem-str* (the Actor's index) and from the speech-participants of the *prag-str* (the addressee's index). The specification is idiosyncratic and therefore must be learned individually. For instance, one must learn whether a predicate has alternates; if it does, then how many word-forms, which arguments must have which social-relation restrictions, and finally, whether there is a constraint on the addressee. These are not well captured by the traditional labels.

##### 4.1. Why the traditional labels *lumrah* and *alus* are inconsistent

The traditional labels are not much help in accounting for semantic and pragmatic agreement in Balinese. This is because the traditional labels collapse the social restrictions associated with the *sem-str* item and the *prag-str* item. The labels cut across different specifications associated with different numbers of paradigmatic forms. For example, the *lumrah* (low) and *alus* (high) forms for 'sit' in (9) are distinguished by the social restrictions associated with the *Agent* argument.

(9)	C-STR	A-STR / SEM-STR	PRAG-STR		REGISTER
			SP-PARTCS	BACKGR	
a.	[ <i>negak</i> ] <sub>v</sub>	'sit' <agt <sub>i</sub> >		{ <i>jaba(i)</i> }	<i>lumrah</i> (l.r.)
b.	[ <i>malinggih</i> ] <sub>v</sub>	'sit' <agt <sub>i</sub> >		{ <i>¬jaba(i)</i> }	<i>alus</i> (h.r.)

By contrast, the distinctions between the *alus* and *lumrah* forms of the verb 'die', shown in (10), do not relate only to the *Patient* argument, except in the case of *seda* (10a). The

addressee’s social status is important in the other forms (10b-d) (hereafter the symbol *V* as in (10b) means ‘or’ (disjunction)):

(10)	C-STR	A-STR/ SEM-STR	PRAG-STR		REGISTER
			SP-PARTCS	BACKGR	
a.	[ <i>sedā</i> ] <sub>V</sub>	‘die’ <pt <sub>i</sub> >		{ <i>upper-caste(i)</i> }	alus (h.r)
b.	[ <i>padem</i> ] <sub>V</sub>	‘die’ <pt <sub>i</sub> >	ADDRS <sub>j</sub>	{ <i>jaba(i) ∨ ¬human(i),</i> <i>¬jaba(j)</i> }	alus
c.	[ <i>mati</i> ] <sub>V</sub>	‘die’ <pt <sub>i</sub> >	ADDRS <sub>j</sub>	{ <i>jaba(i) ∨ ¬human(i),</i> <i>jaba(j)</i> }	lumrah (l.r.)
d.	[ <i>bangka</i> ] <sub>V</sub>	‘die’ <pt <sub>i</sub> >	ADDRS <sub>j</sub>	{ <i>¬human(i), jaba(j)</i> }	lumrah

For a transitive verb, social restrictions may be associated with different arguments and with the addressee. The traditional labels *alus/lumrah* can refer to different kinds of social restrictions. Consider the transitive ‘buy’ (11) and the ditransitive ‘give’ (12):

(11)	C-STR	A-STR/ SEM-STR	PRAG-STR		REG.
			SP-PARTCS	BACKGR	
a.	[ <i>beli</i> ] <sub>V</sub>	‘buy’ <agt <sub>i</sub> , pt>	ADDRS <sub>j</sub>	{ <i>jaba(i), jaba(j)</i> }	lumrah (l.r)
b.	[ <i>tumbas</i> ] <sub>V</sub>	‘buy’ <agt <sub>i</sub> , pt>	ADDRS <sub>j</sub>	{ <i>¬(jaba(i), jaba(j))</i> }	alus (h.r.)

(12)	C-STR	A-STR/ SEM-STR	PRAG-STR		REG.
			SP-PARTCS	BACKGR	
a.	[ <i>baang</i> ] <sub>V</sub>	‘give’ <agt <sub>i</sub> , go <sub>j</sub> , th <sub>k</sub> >		{ <i>jaba(i) ∨ ¬human(i),</i> <i>jaba(j) ∨ human(j)</i> }	lumrah (l.r)
b.	[ <i>aturang</i> ] <sub>V</sub>	‘give’ <agt <sub>i</sub> , go <sub>j</sub> , th <sub>k</sub> >		{ <i>¬jaba(j)</i> }	alus (h.r.)
c.	[ <i>icen</i> ] <sub>V</sub>	‘give’ <agt <sub>i</sub> , go <sub>j</sub> , th <sub>k</sub> >		{ <i>¬jaba(i)</i> }	alus

There is one *alus* form for ‘buy’ (*tumbas* (11b)) but two for ‘give’ (*aturang* and *icen* (12b-c)). Although both have *alus/lumrah* contrasts, the addressee’s social status is a constraint for ‘buy’ (11), but not for ‘give’ (12). For the verb ‘buy,’ the contrast is also determined by the social status of the Agent argument (not the Theme). Note the negator operator in (11b) *¬(jaba(i), jaba(k))* means the *alus* form *tumbas* is used in the situations shown in (13a-c), but not in the situation (13d), where *beli* would be used instead:

- (13) a. Agent = *jaba* & ADDRESSEE = *¬jaba*
- b. Agent = *¬jaba* & ADDRESSEE = *jaba*
- c. Agent = *¬jaba* & ADDRESSEE = *¬jaba*
- d. \* Agent = *jaba* & ADDRESSEE = *jaba*

The opposition between the *alus/lumrah* forms for ‘give’ in (12), on the other hand, depends on the social status of the Agent and the Goal. If both are of low social status, *baang* (12a) is used. Otherwise, if the Goal is of high status *aturang* (b) is used, or if the Agent is of high status, *icen* (12c) is used.

While the traditional labels give a rough idea of how speech-level agreement works, they are inconsistent. They therefore find little use in this attempt to make social information precise, so as to account for a wide range of pragmatic-agreement phenomena. Rather, an approach where different layers of structure are identified, and social information is captured by social predicates, is better able to precisely account for the mechanisms behind pragmatic agreement. I now turn to the principle that regulates such agreement.

#### 4.2. The principle of pragmatic consistency

The mechanisms in the model of grammar adopted here (constraint-based, unification-based, involving a number of parallel but related structural layers) ensure that the information associated with a particular item in a particular structure is passed up to the higher levels (for example, to phrases and ultimately to the sentence) in a principled way. Essentially, there cannot be an information clash associated with a particular layer of structure. A clash in grammatical information yields an ungrammatical sentence, while a clash in semantic information gives rise to a semantic anomaly which makes a sentence bad or odd. The same is also true for pragmatic information. As we have already observed for Balinese and Korean, a clash in pragmatic information results in bad sentences. I assume that the social information associated with the daughters in a phrase tree (words or phrases in the *c-str*) is passed up to the mothers in the same way as syntactic and semantic information. The *prag-str* of a sentence ultimately may contain a (varied) set of social relations associated with the arguments or the speaker or addressee, which it collects from the words occupying the terminal nodes of the sentence. Crucially, the accumulated social relations associated with a particular index must be compatible with one another. There cannot be a clash,<sup>15</sup> otherwise a string is unacceptable. I will assume the principle regulating the flow of such information is the Principle of Pragmatic Consistency<sup>16</sup>:

(14) Principle of Pragmatic Consistency

*The backgr value of the prag-str of a given phrase is the union of the backgr values of the daughters and must not contain conflicting specifications.*

The principle in (14) rules out the following union:

$$(15) \{jaba(i)\} \cup \{-jaba(i)\} = * \{jaba(i), -jaba(i)\}$$

(15) is excluded because the same index (*i*) is associated with two conflicting predicates. This means a structure containing such a union would render the sentence

<sup>15</sup> If there is a clash, it must be pragmatically motivated. I discuss how this can be captured in section 5.

<sup>16</sup> This is adapted from Pollard and Sag (1994: 333).

bad, because there could be no situation satisfying the two constraints at the same time.<sup>17</sup> However, (16) is predicted to be fine because *brahmana* belongs to a *non-jaba* category (see Figure 2) hence there is no clash:

$$(16) \{ \neg jaba(i) \} \cup \{ brahmana(i) \} = \{ \neg jaba(i), brahmana(i) \}$$

In what follows, I explore some constructions where the Principle of Pragmatic Consistency comes into effect. One of the interesting cases is where binding is prohibited, not because of a syntactic violation in binding theory, but because of a pragmatic consistency violation.

### 4.3. Agreement patterns

The Principle of Pragmatic Consistency may show up in a number of agreement patterns. An effect of subject-verb agreement is illustrated by example (5). The material below illustrates pragmatic agreement in a number of different contexts: Equi/control constructions, gapping and coordination, and pro-forms.

#### 4.3.1. Control constructions

In a control structure, the missing subject of the embedded verb is understood as the grammatical subject of the equi (matrix) verb. We expect agreement. Consider the embedded verbs for ‘sit’ in (17), *negak* (*lumrah/low*) and *malinggih* (*alus/high*). *Negak* is fine because it entails  $\{ jaba(i) \}$ , and is compatible with the controller (subject *ia*) which also has the same specification. On the other hand, *malinggih* is not possible because its restriction  $\{ \neg jaba(i) \}$  causes a clash with the  $\{ jaba(i) \}$  restriction of the subject *ia*:

(17) a. <i>Ia</i>	<i>negarang</i>	[ <i>negak</i> / * <i>malinggih</i> ]
3{ <i>jaba(i)</i> }	try	sit{ <i>jaba(i)</i> }/ sit{ $\neg jaba(i)$ }
‘(S)he tried to sit down’		<i>a-str</i> : ‘try <__i, ‘sit’ < __i>>

#### 4.3.2. Gapping

In a coordinated structure, the second occurrence of an item can be gapped. The gap is understood to be identical with the first occurrence. We expect there to be a restriction on gapping. Consider (18) below:

(18)	a. <i>Nyoman</i>	<i>mati</i>	<i>ibi</i>	<i>sakewala</i>	<i>ia</i> __	<i>busan</i>	(the gap = <i>mati</i> )
	name <sub>i</sub>	die	yesterday	but	(s)he <sub>j</sub>	just.now	
					{ <i>jaba(j)</i> }		

<sup>17</sup> I will later discuss the possibility of allowing certain pragmatic clashes to account for implicatures of (dis)honouring.





*panjak idane* ‘His Majesty and his servant’ (21a). The use of *seda* is inconsistent with information coming from the conjunct *panjak* ‘servant,’ because this noun carries a *jaba* relation. Likewise, the use of *mati* is inconsistent with *Ratu Dewa Agung*. The conflict is resolved by coordination at the clausal level (21b).

- (20) a. *seda* ‘die’ <\_\_i>  
           {*upper-caste(i)*}
- b. *mati* ‘die’ <\_\_i>  
               {jaba(i)}
- (21) a. ?\*[*Ratu Dewa Agung*   *teken*   *panjak ida-ne*]<sub>SUBJ</sub>   *seda/ mati*  
           His Majesty                 and         servant 3POSS-DEF die  
           {*upper-caste(i)*}                         {jaba(j)}
- ‘His Majesty and his servant(s) died’
- b. [*Ratu Dewa Agung*]<sub>SUBJ</sub>   *seda tur*   [*panjak ida-ne*]<sub>SUBJ</sub>   *mati*  
           His majesty                         die and         servant 3POSS-DEF die  
           {*upper-caste(i)*}                         {jaba(j)}
- ‘His majesty died and his servant(s) died too’

#### 4.3.5. Reflexives

Pragmatic agreement in reflexives is particularly interesting. Broadly speaking, reflexive binding in Balinese must obey the syntactic constraint of binding theory, which says the binder must be syntactically higher than the bindee.<sup>18</sup> ‘Syntactically higher’ means a relative position along the syntactic ranking of subject > object > oblique (Bresnan 1982; Keenan and Comrie 1977, and others), where ‘...>...’ means ‘... (is) higher than ...’ Thus, sentence (22a) is acceptable because the reflexive *awakne* is an Object, and the binder *Nyoman* is the subject. In contrast, sentence (22b) is unacceptable because it violates the syntactic constraint: the reflexive *awakne* (subject) grammatically outranks its intended antecedent, *Nyoman* (object).

- (22) a. *Nyoman*   *nebek*         *awakne*  
           name         AV.stab     self.3  
           ‘Nyoman stabbed himself’
- b.\* *Awakne*   *nebek*   *Nyoman*

However, there are cases where binding gives odd results; not because of a syntactic constraint violation, but because of pragmatic consistency violations. Before I come to this point, a brief description on the morphology of Balinese reflexives is necessary.

There are a number of reflexive forms in Balinese. I will focus on the widely used forms with the roots *iba*, *awak*, and *raga*. They differ in that *iba* is used for

<sup>18</sup> In addition to syntactic prominence, there is evidence that semantic prominence (for example, an agent/beneficiary ranked higher than a theme) also plays role. The details of the binding principles in Balinese cannot be given here because they are rather complex, and not all of the related constraints are relevant to the discussions in this paper. A comprehensive analysis of Balinese binding is given in Arka (2003: 163-248).

animals (hence  $\neg$ human), *awak* is used for *jaba* (but can also be used for animals, hence  $jaba \vee \neg$ human), and *raga* for *non-jaba*. The entries of simple reflexives showing their social restrictions can be represented as follows:

- (23) a. *iba* refl. *i* { $\neg$ human(*i*)}  
 b. *awak* refl. *i* { $jaba(i) \vee \neg$ human(*i*)}  
 c. *raga* refl. *i* { $\neg$ jaba(*i*)}

The entries state that the forms *iba*, *awak*, and *raga* are reflexive anaphors; they are therefore subject to binding principles, in particular the syntactic constraint. In addition, the referent (represented by the index (*i*)) has certain pragmatic constraints. *Iba* (23a), for example, must be bound by a *non-human* binder.

Morphologically complex reflexives, such as *awakne*, *ragane* ‘himself / herself / themselves’, including those formed with an explicit pronominal possessor, such as *awak icange* ‘myself’, inherit the *prag-str* restrictions of their root. The Principle of Pragmatic Consistency then predicts that forms such as *\*ragan icange* ‘myself’, *\*ragan caine* ‘yourself’, and *\*awak idane* ‘himself/herself’, are prohibited:

- (24) a. \* *ragan* *icang-e* ‘myself’  
 1POSS-DEF  
 { $\neg$ jaba(*i*)} SPEAKER<sub>*i*</sub> ADDR<sub>*s*</sub>  
 { $jaba(i), jaba(j)$ }
- b. ?\* *awak* *ida-ne* ‘myself’  
 3POSS-DEF  
 { $jaba(i)$ } {*upper-caste(i)*}

The complex form in (24a) shows a clash in its referential content: The first-person pronominal *icang* (which refers to the SPEAKER) carries a social restriction of *jaba* (index *i*) which clashes with the referential index of the reflexive root *raga*. The same clash is observed in (24b).

Now I show examples where syntactic binding constraints are respected but the sentence is still bad. Consider the following sentences:

- (25) a. *Ida* *ngantung* *raga* / # *awak* <‘3’, ‘self’<sub>*i*</sub>>  
 (s)he AV.hang self self  
 {*upper-caste(i)*} { $\neg$ jaba(*i*)} { $jaba(i)$ }  
 ^ X ^  
 ‘(S)he hanged herself/himself’
- b. *Semal-e* *ng-ulung-ang* *iba* / \* *raga* <‘squirrel’<sub>*i*</sub>, ‘self’<sub>*i*</sub>>  
 squirrel-DEF AV-fall-CAUSE self- / self  
 { $\neg$ human(*i*)} { $\neg$ human(*i*)} { $\neg$ jaba(*i*)}  
 ^ X ^  
 ‘The squirrel made itself fall down (i.e. it threw itself down)’

The syntactic binding condition is respected in both sentences because the reflexives are properly outranked by their binders. However, the reflexive forms *awak* in (25a) and

*raga* in (25b) render the respective sentences bad. This is obviously not due to a syntactic binding violation. Rather, as the arrows show, the unacceptability is due to the Pragmatic Consistency Principle violation. Based on the social structure (Figure 2), *upper-caste* entails *non-jaba*, and therefore *awak*, which is restricted to *jaba*, cannot be used in (25a). Conversely, the *non-jaba* reflexive *raga* entails *human* and hence (25b) is bad as well.

#### 4.4. Syntactic agreement and semantic/pragmatic agreement

I claim that the register or speech-level agreement found in Balinese is pragmatic agreement. It is associated with constraints in the *prag-str* layer. The evidence for this claim comes from its contrast with syntactic agreement. Consider the agreement in English:

- (26) a. *He teaches the students maths* (singular agreement)  
 b. *The students are taught maths* (plural agreement)

(26) illustrates subject-verb agreement, which is syntactic in nature, as is evident from passivisation. This process triggers a new subject-verb agreement. For instance, if the Patient of the verb *teach* is plural then passivisation triggers plural agreement, because the Patient will be mapped onto SUBJ (26b). In the active voice, however, it is the Agent, not the Patient, which is linked to grammatical subject, and therefore the Agent triggers agreement. In short, processes that alter the function mapping such as passivisation affect agreement.

The situation in Balinese is different: Passivisation does not affect the choice of a paradigmatic form of the verb. Consider (27). Sentence (27a) shows the AV form and sentence (27b) the passive form. In either case, the high verb *seda-ang* ‘die-CAUS’ must be used. In short, function-mapping alternation does not change semantic/pragmatic agreement:

- (27) a. *Ia nyeda-ang / # ngmati-ang*<sup>19</sup> *ida* (‘high’ agreement)  
 3 AV.die-CAUSE *him/her*  
 {*jaba(i)*} {*upper-caste(j)*}  
 ‘(S)he killed him/her’
- b. *Ida ka-seda-ang / # ka- mati-ang* (‘high’ agreement)  
 3 PASS-die-CAUSE  
 {*upper-caste(j)*}  
 ‘(S)he was killed’

The facts in (27) are readily explained by the model of grammar adopted here. Recall that the verb roots for ‘die’ differ in their *prag-str/backgr* specifications (see (20)): *seda* {*upper-caste (i)*} versus *mati* {*jaba(i)*}. The derived causative structures can be abbreviated in (28). The causativisation introduces a new Agent Causer, as a result

<sup>19</sup> When the root verb already has an initial nasal, as in *mati-ang*, the AV marker *N-* is non-homorganic. Thus, the AV form of *matiang* is *ngmatiang*, or *ngematiang* with an epenthetic schwa.

of which the stem’s argument becomes the Causee, index *i* in (28). Crucially, the *prag-str* restriction on the stem’s argument is now part of the derived causative predicate’s *prag-str* restriction. The Causer itself has no social restriction.

- (28) a. *mati-ang* < \_\_, \_\_ > CAUSE([j],[i])  
 EFFECT ‘die (i)’  
 {*jaba(i)*}
- b. *seda-ang* < \_\_, \_\_ > CAUSE([j],[i])  
 EFFECT ‘die (i)’  
 {*upper-caste (i)*}

In short, the derived causative inherits the pragmatic constraints from its verb stem ‘die’: *matiang* (28a) inherits its Causee’s restriction {*jaba(i)*} from its stem *mati*, and *sedaang* (28b) gets {*upper-caste (i)*} from *seda*.

Now I will explain how the Principle of Pragmatic Consistency works in relation to the acceptable/unacceptable sentences in (27). The parallel structure of sentence (27a) is displayed below:

(29)	(a)	(b)
<i>c-str</i>	<i>Ia nyeda-ang ida</i> 3 AV.die-cause 3	# <i>Ia ng-mati-ang ida</i> 3 AV-die-cause 3
<i>gf-str</i>	SUBJ OBJ	SUBJ OBJ
<i>a-str</i>	‘die-cause’ < __j, __i >	‘die-cause’ < __j, __i >
<i>sem-str</i>	CAUSE ([j],[i]) EFFECT ‘die(i)’	CAUSE ([j],[i]) EFFECT ‘die(i)’
<i>prag-str/ backgr</i>	{ <i>upper-caste (i)</i> }	{ <i>jaba(i), upper-caste (i)</i> }

(29a) is a good sentence that can be explained as follows: The AV verb maps the Actor/Causer onto subject, and the Causee (the dead person), which is associated with {*upper-caste (i)*}, onto object. The restriction that the dead person must be *upper-caste* is correctly satisfied by the high pronoun *ida*, which carries {*upper-caste(i)*}. Sentence (28b), on the other hand, has the AV *ngmatiang*, which carries in its *prag-str* a restriction of {*jaba(i)*} associated with the Causee object. Now, since the object *ida* bears {*upper-caste (i)*}, the sentence ends up with a set of inconsistent pragmatic specifications associated with index *i* in the *prag-str* (shaded in (28b)). This violates the Pragmatic Consistency Principle, and therefore the sentence is bad.

Passivisation alters the mapping of arguments onto surface grammatical relations (*gf-str*): The agent is demoted to non-core (Oblique), and the patient is then linked to subject. The *a-str* showing a distinction of core and oblique is represented in (30) as having internal brackets <<\_i><\_j>>, with core coming first followed by non-core. Note that in the passive causative verb, the Causee (index *i*) is still understood as the stem’s (patient) argument; in this instance, the dead person who must be {*upper-caste (i)*} for *kasedaang* or {*jaba(i)*} for *kamatiang*. This yields the same *prag-str* as in

the AV construction of (30b), shown by the shaded *prag-str* cell in (30). (For clarity, the complement function associated with index *j* is also shown here even though it is not expressed in the example.) Thus, the unacceptability of the passive in *ka-matiang* is expected and the fact passivisation does not change the agreement pattern is accounted for.<sup>20</sup>

Unlike English, where a function-mapping alternation affects (grammatical) agreement, Balinese shows consistency of (semantic/pragmatic) agreement in spite of different function-mappings. I have demonstrated how the analysis used in this paper can account for this fact.

(30)	(a)	(b)
<i>c-str</i>	<i>Ida</i> 3 PASS-die-cause	# <i>Ida</i> 3 PASS-die-cause
<i>gf-str</i>	SUBJ (OBL)	SUBJ OBL
<i>a-str</i>	'PASS.die-cause' << <u>i</u> << <u>j</u> >>	'PASS>die-cause' << <u>i</u> << <u>j</u> >>
<i>sem-str</i>	CAUSE (j, i) EFFECT 'die(i)'	CAUSE (j, i) EFFECT 'die(i)'
<i>prag-str/ backgr</i>	{ <i>upper-caste (i)</i> }	{ <i>jaba(i), upper-caste (i)</i> }

## 5. Honouring and dishonouring in speech levels

### 5.1. Motivated violation of the pragmatic consistency principle

So far, I have assumed that the specification of the social relations of words used by a speaker matches the actual facts of the referent's social status. Thus, the use of the low form *mati* 'die' (repeated in (31)) is assumed to denote an event where the person who died is of a *jaba* caste. In short, the appropriateness condition is met (by the agreement of the social relation *jaba (i)*).

(31)	<i>Ia</i>	<i>mati</i>
	3	die
	{ <i>jaba(i)</i> }	ADDRS <sub>j</sub> { <i>jaba(i), jaba(j)</i> }

A speaker who utters the sentence in (31) is *not* assumed to be trying to produce any particular effect in the addressee or audience, nor to be communicating a personal attitude toward the person who died or the addressee or audience.

I have shown that when the appropriateness condition of *mati* is violated, the structure is unacceptable (32). In other words, given an event where an *upper-caste* person died (as denoted by *ida*), a speaker of Balinese is supposed not to use (32) or

<sup>20</sup> This is like the passivisation in English kill/assassinate: X killed the man vs. the man was killed (by X) and X assassinated the Prime Minister vs. the Prime Minister was assassinated (by X).



Inverting the method of dishonouring discourse, one may deliberately use the higher form *ngajeng* (35b) to denote *Wayan*'s eating, with the effect that the speaker intends to communicate his/her personal respect for *Wayan* (37):

- (37) *Wayan*      *suba*      *ng-ajeng?*      'eat' < 'Wayan' *i* >  
 name { *jaba(i)* } already      AV-eat {  $\neg$  *jaba(i)* }      { *honoured(i)* }  
 'Has Wayan eaten?'

However, in contrast to (37), it is not acceptable if the highest form *ngrayunin* (35a) is used, as in (38a). The verb *ngrayunin* has an *upper-caste* restriction and its use in reference to a *jaba*'s eating is considered too much of a 'jump up' and cannot conventionally imply *honouring*. The same is true for the use of *seda* 'die' (38b) to refer to a *jaba* person:

- (38) a. ?\* *I Wayan*      *suba*      *ngrayunin?*      'eat' < 'I Wayan' *i* >  
 name { *jaba(i)* } already      eat { *upper-caste(i)* }      ?\* { *honoured(i)* }  
 'Has I Wayan eaten?'
- b. \* *Ia*      *seda*      'die' < '3' *i* >  
 3 { *jaba(i)* }      die { *upper-caste(i)* }      \* { *honoured(i)* }  
 'Has (s)he died?'

I wish to make it clear that the use of *ngajeng* and *ngrayuning* to express the event of eating associated with an upper-caste person seems to be ambiguous. By uttering (39), for instance, it is not immediately clear whether the speaker simply meets the requirement of 'upper-caste' agreement (just as in the case of *jaba* agreement in (36)), or whether (s)he additionally intends to show *deliberate* respect to *ida*. However, the use of any lower forms, because the referent is understood as an upper-caste *ida*, would imply dishonouring.

- (39) *Ida*      *sampun*      *ngrayunin?*      'eat' < '3' *i* >  
 3      already      eat      ( { *honoured(i)* } )  
 { *upper-caste(i)* }      { *upper-caste(j)* }      { *upper-caste(i)* }  
 'Has (s)he eaten?'

## 5.2. Approaches to (dis)honorifics

### 5.2.1. The theory of implicatures

It should be clear that the use of speech-level agreement as exemplified in (39) may carry meaning beyond what is simply being said. That is, (39) may have what is called, in Grice's theory, an *implicature*. To account for the (dis)honorific cases, I briefly need to review Grice's theory of implicature and Morgan's (1978) distinction between two kinds of conventions (Convention of Language versus Convention of Usage).

Grice's concept of implicature is, as Levinson (1983) says, basically a theory of how people *use* language. The general principles for an efficient cooperative use of language are summarised as follows:

- (40) The co-operative principle:  
Make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk in which you are engaged.
- (41) Maxims:
- a. *Quality*: Say only what you believe to be true and adequately supported by evidence.
  - b. *Quantity*: Be as informative as is required for the current purposes of the conversation.
  - c. *Relevance*: Be relevant.
  - d. *Manner*: Be perspicuous: Be brief and orderly and avoid obscurity and ambiguity.

If a person says (33), repeated as (42), its interpretation when it is used for dishonouring can be described as follows. This is the shared knowledge: 'I know that the addressee knows that I am talking about an *upper-caste* person and I take it (s)he assumes I *am* being co-operative and observing the maxims of conversation (such as being relevant, not misleading the addressee, etc.)'.

- (42) *Paang ida mati* {dishonoured(i)}  
let 3{upper-caste(i)} die{jaba(i)}  
'Let him/her die'

Thus, the use of *mati* instead of another 'more correct' form (*seda*) will not be taken as merely irrelevant, incorrect, or infelicitous. Rather, it will be taken as an indication the speaker wants the addressee to infer something else. Given the fact that the verb *mati* 'die' is used to describe an event associated with a person of *jaba caste*, and given the shared background assumption (Figure 2) that *jaba* is *lower* than *upper-caste*, then the utterance will be taken as 'downgrading' *ida*. This way of downgrading is conventionally referred to as *dishonouring*.

The downgrading force is even stronger and regarded as insulting if words bearing {*-human*}, such as *bangka* (43), are used in reference to humans (especially if they are of higher castes):

- (43) *Paang ida bangka* {dishonoured(i)}  
let (s)he{upper-caste(i)} die{-human(i)}  
'Let him/her die'  
(perhaps something like 'Let him/her croak')

Conversely if one says something like (37), the utterance using the *alus*/high *ngajeng* 'eat' will be taken as an indication the speaker wants to show respect to *Wayan*. In this case, the speaker assumes that the addressee knows that the speaker does indeed know that *Wayan* is a *jaba* person. The use of *ngajeng* (commonly used for *non-jaba*) is



taken to show that the speaker personally wants to treat *Wayan* as one level up (hence ‘upgrading’). Upgrading is a conventional strategy for showing respect.

I have used the term ‘conventional’ in relation to the (dis)honorific use of speech levels in Balinese. Some comments are needed to clarify this term. Morgan (1978) distinguishes between *natural* and *conventional*. Furthermore, he also distinguishes two kinds of conventions: *Conventions of language* and *conventions of usage*. By *natural* he means information that can reasonably be inferred on the basis of what counts as rational behaviour, knowledge of the world, and so on. The inference is not based *directly* on any kind of linguistic convention.

According to Morgan, a *convention of language* refers to the relation between linguistic form and literal meaning, which is arbitrary, and therefore a matter of knowledge of a particular language (the form *dog*, which arbitrarily refers to a certain type of animal, is an instance of a convention of language). A *convention of usage* refers to a convention which is a matter of culture (manners, religion, law, etc.), and not knowledge of language per se. To illustrate this point, Morgan mentions how different cultures have different ways of greeting someone, such as inquiring about his/her health, his/her welfare, or whether (s)he has eaten recently.

Returning to the present case, the (dis)honouring inference or implicature is more *conventional* than *natural* (even though there is perhaps something natural in the use of *bangka*<sup>22</sup> in (43)). First, the implicature makes use of words that are arbitrarily classified as *alus* or *lumrah* in Balinese. One cannot reasonably explain why certain words have certain social restrictions. Second, there can be what Morgan calls ‘short-circuited implicature’ in Balinese. By this he means there are expressions/utterances with certain implicatures that are initially calculable via Grice’s maxims, but which then become widespread in the community and end up as ‘shared/common knowledge’. People’s inference of the relevant implicatures is then short-circuited (as if they do not calculate the inference), even though one may still use the original route of inference to understand what one hears. The process is comparable to the conventionalisation of conversational implicatures discussed in Traugott and König (1991). To illustrate this, using our case in Balinese, we can refer to the use of *ngajeng*. One may still use the original route of inference (44a), but may also now get the short-circuited implicature (44b):

- (44) a. When a speaker uses *ngajeng* ‘eat’ in reference to a *non-jaba* person, the speaker shows his/her recognition of the person’s high social status and accordingly (s)he is taken to be showing respect to the person. When *ngajeng* is used in reference to a *jaba* person, the speaker treats the *jaba* person as *non-jaba* and accordingly (s)he is taken to be honouring the person by means of an ‘upgrading’ strategy.

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<sup>22</sup> One might naturally infer, irrespective of the language one speaks, that saying someone died in an animal-like way is to dishonour him/her. However, there may be cultural or language-specific situations where this is not the case, if the dying is associated with certain animals; for example, in predominantly Christian, Western European cultures, the death of a lamb through slaughter has overtones of innocence, or lack of comprehension.

- b. When a speaker uses *ngajeng*, the speaker wants to show respect to the person referred to.

*Ngajeng* is an example of an *alus* form. All *alus* forms can be used in this way, and as a *means* to achieve a certain communicative *purpose*, which exploits their relationship with the vertical nature of the social hierarchy. Then a generalisation such as (45) can be made which states a relation between forms and intention in a (more) direct way (without chains of calculable inference). This seems to be arbitrary and therefore conventional in nature.

- (45) To show respect to someone, use *alus* forms (in reference to him/her).

As Morgan points out, a point comes when the convention of usage is reinterpreted as a convention of language. Indeed, children acquire the honorific use by the generalisation in (45) rather than (44). Their parents generally tell them to use *alus* forms to show respect to someone, without any reasonable explanation as to why that is the case. There is an interesting example from Balinese. There are two forms for ‘mouse’: *bikul* and *jero ketut*. Synchronically, it is an arbitrary fact there are two forms for ‘mouse’ that require different agreement patterns: *bikul* is treated as an animal (hence *low* agreement) (46a), whereas *jero ketut* is treated as *non-animal* and gets *non-jaba* agreement (46b)<sup>23</sup>:

- (46)
- |    |                         |                  |                     |                  |                               |
|----|-------------------------|------------------|---------------------|------------------|-------------------------------|
| a. | <i>Bikul</i> ,          | <i>alih-ang</i>  | <i>ibane</i> /      | ?* <i>ragane</i> | <i>tongos</i> (low agreement) |
|    | mouse                   | UV.find-APPL     | refl                | refl             | place                         |
|    | {-human(i)}             |                  | {-human(j)}         | /                | {upper-caste (i)}             |
| b. | <i>Jero ketut</i> ,     | <i>rereh-ang</i> | <i>ragane</i> /     | ?* <i>ibane</i>  | <i>genah</i> (high agreement) |
|    | mouse                   | UV.find-APPL     | refl                | refl             | place                         |
|    | { <i>medium(i)&amp;</i> |                  | { <i>human(i)</i> } | /                | {-human(i)}                   |
|    | <i>honoured(i)</i> }    |                  |                     |                  |                               |

‘You (mouse), find yourself a place’

A young Balinese learns somewhat arbitrarily that one must refer to a mouse by using either *bikul* or *jero ketut* (the latter if (s)he wants to show respect for it). Then (s)he must use agreement accordingly.

Now the question is this: Is the restriction on (dis)honorific use of the speech-level part of the grammar (language system) or not? If not, if it is purely a matter of *personal* use of the speech level by the speaker, then there is nothing more to say about (dis)honorifics. However, if we assume the phenomenon of (dis)honorifics is a

<sup>23</sup> The story seems to be this: the mouse/rat is thought of as having ‘power’ that can destroy the farmer’s rice. (Balinese people (used to) live mainly on agriculture.) Note that having power is ‘up’ or ‘high’ in the hierarchy (Lakoff and Johnson 1980), and accordingly, the mouse in this conception is not simply an animal. It is believed that if properly treated and well respected the mouse will not disturb the farmer.

conventional, not a totally personal matter, and in some cases may be arbitrary, then something must be said about the convention (though there remains the problem whether the convention is, in Morgan’s terms, *of language* or *of usage*).

A clear case where honouring is part of the conventions of language (part of the language system) is the example of *jero ketut* for ‘mouse.’ The noun *jero ketut* must have the *honouring-relation* and *medium-caste relation* (belonging to  $\neg jaba$ ) arbitrarily specified in its lexical entry. We can then say the grammar requires the correct agreement.

Honorifics in general can be thought of as conventional, although it is less clear whether we are dealing with a convention *of language* or a convention *of usage*. It is not always the case that one can use forms as ‘high’ as possible in an honouring discourse. As already noted, there is a convention that upgrading too far would not give rise to an honouring implicature, as in example (38a).

The generalisation in (45) can be thought of as arbitrary, in which case all *alus* forms will have honouring relations specified in their entries in addition to caste relations. Thus, for *ajeng* and *rayunin*, instead of (47a) and (48a), we may have (47b) and (48b):

- |      |                   |        |   |
|------|-------------------|--------|---|
| (47) | a. <i>ajeng</i>   | (alus) | ‘eat’(EATER <sub><i>i</i></sub> , EATEN)<br>{ $\neg jaba(i)$ }  |
|      | b. <i>ajeng</i>   | (alus) | ‘eat’(EATER <sub><i>i</i></sub> , EATEN)<br>SPEAKER <sub><i>k</i></sub><br>{ <i>human(i)</i> , <i>honour(k,i)</i> } |
| (48) | a. <i>rayunin</i> | (alus) | ‘eat’(EATER <sub><i>i</i></sub> , EATEN)<br>{ <i>upper-caste(i)</i> }   |
|      | b. <i>rayunin</i> | (alus) | ‘eat’(EATER <sub><i>i</i></sub> , EATEN)<br>SPEAKER <sub><i>k</i></sub><br>{ $\neg jaba(i)$ , <i>honour(k,i)</i> }  |

The entries for the *alus* forms *ajeng/rayunin* in (47b) and (48b) state that they are conventionally honorifics. As noted, they express the speaker’s honouring of the referent of the Agent argument (for example, the eater), not the addressee. The set of restrictions on their honorific use differs from that on their non-honorific use. For example, {*human(i)*} for *ajeng* (47b) is to account for the fact that it can take {*jaba(i)*} as in (37), and { $\neg jaba(i)$ } for *ngrayunin* (48b) is to account for the fact that it cannot take {*jaba(i)*} as in (38)).

However, strictly adopting (47b) and (48b) would mean we cannot capture the basic idea that *alus* forms may also be devoid of honouring implicatures, as represented by the entries in (47a) and (48a). We still need to capture the fact that the use of *alus* forms may simply mean the speaker matches the social fact of the status of the referent in a given context. To conclude, we need to relate the (a) and (b) representations. In the following subsections I consider a couple of methods for achieving this.

## 5.2.2. A lexical rule analysis

One way of capturing the idea that *alus* forms such as (47a) and (48a) are the ‘basic’ forms, and the ones in (47b) and (48b) are forms with honorific implicatures, is to appeal to a lexical rule.<sup>24</sup> For example, a lexical rule of honouring may be stated as in (49), which simply-stated means ‘when the speaker knows the social status of a referent, refer to it using a form that is conventionally used for a socially higher referent’.

## (49) Lexical rule of honouring

Take a lexical entry X (i.e. the input X1 in (i) and (ii) below) whose *backgr* restriction is either  $\neg jaba(i)$  or *upper-caste(i)*, then use X to express the speaker’s honouring of a referent of lower social status by relaxing the restriction by one step (cf. Figure 2).

i. X1           →    X2  
 { $\neg jaba(i)$ }    SPEAKER<sub>j</sub>  
                           {*human(i)*,  
                           *honour(j,i)*}

e.g. <i>ajeng 1</i> → <i>ajeng 2</i> { $\neg jaba(i)$ }   SPEAKER <sub>j</sub> { <i>human(i)</i> , <i>honour(j,i)</i> }
---

ii. X1           →    X2  
 {*upper-caste(i)*} SPEAKER<sub>j</sub>  
                           { $\neg jaba(i)$ ,  
                           *honour(j,i)*}

e.g. <i>rayunin 1</i> → <i>rayunin 2</i> { <i>upper-caste(i)</i> } SPEAKER <sub>j</sub> { $\neg jaba(i)$ , <i>honour(j,i)</i> }
---

The lexical rule (49) states the following: First, the form eligible as input for the rule is the *alus/high* form having either  $\neg jaba(i)$  or *upper-caste(i)*. This is easily understandable because honouring is a form of upgrading, hence high forms must be used. The output will be another *alus* form whose only difference lies in its background restrictions. Specifically, the honouring rule will add a new set of social relations involving the SPEAKER and the referent being honoured. For example, X2 (output) will have *honour(j,i)* where *j* is the index associated with the SPEAKER and *i* is the index of the person/thing honoured by the speaker. Second, the rule also relaxes the appropriateness conditions specified in the *backgr* layer of the input. For example, (49i) specifies the input form X1 as having  $\neg jaba(i)$ , illustrated by *ajeng1* shown in the box. The  $\neg jaba(i)$  specification in the input form says the form is used to refer to a *non-jaba* person. The rule then changes this to X2/*ajeng2*, with a restriction allowing the form to be used with a *jaba* referent with an honouring implication. As shown by the hierarchy in Figure 2, *jaba* and *non-jaba* together comprise the category *human*. In short, by the rule, *ajeng1* (input) will be turned into *ajeng2* (output), whose syntactic and semantic properties are just the same as *ajeng1* except that it now gets {*human(i)*, *honour(j,i)*}. In this way we account for the acceptability of sentence (37), with its pragmatic implicature of {*honoured(i)*} clearly stated in the *prag-str|backgr*. Since it is now

<sup>24</sup> Later, I will dispense with the lexical rules of honouring and dishonouring in favour of lexically specified disjunctive constraints. But, for expository purposes, I discuss them here. Moreover, I also wish to retain some of the key features associated with the output of the rules.



now *mati2*. Since *mati2* no longer has a restriction of  $\{jaba\}$  in its background, it is compatible with the subject *ida*, and in addition *mati2* has the implicature of dishonouring explicitly specified.

### 5.2.3. Lexically specified implicatures

The advantage of employing a lexical rule is that it allows two possible related entries: One with and one without honouring relations. So far our lexical rules of honouring and dishonouring seem to work well. However, there is a problem with cases of coordination such as the following:

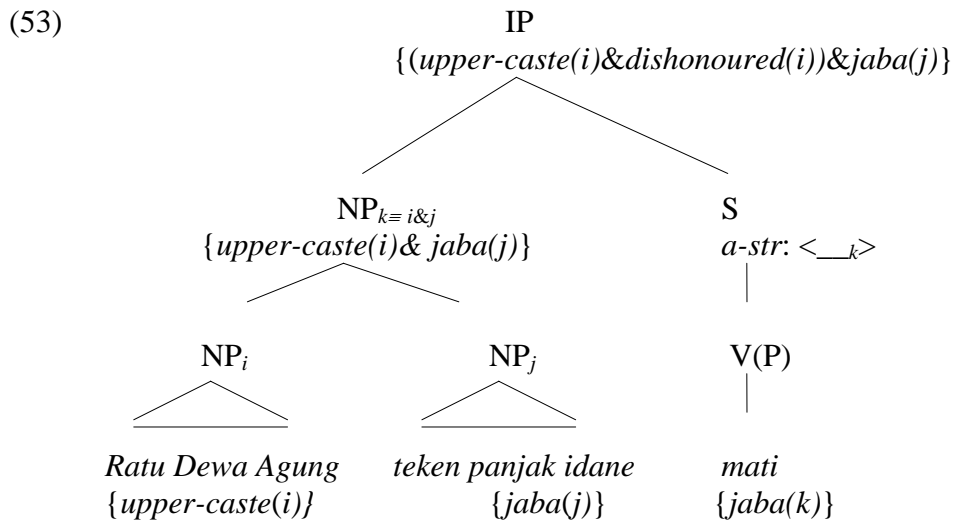
- (52)
- a. # [Ratu Dewa Agung *teken* *panjak* *ida-ne*]<sub>SUBJ</sub> *seda*  
 His Majesty and servant 3-DEF die  
 $\{upper-caste(i)\}$   $\{jaba(j)\}$   $\{upper-caste(i)\}$   
 ‘His Majesty and his servant(s) died’
- b. [Ratu Dewa Agung *teken* *panjak* *ida-ne*]<sub>SUBJ</sub> *mati*  
 His Majesty and servant 3-DEF die  
 $\{upper-caste(i)\}$   $\{jaba(j)\}$   
 ‘His Majesty and his servant(s) died’ ( *mati1* or *mati2*?)

As noted earlier, even when *seda* (52a) is thought of as *seda2*, the honouring use, it is still incompatible with *panjak*, which is  $\{jaba\}$ , for the same reason *rayunin* is incompatible with *Wayan* (there is too big a jump up). This poses no problem for the rules as formulated so far. The rule correctly predicts that neither *seda1* nor *seda2* can make sentence (52a) good.

Our rule, however, appears to have a serious problem in dealing with the *lumrah*/low *mati* in (52b). If *mati* is understood as *mati2* in this sentence then the sentence becomes acceptable. The problem is that it gives rise to a dishonouring implicature with respect to *Ratu Dewa Agung* ‘His Majesty,’ but possibly not with respect to *panjak* ‘servant.’ How do we account for this asymmetric effect of dishonouring implicatures? That is to say, with respect to the conjunct *Ratu Dewa Agung*, the verb *mati* is understood as *mati2*, whereas with respect to the conjunct *panjak*, the same verb is understood as *mati1*.

The dishonouring rule in (50) seems to be too powerful: It incorrectly suppresses the  $\{jaba\}$  restriction on *mati*. The conjunct *panjak*, which is  $\{jaba\}$ , still agrees with the verb *mati*. It also fails to capture the fact that, as far as the relation between this conjunct and the verb *mati* is concerned, there may be no implicature that the speaker is showing disrespect to the servant. In short, the  $\{jaba\}$  restriction must be still there, unsuppressed. The dishonouring relation in *prag-str* should be represented in such a way it constrains a certain index but not others. That is to say, we want to show that the background restriction of the verb *mati* must not impose a dishonouring restriction as far as *panjak* (index *j*) is concerned. We also want to capture the fact that the use of the verb *mati* does trigger a dishonouring implicature for the other conjunct, *Ratu Dewa Agung* (index *i*).

A truly satisfactory analysis that accounts for (52b) would require a substantial discussion of the theory of coordination, which is beyond the scope of the present work and deserves a separate study. However, it is clear we must ensure our representation correctly captures a dishonouring relation restricted to a certain index. What is needed in a case like (52b) is something like (53):



The structure in (53) suggests the following:<sup>26</sup> First, the verb itself, contrary to the lexical rule in (50), must not have its social restrictions overridden. Second, a coordinate-structure NP has multiple daughter NPs with their own indices and restrictions (*i* and *j* in (53)), whose mother's index is *k* (where  $k \equiv i \& j$ ).<sup>27</sup> In a normal context, (52b) would not be acceptable because the restriction imposed by the verb  $\{jaba(k)\}$  clashes with  $\{upper-caste(i)\}$ , but not with  $\{jaba(j)\}$ . However, assuming that conversational maxims are observed by the speaker, the sentence is acceptable, with the effect that a dishonouring implicature is generated. The implicature itself comes about due to the 'explicit' mismatch or deliberate violation of the social restriction, which in this case happens only to the index *i*. The violation is explicitly coded as a syntagmatic mismatch. That is, the use of a noun bearing  $\{upper-caste(i)\}$  (*Ratu Dewa Agung*) as an argument of a verb bearing  $\{jaba(k)\}$  (where *k* is identified as *i* and *j*) gives rise to a dishonouring effect only in relation to the referent of the NP bearing  $upper-caste(i)$ . Not the NP bearing  $jaba(k)$ , as shown by the top IP node in (53).

Instead of using a lexical rule, one way of handling the problem is to assume the implicature is conventional, and therefore lexically specified. The entry for *mati*, for example, can now be represented as (54):

<sup>26</sup> An in-depth analysis of Balinese phrase structure is given in Arka (2003: 70-115). The standard constituency tests (joint-fronting, material intervention, and gapping) suggest Balinese is a configurational language with relatively rigid word order. As seen in (53), a finite clause is represented as an IP, a projection of I (Inflectional category). While Balinese arguably has a VP, there is evidence the inflectional head of I does not directly take a VP complement. Rather it takes an S ('small, flat and non-finite clause') complement, which then dominates the V(P).

<sup>27</sup> Thanks to Rob Malouf for pointing out to me that this could be one way of approaching the problem.

- (54) /mati/ V <\_\_> 'die' (i)  
 SPEAKER<sub>j</sub> ADDRESSEE<sub>k</sub>  
 { (jaba(i) ∨ ¬human(i)) ∨  
 (¬jaba(i) & dishonour(j,i)),  
 jaba(k) }

(54) states the *lumrah*/low verb *mati* can take an NP argument (such as index *i*, later mapped onto subject) with the following two pragmatic specifications: First, { (jaba(i) ∨ ¬human(i)) } (meaning either *jaba* or *non-human*) without any implicature of dishonouring; or second, { ¬jaba(i) }, with the speaker's dishonouring of the *non-jaba* referent (i.e. index *i*) being implied. In other words, the basic idea is to allow a complex specification, where there is a set of restrictions associated with more than one index and dishonouring is implied with respect to only one index in the set. To achieve this, we must also assume the disjunctive restriction can be overridden by the specific conjunctive case. (Note that {jaba(k)} in (54) is a constraint associated with the addressee.)

The honouring cases can also be treated in the same way. Thus, *ajeng* and *rayunin* for example, which share their semantic content ('eat'), will have their background values shown in (55a) and (55b) respectively:

- (55) a. *ajeng* eat (EATER<sub>i</sub>, EATEN<sub>j</sub>)  
 SPEAKER<sub>k</sub>  
 { ¬jaba(i) ∨  
 (human(i) & honour(k,i)) }
- b. *rayunin* SPEAKER<sub>k</sub>  
 { upper-caste(i) ∨  
 (¬jaba(i) & honour(k,i)) }

The advantage of adopting a lexically specified implicature is that we still manage to retain the basic result of the output of the honouring rule in (49), in that the honouring uses of these forms have more relaxed constraints than their 'plain' uses (for example, the uses that simply match the social status of the referent). In this way, we still capture the ambiguity in the use of an *alus*/high verb, an honouring use or simply agreement with the social facts, without honouring being involved.

Similarly, the low reflexive *awak* can be thought of as having a disjunctive restriction (56a). Then, the dishonouring implicature of sentence (34), repeated as (56b), can be accounted for. (Note that *upper-caste* is subsumed by ¬jaba.)

- (56) a. /awak/ refl<sub>i</sub> SPEAKER<sub>j</sub>  
 { (jaba(i)) ∨  
 (¬jaba(i) & dishonour(j,i)) }
- b. *Paang ida ngantung awak* 'hang' <'3'i, 'self'i>  
 let 3 AV.hang self SPEAKER<sub>j</sub>  
 { upper-caste(i) } { jaba(i) } { upper-caste(i) &  
 dishonour(j,i) }
- 'Let him/her hang himself/herself'



The disjunctive restriction is a property of all words that have alternates. The exact nature of the *prag-str* is straightforward for those with two alternates (roughly *lumrah*/low and *alus*/high), but is complex for those with more than two alternates. I will not pursue further the exact nature of the *prag-str* specification for each word in Balinese. I believe I have laid down the basic foundation for a precise approach to the handling of the pragmatic constraints associated with speech levels/registers in Balinese. The same strategy can be applied to other languages having similar pragmatic agreement.

## 6. Conclusion

This paper has discussed pragmatic agreement in Balinese. I have shown how the traditional speech-level system can be captured in a lexically-based model of grammar. I have proposed that social information representing speech-participant relations (SPEAKER, ADDRESSEE, and possibly the referent of the event being talked about) is part of a layer called *prag-str*. The analysis treats the social information associated with the speech-level system in Balinese as a form of social predicate. The social predicate places a restriction on an index associated with an argument of a head predicate or the SPEAKER or ADDRESSEE. Dependency restrictions arise because a sentence accumulates the social relations borne by its daughters, and no clash is allowed. This is precisely formulated as the Pragmatic Consistency Principle. The constraint-based/unification approach adopted here allows us to account for the (un)acceptability of certain constructions due to pragmatic consistency violations (for example, reflexive binding which obeys syntactic binding conditions but is still unacceptable for pragmatic reasons). Given a rich lexical representation, it also enables us to capture the way in which the speech-level system is used by a speaker, in a conventional way, to produce dishonouring and honouring implicatures. The basic approach could be applied to other languages having similar pragmatic agreement. However, the underlying social predicates would vary according to the social structure in which the language was embedded.

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