Split Intransitivity in the Rotokas Language of Bougainville

Stuart P. Robinson

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B.4 ⟨2⟩[SUB, OBL]| β|| (Total: 35)

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Chapter 1

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This dissertation would never have been realized without the generous support of numerous individuals and organizations.

First and foremost, I must acknowledge the the generous funding of the Max Planck Society and the institutional support of the Max Planck Institute for Psycholinguistics in Nijmegen, The Netherlands. I also should thank Penelope Brown and Stephen Levinson for encouraging my return to linguistics after a three-year long hiatus as a software engineer. Although building websites for business-to-business automotive resale and personal wealth management taught me a great deal about the art and craft of programming, my intellectual life has been more fulfilling since my return to the linguistic sciences.

I owe a debt to numerous individuals in Papua New Guinea. First and foremost, I would like to thank Samuel Akoitai for providing accommodations in Togarao and to the rest of his family for their hospitality, especially his brothers, Samson, Paul, and Thomas Akoitai, who made Togarao feel like a home away from home. Second, this work would not have been possible without the assistance of the Rotokas-speaking community. Timothy Taureviri and Sera Mon worked full-time as language consultants, and their assistance in the transcription and analysis of Rotokas was invaluable. Yarorovira rutu! Finally, the friendly support of the staff at the National Research Institute in Port Morseby deserves mention, especially that of James Robins.

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Part I

Background
Introduction

2.1 Aims and Focus

The aim of this work is two-fold. First, it aims to provide a reasonably comprehensive grammar sketch of Rotokas, a Papuan (Non-Austronesian) language of Bougainville, Papua New Guinea. Although some grammatical description of Rotokas does exist (see §3.2.1 for a complete inventory), it is scattered across numerous smaller publications in somewhat obscure sources and is somewhat difficult to follow. Second, it focuses on a particular area of Rotokas grammar that poses challenges for grammatical theory, which is the nature of verbal inflection—more specifically, the existence of two mutually exclusive inflectional classes for subject agreement and tense/mood marking. Various aspects of the morphosyntax of Rotokas will be investigated toward the eventual conclusion that Rotokas possesses a typologically interesting form of split intransitivity. The nature of split intransitivity in Rotokas is somewhat novel and has implications for theories concerning split intransitivity more specifically and for theories of transitivity, valency, and the semantics-syntax interface more generally.

2.2 Fieldwork and Data

This thesis is based on materials obtained during four fieldwork trips to Bougainville during the course of a three-year Ph.D fellowship at the Max Planck Institute in Nijmegen, The Netherlands. The dates during which these fieldwork trips took place are provided below in Table 2.1.
2.2 Fieldwork and Data

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<td>16 July 2003</td>
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<tr>
<td>Second</td>
<td>27 February 2004</td>
<td>03 May 2004</td>
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<tr>
<td>Third</td>
<td>21 June 2004</td>
<td>29 August 2004</td>
</tr>
<tr>
<td>Fourth</td>
<td>12 June 05</td>
<td>06 October 2005</td>
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Table 2.1 Fieldwork Dates

A preliminary fieldwork trip was made in 2002 by Ger Reesink, who surveyed the status of the Papuan languages spoken on Bougainville, established a number of contacts, and made recommendations for potential fieldwork sites. During my first trip to Papua New Guinea, I followed up on these contacts and in Port Moresby met with the Minister of Parliament for the central district of Bougainville, the Honorable Samuel Akoitai, who is a native-speaker of Rotokas and whose father worked with missionary linguists for a number of years (most intensively during the sixties, but also during the seventies and eighties). He contacted various members of the Rotokas-speaking community in Bougainville and made arrangements for an extended stay in his home village of Togarao, a Rotokas-speaking village in the mountains of central Bougainville with a few hundred inhabitants.\(^1\) It is located in the Wakunai District, approximately 25 kilometers inland from Wakunai Station (the main access point for the feeder road that leads up into the mountains), as shown in Figure 2.1.

\(^1\)The village is identified as Togarau on same maps, based on a misidentification of the final vowel of the word.

Figure 2.1 Location of Togarao Village in Bougainville

The choice of Togarao as a field site was motivated by a number of considerations. One of these was continuity. Since prior descriptions of Rotokas were based on the variety spoken in...
Togarao, basing my own fieldwork there would make it possible to utilize older materials and assess the degree of change that has occurred in the language. Another consideration was that fieldwork would be easier to conduct in a community with prior exposure to language documentation work and the presence of consultants who were ready, willing, and able to participate in this type of work. The only real drawback of Togarao was its relative inaccessibility. The feeder road that runs from the coast to Togarao was poorly maintained and riddled with potholes that would wash out during heavy rains. In addition, there was no regularly available transport, which meant that when no vehicle was available, travel to and from the coast along the long and sometimes steep roads would have to be carried out on foot. However, the relative inaccessibility of the village had one benefit, which was that it has effectively reduced the amount of Tok Pisin and English spoken in the community, which has led to higher retention rates for Rotokas.

During my various stays in Togarao, I worked with native speakers of Rotokas in the local community to document and describe the grammatical structure of the language. My two main native speaker consultants were Timothy Taureviri and Sera Mon, shown in Figure 2.2.

![Figure 2.2 Rotokas Native Speaker Consultants: Timothy Taureviri (right) and Sera Mon (right)](image)

Timothy and Sera are both in their fifties and learned Rotokas as their first language. They both use it on a daily basis as their primary language. Both consultants were also fluent speakers of Tok Pisin. Sera’s husband is from the mainland of Papua New Guinea and Tok Pisin is their primary language of communication. Timothy Taureviri had previously worked with Irwin Firchow and Sera Mon is the daughter of Irwin Firchow’s primary consultant, David Akoitai. Caleb Karuru—another native speaker of Rotokas who worked with Firchow—also worked with

---

2During my final trip to Togarao, a road improvement project financed by the European Union was initiated which should significantly improve the quality of the feeder road.
2.3 Organization

This thesis is divided into two parts: a grammatical sketch of Rotokas and a more detailed analysis of a particular topic of theoretical interest—namely, split intransitivity.

The first part of this thesis is a grammatical sketch of Rotokas which sets the stage for the more theoretically oriented second part. The first chapter provides an overview of the phonology of Rotokas, which is typologically unusual for possessing a very small phoneme inventory. The second chapter looks at the word classes, or parts of speech, found in the language. The third chapter overviews Rotokas morphology, which is fairly extensive, looking first at nominal morphology and then at verbal morphology. The final chapter is concerned with syntax, focussing first on the noun phrase and then on clausal syntax (both intra- and inter-clausal).

The second part of this thesis is a detailed examination of the classification of verbs in Rotokas. It begins by raising questions about the nature of verbal subject agreement, which is split into two classes, $\alpha$ and $\beta$. A simple hypothesis equating $\alpha$ with intransitive subjects and $\beta$...
with transitive subjects is examined and rejected. The remaining chapters build up an alternative analysis. The valency patterns found in basic (i.e., non-derived) predicates are described and the various mechanisms for changing valency are catalogued and analyzed. On the basis of the findings from these two chapter, it is concluded that Rotokas possesses split intransitivity. The nature of split intransitivity in Rotokas is examined in more detail in the final chapter, which looks at the implications of the Rotokas data for theories of linking (the syntax-semantics interface) specifically and grammatical theory more generally.
In this chapter, background information about Rotokas is provided in order to place the language in a wider sociocultural perspective. Bougainville is situated within the context of Island Melanesia in §3.1 and background information about Rotokas and its speakers is provided in §3.2.

### 3.1 Bougainville and Island Melanesia

Rotokas is spoken in the central region of the island of Bougainville, which belongs to a region that is generally known as Island Melanesia, which lies to the east of mainland Papua New Guinea and encompasses the larger islands of New Britain, New Ireland, the Solomon Island Chains, as well as various smaller islands and atolls that are too numerous to list, as shown in Figure 3.1.
3.1 Bougainville and Island Melanesia Language Background

Figure 3.1 also shows the distribution of the two major groupings of languages spoken in the region: Austronesian and non-Austronesian (Papuan). Austronesian languages appear in pink while Papuan languages appear in blue. Casual inspection of the distribution of Austronesian and Papuan languages shows that Bougainville is somewhat unique in the region to the extent that it possesses a relatively higher proportion of Papuan languages (see §3.2.4 for details).

3.1.1 History of the Region

Australia-New Guinea has a history of settlement that is known from archaeological evidence to date back to at least 40,000 years before present (White and O’Connell, 1982). Archaeological evidence from the island of Buka (a smaller island immediately north of Bougainville) provides evidence of inhabitation dating as far back as 29,000 years ago (Wickler and Spriggs, 1988).

[INFO ON PREHISTORY]

Bougainville is named after the French explorer Louis Antoine de Bougainville, who was the first European to spot the island, when he sailed past it in 1768 during his circumnavigation of the globe following the Seven Years’ War (de Bougainville, 1772). Contact between Bougainvilleans and the West did not begin in earnest for almost one-hundred years, when the German New Guinea Company established control over Bougainville and Buka, Choiseul, the Shortlands and Treasury Islands in 1885 (Sack, 2005). Their control over this area did not extend to the islands farther south in the Solomon Island chain, which came under a British
protectorate in 1893 (with the eastern islands being added in 1899). In 1900, Germany transferred all of its claims in the Solomons other than Bougainville and Buka to Great Britain while Britain, in return, withdrew from Western Samoa. During the first world war, Australia occupied the island in 1914 and administered it as a League of Nations mandatory power from 1918 until the second world war. It was invaded by the Japanese in 1942 and between 1942 and 1945 was the site of an intense military campaign in the lead-up to the assault on the Japanese bastion of Rabaul (Gailey, 1991; Nelson, 2005).

After WWII, Australia resumed control over the island as a United Nations mandatory power until Papua New Guinea achieved independence in 1975. When PNG achieved independence Bougainville’s copper resources provided an early source of government revenue. Bougainville Copper Limited set up and ran the Panguna mine, which at the time was the world’s largest open-cut copper mine. The mine proved to be politically contentious due to disputes over land tenure and allegations of environmental damage (Vernon, 2005).

After negotiations between landowners and the owners of the mine broke down, Francis Ona formed the Bougainville Revolutionary Army, which began to sabotage mining operations. The campaign was successful to the extent that in May 1989 was shut down after the electric-power cables which supplied its electricity were blown-up by a group of indigenous landowners, led by Francis Ona. On June 26, 1989, the Papua New Guinean government declared a state of emergency, and in September, the Papua New Guinea Defense Force (PNGDF) was sent into Bougainville in order to quell resistance to the mine. Their heavy-handed response enraged Bougainvilleans and set in motion a chain of events that led to a decade-long military conflict, generally referred to as The Bougainville Crisis—or simply The Crisis—in which somewhere between 10,000-15,000 people lost their lives, either directly through fighting or indirectly through other causes (e.g., lack of medical attention).

A full history of The Crisis goes beyond the scope of this short and high-level overview of the history of Bougainville (see Dorney (1998); Regan and Griffin (2005) for more information). The main protagonists in this conflict were the Bougainville Revolutionary Army (BRA), the PNGDF, and The Resistance, a paramilitary group that defined itself in opposition to the BRA and aligned itself with the national government of PNG. Many Rotokas joined The Resistance after a foiled kidnapping attempt on the Akoitai family was carried out in Togarao by self-proclaimed BRA members, resulting in the death of one local and a number of BRA members. Despite their sympathy for the BRA cause, many members of the community feared reprisal as a result of this incident and felt that the PNGDF provided the best chance of protection from attack.

After years of hardship and bloodsheed, The Crisis officially ended in 1997, thanks in large
part to negotiations brokered by New Zealand. A Peace Agreement finalised in 2000 provided for the establishment of an Autonomous Bougainville Government, and a referendum in the future on whether the island should become politically independent. In 2005, elections for the first Autonomous Government were held and Joseph Kabui was elected President on June 15. During the same year, the rebel leader Francis Ona, whose sabotage of the mine set in motion the events leading to The Crisis, died after a short illness, leaving in question the leadership of the BRA and its remaining hardcore members who had refused to join the peace process. These individuals remain heavily armed and in control of the area surrounding the Panguna mine.

The effects of The Crisis on modern Bougainville can hardly be overstated. It has led to widespread social and economic change, the effects of which will continue to be felt in the coming years. These include a breakdown in law and order, which is only now beginning to be properly dealt with. In addition, it has led to a great deal of population displacement, which has disrupted the transfer of traditional customs and undermined respect for village elders. It has also led to significant decline in the educational system of the island, which was at one point one of the best in Papua New Guinea (?). This has led to a somewhat odd situation where the older generation is both more steeped in the traditional culture and better educated than the younger generation.

3.2 The Rotokas Language

This section provides background information on Rotokas in order to situate it within the wider linguistic scene of Bougainville and Island Melanesia. The prior literature on Rotokas is described in brief in §3.2.1; dialectal variation in the language is overviewed in §3.2.3; and the relationship of Rotokas to the other languages spoken in Bougainville is discussed in §3.2.4.

3.2.1 Prior Literature

All of the prior literature on Rotokas is the work of a missionary couple from the Summer Institute of Linguistics, Irwin Firchow and Jacqueline Firchow, who translated the Bible into Rotokas and also did some anthropological and linguistic work over the course of three decades (from the early sixties to the late eighties). A number of publications came out of their work, and these are listed in Table 3.1 along with a brief description of their content.
The primary motivation for the descriptive work was translation of the Bible into the language and the linguistic descriptions produced by Irwin Firchow reflect a limited background in academic linguistics. For example, postnominal modifiers are described as “prepositions” in Firchow (1987:85). They are, however, largely accurate as far as the linguistic facts are concerned and therefore provide a very useful starting point for more in-depth analysis.

To my knowledge, there has been no documentation of Rotokas carried out since the Firchows ceased working on the language. During the roughly thirty year gap between the publication of the above-listed materials and the start of my own research, the language has undergone some change as a result of various factors. One of the main factors is bilingualism in Tok Pisin/English as a result of increasing language contact. This is reflected by the growing number of loan words and the loss of a great deal of vocabulary associated with the traditional culture. This vocabulary is typically described by Rotokas speakers as toktok bilong bipo “words from before” and is retained only by elderly speakers of the language, who have first-hand knowledge of the traditional practices in which that terminology was embedded. For example, few younger speakers of Rotokas are familiar with the word keroroi ‘lean to’, which describes a traditional type of temporarily shelter used in the past during stays in the jungle (for example, while hunting possum), or with the word toara ‘market’, a loan word from Teop, which described a traditional practice of having bartering markets (presumably with the Teop, given the borrowing of the term from their language). The loss of some traditional vocabulary cannot be solely attributed to the loss of traditional practices, suggesting that other processes are at work (for example, language contact with the Keriaka or between dialects of Rotokas). In some cases, there is no readily forthcoming reason for a word’s obsolescence. For example, the word kare

<table>
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<tr>
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<td>Firchow and Firchow (1969)</td>
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<td>Firchow (1971)</td>
<td>Description of Rotokas nominals</td>
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<td>Firchow (1973)</td>
<td>Vocabulary of Rotokas (vowel length omitted from orthography)</td>
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<td>Firchow (1977)</td>
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<td>Firchow (1987)</td>
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<td>The Old Testament (1993)</td>
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| Table 3.1 Prior on and in Rotokas
has replaced *ragui* as a pluralizer for animate entities (animals, fish, etc.) (Firchow, 1987:40) and the word *isike* has replaced *kusike* as the generic term for rats.

Three books with monolingual Rotokas texts (collected from various native-speakers—primarily David Akoitai—and edited by Irwin Firchow) were published and these provide a snapshot of the variety of Rotokas then spoken. Firchow and Akoitai (1974) provides a number of folk tales and personal narratives while Firchow (1974b) provides descriptions of traditional customs. During my various trips to Bougainville, native speakers of Rotokas translated these monolingual Rotokas texts into Tok Pisin and they were systematically interlinear glossed in Toolbox for analysis.¹ The impression of those speakers who translated these materials was that there was some vocabulary in the texts that was no longer used but that they were overall very similar in form and structure.

### 3.2.2 The Speakers of Rotokas

Rotokas speakers are primarily subsistence agriculturalists. Their primary crops are sweet potatoes, yams, taro, and English potatoes. These are supplemented by local fruits and vegetables (such as coconuts, various varieties of banana, and a local green known as *kumul*) as well as some store-bought goods (such as tinned fish, rice, and noodles), paid for by money obtained through various cash crops, such as cocoa and vanilla. The formal economy of Bougainville was fairly small during the period when the fieldwork described in this thesis was carried out, having shrunk considerably as a result of The Crisis and the closing of the Panguna Mine. Opportunities for employment were limited and therefore government positions, such as that of a school teacher or local government functionary were highly sought after.

In village of Togarao, where I spent the majority of my time during my field research, Rotokas is the primary language of communication. It is the first language used by children and it is the preferred language in day-to-day life. It is used in daily conversation, village meetings, church, and numerous other contexts. However, the situation is somewhat different in Wakunai Station, a village through which the highway of East Bougainville runs. At Wakunai Station, the same dialect of Rotokas is spoken as the lingua franca but there are many more members of the community who do not speak Rotokas as well as travellers who pass through the area, and Tok Pisin is the primarily language of communication among these individuals. Tok Pisin is therefore more frequently used in and around Wakunai Station than in Togarao. The remoteness of villages such as Togarao therefore ensures less language contact and therefore less influence from Tok Pisin, but there is considerable transit between Wakunai Station and the more remote

¹Toolbox is the latest incarnation of Shoebox, and differs from the latter in only a few respects, such as its support for Unicode data storage and its ability to export data as XML (Robinson, 2007).
inland villages, particularly among young men (who frequently spend time with relatives on the coast in search of work and/or entertainment).

Although Rotokas remains the primary language of village life, and the first language learned by children, bilingualism in Tok Pisin is the norm among adult Rotokas-speakers. It is the lingua franca of Bougainville and is used on the local radio stations (for example, Radio Bougainville), in the school system, at school meetings, and at political events. Tok Pisin is also used as a lingua franca among the minority of villagers who, due to unusual circumstances, do not speak Rotokas. There are a few individuals who have not learned Rotokas but who are able to comprehend it. For example, the daughter of a local politician who was raised in an urban environment does not speak Rotokas, but she is able to understand it. When conversing with family members who speak Rotokas, she will speak Tok Pisin and others will speak to her in Rotokas or in Tok Pisin, depending upon their awareness of her passive competence of Rotokas and their own level of comfort in Tok Pisin.

There is some familiarity with English in the community, as well. English is the official language of instruction after grade three in the Papua New Guinea education system, and therefore anyone who has received formal education will have some familiarity with it, as well, although competence in the language varies dramatically and depends largely on levels of educational attainment, which is now generally fairly low. The educational system of Bougainville suffered considerably during The Crisis, as did most of the infrastructure on the island. As a result of the deterioration of the feeder road connecting Togarao to the coastal highway, Togarao has been less accessible than in the past and this has had an effect on the economy and the school system. At present, most adults finish grade eight but only a small percentage of students who finish grade eight go on to high school.

### 3.2.3 Dialectal Variation

The first—and only—systematic survey of the languages and dialects of Bougainville was carried out by the Summer Institute of Linguistics during the early sixties and is reported in Allen and Hurd (1963). On the basis of lexicostatistical comparison, it is claimed that there are four dialects of Rotokas, named after the geographical regions where they are spoken: Central, Aita, Pipipaia, and Atsilima. The names of the villages where these dialects are spoken and their approximate population size at the time of publication (the sixties) are provided in Table 3.2.²

²Some of the villages in Table 3.2 are not exclusively Rotokas-speaking. For example, Allen and Hurd (1963) observes that Teop is spoken in Tiaraka (Tearaka). According to Ruth Spriggs (a native-speaker of Teop collaborating with Ulrike Mosel on its documentation and preservation), there is considerable language contact between Rotokas and Teop in the villages of Tiaraka and Teohiupu.
### 3.2 The Rotokas Language

#### Language Background

<table>
<thead>
<tr>
<th>Dialect</th>
<th>Villages</th>
<th>Population (1960s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total: 3520</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Beteriopaia</td>
<td>131</td>
</tr>
<tr>
<td></td>
<td>Ibu</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>Keriana</td>
<td>92</td>
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<tr>
<td></td>
<td>Leikaia</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>Lesiopaia</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>Mapioro</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>Okowapaia</td>
<td>128</td>
</tr>
<tr>
<td></td>
<td>Ruruvu</td>
<td>129</td>
</tr>
<tr>
<td></td>
<td>Sirioripaiapia</td>
<td>194</td>
</tr>
<tr>
<td></td>
<td>Sisivi</td>
<td>190</td>
</tr>
<tr>
<td></td>
<td>Teakon</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>Tiaraka</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Togarao</td>
<td>216</td>
</tr>
<tr>
<td>Aita</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Koribori</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Kusi</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>Nupatoro</td>
<td>164</td>
</tr>
<tr>
<td></td>
<td>Osawiapa</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>Pokoia</td>
<td>217</td>
</tr>
<tr>
<td></td>
<td>Siribia</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>Tokai</td>
<td>112</td>
</tr>
<tr>
<td></td>
<td>Tsubiai</td>
<td>120</td>
</tr>
<tr>
<td>Pipipaia</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bulistoro</td>
<td>149</td>
</tr>
<tr>
<td></td>
<td>Kakaropaia</td>
<td>190</td>
</tr>
<tr>
<td></td>
<td>Pipipaia</td>
<td>264</td>
</tr>
<tr>
<td></td>
<td>Tutupaia</td>
<td>162</td>
</tr>
<tr>
<td>Atsilima</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Atsilima</td>
<td>112</td>
</tr>
</tbody>
</table>

**Table 3.2 Where Rotokas Dialects Are Spoken (Allen and Hurd, 1963)**

These figures must be interpreted with caution, given that they are fairly out-of-date. Migration and population growth will have changed the size and composition of these villages, and therefore the total size of the Rotokas-speaking community.\(^3\)

\(^3\)Wurm and Hattori (1981) provide a higher figure for the total population of Rotokas speakers—viz., 4,320. The
The geographical distribution of the dialects recognized in Allen and Hurd (1963) is provided in Figure 3.2, where colored dots representing the four dialects have been superimposed on village locations according to the following color scheme: Aita (yellow), Atsilima (green), Central (blue), and Pipipaia (red).

Figure 3.2 Dialects of Rotokas [based on Allen and Hurd (1963)]

The only dialect of Rotokas described in any detail is Central Rotokas. This dialect is labelled “Rotokas Proper” in Allen and Hurd (1963), but this term is eschewed here since it unnecessarily privileges one dialect of the language over the others. Aita Rotokas is mentioned in Firchow and Firchow (1969) and its consonant inventory described in passing. Robinson (2006) compares its segmental phoneme inventory to that of Central Rotokas and, on the basis of a comparison of cognate vocabulary in the two dialects, argues that the phoneme inventory of Aita Rotokas is conservative and that the smaller inventory of Central Rotokas arose by collapsing the voiced/nasality contrast in Aita Rotokas.

Details of the dialects and the criteria by which they are defined are otherwise lacking. No information is available concerning the Pipipaia dialect. Although Central Rotokas is relatively better described, information concerning its distribution is questionable. Native speakers of Rotokas describe another variety of Rotokas which they describe as Red River, suggesting that additional dialects may need to be recognized.

The most intriguing dialect of Rotokas identified in Allen and Hurd (1963) is Atsilima, which had 112 speakers in the village of Atsilima when it was surveyed, but its current status discrepancy between this figure and the figure provided by Allen and Hurd (1963) presumably owes to population growth, since by 2000 the population of Bougainville had doubled (141,161 according to PNG’s 2000 Census).
is unknown. Atsilima is possibly a dialect of Rotokas, but one that differs so much from it that Allen and Hurd (1963) describe it as a “sub-language” of Rotokas: “more distant than a dialect and yet not far enough removed to be a separate language” (Allen and Hurd, 1963:2).\(^4\) It is spoken in a language contact zone between Rotokas and Kereaka and is described by Rotokas-speakers as a “mix” of the two languages.

### 3.2.4 The Languages of Bougainville

Bougainville covers an area of 10,954 km\(^2\), measuring 120 km in length and between 65 and 95 km in width. Despite its relatively small size, Bougainville possesses an impressive amount of linguistic diversity—a total of approximately 25 languages (Allen and Hurd, 1963; Tryon, 2005). The languages and the approximate geographic area where they are spoken is provided in Figure 3.3.\(^5\)

---

\(^4\) Allen and Hurd (1963) define “sublanguage” operationally in terms of the percentage of shared vocabulary between speech varieties in the available word lists: “Speech groups which are 93% to 100% related belong to the same dialect, speech groups which are 76% to 92% related are different dialects of the same language, and speech groups which are 65% to 75% related are sub-languages of the same language.” (Allen and Hurd, 1963:5)

\(^5\) The best way of visualizing the geographical distribution of languages on Bougainville would be to plot each language variety on a village by village basis. The linguistic boundaries in Figure 3.3 should therefore be viewed largely as a convenient fiction that provides only a very rough impression of where the various languages are spoken.
A full listing of the languages of Bougainville—including the Austronesian languages—is provided in Table 3.3.

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>Name</th>
<th>Ethnologue Code</th>
<th>Speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Papuan</td>
<td>Konua (Kunua) / Rapoisi</td>
<td>kyx</td>
<td>3,500</td>
</tr>
<tr>
<td></td>
<td>Rotokas</td>
<td>roo</td>
<td>4,320</td>
</tr>
<tr>
<td></td>
<td>Keriaka</td>
<td>kjj</td>
<td>1,000</td>
</tr>
<tr>
<td></td>
<td>Eivo</td>
<td>eiv</td>
<td>1,200</td>
</tr>
<tr>
<td></td>
<td>Nasioi (Kieta)</td>
<td>nas</td>
<td>10,000</td>
</tr>
<tr>
<td></td>
<td>Nagovisi</td>
<td>nco</td>
<td>5,000</td>
</tr>
<tr>
<td></td>
<td>Siwai (Motuna)</td>
<td>siw</td>
<td>6,600</td>
</tr>
<tr>
<td></td>
<td>Buin (Telei)</td>
<td>buo</td>
<td>30,500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>62,120</td>
</tr>
<tr>
<td>Austronesian</td>
<td>Halia</td>
<td>hla</td>
<td>20,000</td>
</tr>
<tr>
<td></td>
<td>Haku</td>
<td>hao</td>
<td>5,000</td>
</tr>
<tr>
<td></td>
<td>Solos</td>
<td>sol</td>
<td>3,200</td>
</tr>
<tr>
<td></td>
<td>Petats</td>
<td>pex</td>
<td>2,000</td>
</tr>
<tr>
<td></td>
<td>Saposia</td>
<td>sps</td>
<td>1,400</td>
</tr>
<tr>
<td></td>
<td>Hahon</td>
<td>hah</td>
<td>1,300</td>
</tr>
<tr>
<td></td>
<td>Piva</td>
<td>tgi</td>
<td>550</td>
</tr>
<tr>
<td></td>
<td>Banoni</td>
<td>bcm</td>
<td>1,000</td>
</tr>
<tr>
<td></td>
<td>Tinputz</td>
<td>tpz</td>
<td>3,900</td>
</tr>
<tr>
<td></td>
<td>Teop</td>
<td>tio</td>
<td>5,000</td>
</tr>
<tr>
<td></td>
<td>Papapana</td>
<td>paa</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>Torau (Rorovana)</td>
<td>ttu</td>
<td>605</td>
</tr>
<tr>
<td></td>
<td>Uruava</td>
<td>urv</td>
<td>EXTINCT</td>
</tr>
<tr>
<td></td>
<td>Nehan (Nissan)</td>
<td>nsn</td>
<td>7,000</td>
</tr>
<tr>
<td></td>
<td>Takuu</td>
<td>nho</td>
<td>250</td>
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<tr>
<td></td>
<td>Nukumanu</td>
<td>nuq</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>Nuguria</td>
<td>nur</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>51,755</td>
</tr>
</tbody>
</table>

**Table 3.3** The Languages of Bougainville

Rotokas is one of eight Papuan languages spoken in Bougainville. The Papuan languages—which make up roughly a third of the languages in Bougainville—are listed below in Table 3.4.
3.2 The Rotokas Language

Language Background

<table>
<thead>
<tr>
<th>Name</th>
<th>Code</th>
<th>Pop.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Konua (Rapoisi)</td>
<td>kyx</td>
<td>3,500</td>
<td>Müller (1954)</td>
</tr>
<tr>
<td>Rotokas</td>
<td>roo</td>
<td>4,320</td>
<td>Firchow and Firchow (1969); Firchow (1987); Robinson (2006)</td>
</tr>
<tr>
<td>Keriaka</td>
<td>kjj</td>
<td>1,000</td>
<td>undescribed</td>
</tr>
<tr>
<td>Eivo</td>
<td>eiv</td>
<td>1,200</td>
<td>undescribed</td>
</tr>
<tr>
<td>Nasioi (Kieta)</td>
<td>nas</td>
<td>10,000</td>
<td>Hurd and Hurd (1970a,b); Hurd (1977)</td>
</tr>
<tr>
<td>Nagovisi</td>
<td>nco</td>
<td>5,000</td>
<td>Hostetler and Hostetler (1975)</td>
</tr>
<tr>
<td>Motuna (Siwei)</td>
<td>siw</td>
<td>6,600</td>
<td>Onishi (1994, 2002)</td>
</tr>
<tr>
<td>Buin (Telei)</td>
<td>buo</td>
<td>30,500</td>
<td>Laycock (2003)</td>
</tr>
</tbody>
</table>

Table 3.4 Papuan Languages of Bougainville (Allen and Hurd, 1963; Tryon, 2005)

Documentation of the Papuan languages of Bougainville is quite limited. Only Motuna and Rotokas have modern descriptive grammars available; Buin has a dictionary with a grammar sketch; Nasioi and Nagovisi have even more limited materials; Kunua has only one published description (essentially little more than a vocabulary with some grammatical notes); Eivo and Keriaka are completely undocumented.

There is some Austronesian-Papuan language contact at the edges of the Rotokas-speaking areas with Keriaka, another non-Austronesian language in the Rotokas family, and Teop, an Austronesian language belonging to North Bougainville network of the North-West Solomonic chain (Tryon, 2005). The degree of language contact between the Rotokas and surrounding language groups is difficult to gauge, given the absence of solid ethnographic description (Griffin, 2005). However, recent work by the author in collaboration with Ulrike Mosel has revealed a reasonable amount of lexical borrowing between Rotokas and Teop, covering a variety of semantic domains, which provides grounds for believing that contact between the two groups went far beyond casual contact and involved not only trade but also intermarriage.

The relationship of the Papuan languages to one another is a matter of controversy, as will be seen in the following section, which takes up the question of the genetic affiliation of the languages of Bougainville.

3.2.5 Genetic Affiliation

Rotokas is usually described as belonging to the East Papuan phylum, a somewhat controversial grouping of non-Austronesian languages first proposed by Wurm (1975a). Before discussing this grouping in greater detail, it is worthwhile to step back and examine the prior descriptive work upon which it is based.
On the basis of an examination of shared vocabulary (lexicostatistics), Allen and Hurd (1963:20) claim that Rotokas belongs to the Kunua-Keriaka-Rotokas-Eivo stock and to the Rotokas-Eivo family. (They define a stock as languages sharing 12% to 28% cognate vocabulary and a family as languages sharing 28% to 81% cognate vocabulary.) A pairwise comparison of all of the languages within the survey is provided in Table 3.5.

<table>
<thead>
<tr>
<th>Teop</th>
<th>Austronesian</th>
<th>Papuan</th>
</tr>
</thead>
<tbody>
<tr>
<td>53</td>
<td>Hahon</td>
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<tr>
<td>67</td>
<td>Tinputz</td>
<td></td>
</tr>
<tr>
<td>21</td>
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<td>17</td>
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</tr>
<tr>
<td>27</td>
<td>Petats</td>
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<td>40</td>
<td>Saposa</td>
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</tr>
<tr>
<td>32</td>
<td>Banoni</td>
<td></td>
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<td>24</td>
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<td>8</td>
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<td>6</td>
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<td>3</td>
<td>Siwai</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Buin</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.5 Cognate Percentage in the Languages of Bougainville (Allen and Hurd, 1963:21)

In Table 3.5 a horizontal line divides the two language groups: Austronesian towards the top from non-Austronesian languages towards the bottom. In addition, a vertical line divides the within-group comparisons from the between-group ones. As one would expect, rates of shared vocabulary are much higher within language groups than between them. (In addition, the rates are higher within Austronesian than within Papuan, which is consistent with the view that the Papuan languages have undergone greater diversification due to an earlier settlement date.) For example, the Austronesian languages Teop and Tinputz share 67% cognate vocabulary whereas the Non-Austronesian languages Rotokas and Kunua share 30% shared vocabulary. Teop and Rotokas were found to possess only 6% shared vocabulary (close to chance according to ?). The figures provided by Allen and Hurd (1963) can be transformed into distances matrices
to build a distance tree using the neighbor-joining tree method, an algorithm which seeks the optimal tree that preserves the relative distance between each of the terminal nodes (?). The result is provided in Figure 3.4.\(^6\)

Although there are problems—both practical (Laycock, 1970; McElhanon, 1987) and theoretical (?)—with establishing genetic relationships solely on the basis of shared vocabulary, the work of Allen and Hurd at least gives a rough impression of Rotokas’ relationship to some of the other language of Bougainville and will have to suffice until more complete descriptions of the various languages are available. Despite the sketchy materials available on the languages of Bougainville, a few authors have put forward tentative genetic groupings for Rotokas.

Based on prior work by Allen and Hurd (1963) and Greenberg (1971), Wurm (1972) provides the first explicit postulation of an East Papuan phylum:

The East Papuan phylum which comprises what has until quite recently (Wurm 1971) been regarded as the Bougainville Phylum, the Reef Islands-Santa Cruz phylum-level Family, and a number of isolates in the New Britain, New Ireland, Solomon Islands and Louisiade Archipelago areas, has been set up by the present writer (Wurm 1972a) on the basis of his own preliminary assessment of the available information and materials, and taking into account Greenberg’s (1971) findings

\(^6\)CITE MICHAEL HERE
as well . . .

The Bougainville branch of Wurm (1972)’s proposed East Papuan phylum is provided as a tree diagram in Figure 3.5.

![Tree Diagram of the Bougainville Branch of the East Papuan Phylum]

**Figure 3.5** Bougainville Branch of the East Papuan Phylum (Wurm, 1972, 1975a)

Ross (2001) questions the validity of Wurm (1975a)’s East Papuan phylum, noting that it is based on phonological similarity in word lists (rather than on regular sound correspondences) and uses typological similarities to bolster proposed groupings. This is problematic because such evidence could equally well reflect the results of language contact rather than inheritance. For this reason, Ross (2001) looks at pronouns, which appear to be less susceptible to wholesale borrowing (?). On the basis of the pronominal evidence, Ross (2001) concludes that there is no good evidence that the West and East Bougainville groupings of Wurm (1972) are related:

“Surprisingly, perhaps, the two groups recognised by Wurm on Bougainville seems to be unrelated to each other. Matthew Spriggs (pers. comm) points out that there has been a good deal of recent population movement on Bougainville, and that, although the two groups appear contiguous on the map, they were probably separated in traditional times by a large area of volcanic activity” (Ross, 2001:311).

Typological similarity has frequently been invoked in discussions of the East Papuan phylum, but, as observed in Dunn et al. (2002), the languages in the proposed grouping are quite heterogenous in terms of their typological features. The majority of them do, however, possess the following features:

**word order** the majority exhibit verb-final constituent order (typically Papuan), with the notable exception of Kuot; most also exhibit possessor-possessed order in possessive noun phrases.
pronoun systems an inclusive/exclusive distinction in the first person non-singular and a
dual number category are both widespread

verbal morphology largely segmentable; nominative/accusative; argument marking through
affixation (with a preference for suffixation)

Given the equivocal status of the evidence in favor of the East Papuan phylum, and the
absence of systematic sound correspondences that would lend themselves to traditional meth-
ods of reconstruction, Dunn et al. (2005) pursue a novel approach to the problem by using
methodologies taken from computational cladistics (Kitching et al., 1998). They constructed
a database of grammatical features for 15 Papuan and 16 Austronesian languages and, using
cladistic algorithms (maximum parsimony and NeighborNet), analyzed the potential phyloge-
netic relationship between these languages. When applied to the Austronesian languages, the
results of the technique provided a very close match to the classifications reconstructed using
the traditional comparative method. This provided the basis for extrapolating the technique to
the Papuan languages, where it was found that the classifications produced by cladistic algo-
rithms strongly reflected geography. This is interpreted as evidence of large-scale genealogical
clustering of the Island Melanesian languages that predates the Austronesian expansion. They
interpret their results as evidence in favor of the idea that the two language groups now located
on the Solomons and Bougainville separated from a common ancestor.
Part II
Grammatical Sketch of Rotokas
Published materials on the phonology of Rotokas are few in number. The primary references are Firchow and Firchow (1969), which describes its segmental phonology, and Firchow (1973), which covers some of the same ground and provides a few remarks concerning its supragemential phonology.

### 4.1 Phoneme Inventory

The phoneme inventory of Rotokas is one of the world’s smallest, as pointed out by Firchow and Firchow (1969): “The Rotokas languages ranks among those analyzed languages of the world with the least number of segmental phonemes [emphasis mine] (hereafter referred to simply as phonemes).” It should be stressed that Rotokas possesses the smallest known inventory of “segmental phonemes”, since the language has a vowel length distinction which effectively doubles its inventory of vowel phonemes (Maddieson, 1984).

#### 4.1.1 Vowels

Rotokas possesses a simple five-vowel system with a two-way length distinction—i.e., every vowel quality has a short and long variant. Firchow and Firchow (1969) describes the vowels as follows:

/a/ low central, open and unrounded
/e/ mid front, varies between mid close and mide open unrounded
/i/ high front, varies between the high close and high open and is unrounded
4.1 Phoneme Inventory

Phonology

/o/ mid back, mid close back rounded
/u/ high close back rounded

Unlike its consonant inventory, the vowel inventory of Rotokas is fairly typical from a typological perspective. As Maddieson (1984:126) notes, an inventory of five vowels is the most common sort (and represents 21.5% of the languages in the UPSID). Furthermore, the vowels in the inventory of Rotokas are the 5 most cross-linguistically common vowel qualities, as shown in Table 4.1.

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Num. of Languages</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>/i/</td>
<td>290</td>
<td>91.5%</td>
</tr>
<tr>
<td>/a/</td>
<td>279</td>
<td>88.0%</td>
</tr>
<tr>
<td>/u/</td>
<td>266</td>
<td>83.9%</td>
</tr>
<tr>
<td>/o/</td>
<td>139</td>
<td>43.8%</td>
</tr>
<tr>
<td>/e/</td>
<td>118</td>
<td>37.2%</td>
</tr>
</tbody>
</table>

Source: Maddieson (1984:125)

Table 4.1 Five Most Common Vowels in UPSID

Vowel length is distinctive (Firchow and Firchow, 1969) and all five vowels have both a short and long counterpart. The minimal pairs provided in Table 4.2 demonstrate the length distinction for all 5 vowels.

<table>
<thead>
<tr>
<th>Contrast</th>
<th>1st Syllable</th>
</tr>
</thead>
</table>
| /a/ vs. /aa/ | varuto ‘flesh, meat’  
               | vaaruto ‘deaf-mute’ |
| /e/ vs. /ee/  | kera ‘species of bird (similar to albatross)’  
               | keera ‘to call for, to beckon’ |
| /i/ vs. /ii/  | pigi ‘to squeeze’  
               | piigi ‘fig’ |
| /o/ vs. /oo/  | ovato ‘legendary wild man’  
               | oovato ‘type of ground’ |
| /u/ vs. /uu/  | tupesi ‘second’  
               | tuupesi ‘hoe’ |

Table 4.2 Minimal Pairs for Vowel Length
4.1.2 Consonants

Rotokas has only 6 consonants, the result of crossing three points of articulation (bilabial, alveolar, velar) with a voicing distinction (voiced vs. voiceless). These phonemes are listed according to their most characteristic allophonic realization in Table 4.3 (see §4.1.3 on the practical orthography used for Rotokas consonants).

<table>
<thead>
<tr>
<th>Voicing</th>
<th>Bilabial</th>
<th>Alveolar</th>
<th>Velar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voiceless</td>
<td>p</td>
<td>t</td>
<td>k</td>
</tr>
<tr>
<td>Voiced</td>
<td></td>
<td></td>
<td>g</td>
</tr>
</tbody>
</table>

Table 4.3 Rotokas Consonants

These IPA symbols are somewhat arbitrary, given that there is considerable allophonic variation of the consonant phonemes, as described in Table 4.4. This suggests that manner is only partially specified (or possibly unspecified).

<table>
<thead>
<tr>
<th>Voicing</th>
<th>Manner</th>
<th>Point of Articulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voiceless</td>
<td>Stop</td>
<td>Bilabial</td>
</tr>
<tr>
<td></td>
<td>Affricate</td>
<td>p</td>
</tr>
<tr>
<td></td>
<td>Fricative</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voiced</td>
<td>Stop</td>
<td>Bilabial</td>
</tr>
<tr>
<td></td>
<td>Flap</td>
<td>b</td>
</tr>
<tr>
<td></td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fricative</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nasal</td>
<td>m</td>
</tr>
</tbody>
</table>

Table 4.4 Allophonic Variants of Rotokas Consonants

Some aspects of the consonant inventory of Rotokas are fairly typical cross-linguistically. For instance, Maddieson (1984:39) observes that the most common situation among languages is the possession of two stop series (i.e., two set of stops that share the same “manner”) and three places of articulation, and that, if a language has a two stop series, it has a voice onset time contrast between them: over half (51.1%) of the languages in UPSID possess 2 stop series (51.1%) and 3 places of articulation (53.9%) and among languages with two stop series, 88.9% have a voice onset time contrast between them. However, other aspects of the inventory are atypical, such as the lack of a “primary nasal consonant” (Ferguson, 1966).
The two-way voicing distinction found in Central Rotokas appears to be the result of a collapsing of a three-way contrast between voiced, voiceless, and nasal stops, which is still found in Aita Rotokas (Robinson, 2006).

The following minimal pairs demonstrate the voicing distinctions for each point of articulation Firchow and Firchow (1969:273):

<table>
<thead>
<tr>
<th>Minimal Pair</th>
<th>Contrast</th>
<th>Word-Initial</th>
<th>Word-Internal</th>
</tr>
</thead>
<tbody>
<tr>
<td>/p/ vs. /v/</td>
<td>pore ‘to turn’</td>
<td>???</td>
<td></td>
</tr>
<tr>
<td></td>
<td>vore ‘to return’</td>
<td>???</td>
<td></td>
</tr>
<tr>
<td>/t/ vs. /d/</td>
<td>tupa ‘to lock’</td>
<td>???</td>
<td></td>
</tr>
<tr>
<td></td>
<td>rupa ‘dark’</td>
<td>???</td>
<td></td>
</tr>
<tr>
<td>/k/ vs. /g/</td>
<td>kapu ‘tight’</td>
<td>???</td>
<td></td>
</tr>
<tr>
<td></td>
<td>gapu ‘naked’</td>
<td>???</td>
<td></td>
</tr>
</tbody>
</table>

The most systematic allophonic variation is between [t] and [s]. The former occurs between all vowels except /i/ while the latter occurs only before /i/.

### 4.1.3 A Practical Orthography

A practical orthography for Rotokas was established by Irwin Firchow in collaboration with the Rotokas-speaking community. This orthography is used in a variety of pre-existing language materials already familiar to many native-speakers of the language (The Old Testament, 1993; The New Testament, 1982; Firchow and Akoitai, 1974; Firchow, 1974a,b). One aspect of the practical orthography that is typically overlooked by native-speakers is the distinction between short and long vowels, which is made by doubling a vowel letter.
Practical Orthography | IPA
---|---
a | a
aa | aa
e | e
ee | ee
g | g
i | i
ii | ii
k | k
o | o
oo | oo
p | p
r | r
s | s
t | t
u | u
uu | uu
v | v

Table 4.6 Practical Orthography for Rotokas

All examples provided here will be written using this practical orthography.

4.2 Suprasegmental Phonology

In this section the suprasegmental phonology of Rotokas is overviewed. The syllable structure is described in §4.2.1 and word stress is described in §4.2.2. Because reduplication provides additional evidence in favor of the analysis of Rotokas stress assignment as as a quantity-sensitive system, it is also discussed, in §4.2.3.

4.2.1 Syllable Structure

There is considerable cross-linguistic variation in permissible syllable types (Blevins, 1995:217). The syllable structure of Rotokas is fairly simple, consisting of an optional consonant onset and a vowel nucleus (with consonant codas prohibited): C(V). Rotokas therefore falls on the fairly restrictive end of the continuum, permitting only two of the 9 syllable types listed in Table 4.7.
4.2 Suprasegmental Phonology

Syllable Type

<table>
<thead>
<tr>
<th>V</th>
<th>CV</th>
<th>CVC</th>
<th>VC</th>
<th>CCV</th>
<th>CCVC</th>
<th>CVCC</th>
<th>VCC</th>
<th>CCVCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Table 4.7 Rotokas Syllable Types

The two syllable types combine more or less freely to form words of varying length, as illustrated in (1).

(1) a. *upe* ‘ceremonial hat’ [u.pe]
    b. *aatu* ‘flying fox’ [aa.tu]
    c. *varu* ‘meat’ [va.ru]
    d. *veeta* ‘bamboo’ [vee.ta]
    e. *ketoo* ‘seedling’ [ke.oo]
    f. *keetaa* ‘jaw’ [kee.taa]

A breakdown of the Rotokas lexicon according to word length (measured in terms of the number of segmental phonemes) is provided in Table 4.8.
Table 4.8 Word length in Rotokas Lexicon

Table 4.8 treats long vowels as a single segmental phoneme. Firchow (1987) analyzes long vowels as a sequence of two short vowels, effectively treating vowel length as an issue of syllable types rather than phoneme types. This analysis requires the postulation of complex vowel nuclei. In other words, according to such an analysis, the syllable structure of Rotokas would be slightly more complicated, as in (2).

\[(2) \ C(V_i(V_{i/j}))\]

The treatment of vowel sequences remains an issue for more in-depth investigation. Quite long vowel sequences can result from morphological processes, such as reduplication, as in (3), where a six vowel sequence results from the reduplication of the verb stem \(aio\) ‘eat’, or cliticization, as in (4).

\[(3) \ Ratu, \ aio-a \ ao \ aioaio-pa-ri-vere \ raivaro\]

Ratu  food-SG.N   RPRO.3.SG.N  eat.RDP-CONT-2SG\(\beta\)-NF  road
Ratu, as for food, eat it on the road.
4.2 Suprasegmental Phonology

(4) opi-vira ikau-ri vo-\text{vai}_o=\text{ia}
short-cut-ADV run-2SG SPEC-road=LOC
Take a shortcut running along this road.

4.2.2 Word Stress

Firchow (1973) devotes little attention to suprasegmental phonology, but it does provide some observations concerning the assignment of stress. He notes that stress is largely predictable on the basis of word length, measured in syllables.\(^1\)

In words consisting of 2-3 syllables, the first syllable is stressed, as in (5); in words consisting of 4 syllables, the first and third syllables are stressed, as in (6).

(5) a. \text{\textacute{e}}\text{\textacute{e}}-\text{pa} ‘house’
    
    b. \text{\textacute{e}}\text{\textacute{a}}-\text{to} ‘banana’

    c. \text{\textacute{u}}\text{\textacute{u}}-\text{\textacute{a}}\text{\textacute{a}}-\text{ve} ‘baylor shell’

(6) a. \text{\textacute{a}}\text{\textacute{a}}-\text{\textacute{e}}\text{\textacute{a}}-\text{ka}\text{\textacute{a}}-\text{si} ‘fire’
    
    b. \text{\textacute{a}}\text{\textacute{a}}-\text{ta}-\text{ri}\text{\textacute{a}}-\text{to} ‘fish’

Firchow (1973) also claims that in words consisting of 5 or more syllables, such as those in (7), the third-from-the-last syllable is stressed most strongly. This observation is questionable and is further complicated in the case of (7b) by the fact that the third-from-the-last syllable consists of a vowel sequence (\text{ai}).

(7) a. \text{\textacute{a}}\text{\textacute{a}}-\text{ru}-\text{\textacute{u}}\text{\textacute{u}}-\text{vi}\text{\textacute{a}}-\text{ra} ‘slowly’

    b. \text{\textacute{a}}\text{\textacute{a}}-\text{\textacute{p}}o-\text{\textacute{p}}o-\text{\textacute{e}}\text{\textacute{e}}-\text{\textacute{p}}ai\text{\textacute{a}}-\text{ra}-\text{ra} ‘white-men’

Firchow also notes that there are exceptions to these rules, primarily relating to long vowels, although he does not clarify the nature of these exceptions. One such class of exceptions are bisyllabic words in which the first syllable consists of a single short vowel and the second syllable consists of a single long vowel, such as those listed in Table 4.9. In these words, primary stress falls on the second syllable rather than the first.

\(^1\)Note that Firchow (1973) does not provide syllable boundaries. These are based on the description of syllable structure in Firchow and Firchow (1969).
Table 4.9 Bisyllabic Words Stressed on the Second Syllable

<table>
<thead>
<tr>
<th>Words</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>kapoo</td>
<td>“poor, destitute”</td>
</tr>
<tr>
<td>kapuu</td>
<td>“dumb, (not) speaking”</td>
</tr>
<tr>
<td>ketoo</td>
<td>“plant which came up from seed”</td>
</tr>
<tr>
<td>kokee</td>
<td>“peek through a blind or crack”</td>
</tr>
<tr>
<td>kokoo</td>
<td>“to carry, a plate”</td>
</tr>
<tr>
<td>kopii</td>
<td>“die, very ill”</td>
</tr>
<tr>
<td>koroo</td>
<td>“to have hampered speech”</td>
</tr>
<tr>
<td>kupii</td>
<td>“pupa of beetle”</td>
</tr>
<tr>
<td>kuroo</td>
<td>“penis”</td>
</tr>
<tr>
<td>kusii</td>
<td>“cool off”</td>
</tr>
<tr>
<td>repoo</td>
<td>“hiccup”</td>
</tr>
<tr>
<td>roro</td>
<td>“to suckle, to drink”</td>
</tr>
<tr>
<td>rugoo</td>
<td>“think, reason, hope”</td>
</tr>
<tr>
<td>tavoo</td>
<td>“wall up with sago palm leaves”</td>
</tr>
<tr>
<td>tokii</td>
<td>“tight, binding”</td>
</tr>
<tr>
<td>torii</td>
<td>“bamboo”</td>
</tr>
<tr>
<td>turaa</td>
<td>“sew up sago leaves”</td>
</tr>
<tr>
<td>visii</td>
<td>“you (pl.)”</td>
</tr>
<tr>
<td>voroo</td>
<td>“hunt with dogs”</td>
</tr>
</tbody>
</table>

This is a systematic class of exceptions, and can be explained if we assume that stress assignment in Rotokas is quantity-sensitive (Hayes, 1995). According to such an analysis, word stress in Rotokas is a fixed system in the sense that the location of stress is predictable by general rules. Furthermore, it appears to be governed purely by phonological factors (distance from word edges, syllable weight, etc.) and not by morphological factors such as the distinction between roots and suffixes.

Given a few reasonably well motivated assumptions, stress assignment in Rotokas can be calculated in a fairly straightforward fashion. The first step in calculating stress assignment in Rotokas is to parse a candidate word into feet, following the assumptions described in (8).

(8)  
- foot construction proceeds from left to right  
- foot construction is quantity-sensitive  
- the foot is trochaic  
- primary stress falls on the leftmost foot

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4.2 Suprasegmental Phonology

Given the assumption of trochaic feet, a proper foot can therefore take one of the forms provided in Table 4.10, where ‘H’ stands for heavy syllables, ‘L’ for light syllables, and stressed syllables appear in boldface.

<table>
<thead>
<tr>
<th>Light Syllable</th>
<th>Heavy Syllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ft σ σ L</td>
<td>Ft σ H</td>
</tr>
</tbody>
</table>

Table 4.10 Trochaic Feet

Given the previous assumptions, word stress is predictable: primary stress falls on the first syllable of the first foot and secondary stress falls on the first syllable of all subsequent feet. Degenerate feet (i.e., syllables that cannot be parsed into a well-formed trochaic foot) are unstressed.

These principles explain the patterns of word stress observed for the various words mentioned by Firchow (1973), as shown in Table 4.11: utave ‘baylor shell’ in (5) parses into one trochaic foot consisting of two light syllables; atarito ‘fish’ parses into two feet, but since the third syllable cannot by itself form a proper trochaic foot (cf. Table 4.10), the second foot is degenerate and therefore cannot receive secondary stress.

<table>
<thead>
<tr>
<th>LL</th>
<th>LLL</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrWd</td>
<td>PrWd</td>
</tr>
<tr>
<td>Ft σ σ ke pa</td>
<td>Ft σ σ σ ta ve</td>
</tr>
<tr>
<td>Ft</td>
<td>Ft Ft</td>
</tr>
</tbody>
</table>

Table 4.11 Metrical Structure for Bi- and Trisyllabic Words

As noted in Firchow and Firchow (1969), vowel length interacts with stress assignment. This can be seen most clearly in the case of CVCV: roots, which receive stress on the second
syllable rather than the first. According to the assumptions previously given in (8), this follows from the fact that such words will necessarily begin with a degenerate foot, as shown by (9)).

\[
\begin{array}{c}
\text{(9) PrWd} \\
\fbox{Ft} \quad \fbox{Ft} \\
\sigma \quad \sigma \\
to \quad rii \\
L \quad H
\end{array}
\]

Vowel length in the first two syllables is decisive in stress assignment. Only words beginning with a light syllable followed by a heavy syllable will have primary stress on the second syllable. All other types of words will have primary stress on the first syllable. This is demonstrated in Table 4.12 for words beginning with HL or HH.

<table>
<thead>
<tr>
<th>LL</th>
<th>LH</th>
<th>HL</th>
<th>HH</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrWd</td>
<td>PrWd</td>
<td>PrWd</td>
<td>PrWd</td>
</tr>
<tr>
<td>Ft</td>
<td>Ft</td>
<td>Ft</td>
<td>Ft</td>
</tr>
<tr>
<td>σ</td>
<td>σ</td>
<td>σ</td>
<td>σ</td>
</tr>
<tr>
<td>to</td>
<td>rii</td>
<td>pii</td>
<td>ro</td>
</tr>
<tr>
<td>ke</td>
<td>pa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>L</td>
<td>H</td>
<td>L</td>
</tr>
</tbody>
</table>

Table 4.12 Metrical Structure of HL and HH Words

There are two additional considerations that lend support to this account of word stress in Rotokas. The first is that stems and word consist minimally of a trochaic foot. In other words, there are no content words consisting of only a single syllable and only a few function words consisting of a single syllable. This is a very robust generalization as can be seen from the figures provided in Table 4.13.
4.2 Suprasegmental Phonology

<table>
<thead>
<tr>
<th>Word Type</th>
<th>Example</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV</td>
<td><code>ra</code> ‘complementizer’</td>
<td>3</td>
</tr>
<tr>
<td>CVV</td>
<td><code>roo</code> ‘to saw’</td>
<td>27</td>
</tr>
<tr>
<td>CVV</td>
<td><code>toe</code> ‘to cut’</td>
<td>67</td>
</tr>
<tr>
<td>CVVV</td>
<td><code>gasi</code> ‘to break’</td>
<td>411</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>4689</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>5197</td>
</tr>
</tbody>
</table>

Table 4.13 Number of Stems By Number and Type of Syllables

The 3 exceptions to the trochaic foot minimality requirement are all function words: the complementizer `ra`, the third person singular masculine pronoun `va`, and the deictic particle `vo` ‘here’. Even these minor exceptions can potentially be explained away by analyzing them as clitics rather than full words. It would then be possible to say that all morphology consisting of less than a trochaic foot attaches to a minimal word.

The second consideration that supports the postulation of a quantity-sensitive system of metrical phonology in Rotokas is reduplication, which is analyzed in the following section.

### 4.2.3 Reduplication

Reduplication provides additional evidence in favor of the postulation of quantity-sensitive metrical feet in Rotokas. It is a fairly productive process in the language, particularly for verbal stems, where it has an interative meaning, and to a lesser extent for nominal stems, where it has a distributive meaning.

In the simplest case, reduplication consists of the repetition of an entire stem—that is, full reduplication. Full reduplication is found with bisyllabic stems in which both syllables are light and monosyllabic stems in which the single syllable is heavy. The reduplication of the stems `eri` ‘dig’, `roo` ‘saw’, and `gasi` ‘break’ is illustrated in (10) through (12).

(10) Rake `evao-a erieri-pa-re` evao `eripa-a=ia`
    `tree-SG.N dig.RDP-CONT-3SG.M_β tree` dig-`DERIV-SG.N=LOC`
    Rake is digging that tree with a shovel.

(11) `ragai kookai rooroo-pa-a-voi` ra rera ori-sia
    `PRO.1.SG rooster saw.RDP-CONT-1SG_β-PRES_β COMP PPRO.3.SG.M cook-DEP.SEQ`
    I sawed the rooster and cooked it.

(12) `Perairi rauru-va gasigasi-re-vo` uvare oira=ia ora-toga-ro-e
    `spear-SG.F break.RDP-3SG.M_β-IP_β because PPRO.3.SG.F RR-spear-3SG.M_α-IP_α`
    Perairi broke the spear because he speared himself with it.
Longer stems do not reduplicate in full but instead show partial reduplication. For example, the stems parikou ‘crossed’ and ragete ‘be weak’ do not reduplicate in full; only the first two syllables are reduplicated, as illustrated in (13) and (14).

(13) *Savere takei pariparikou-vira pura-re-voi rera*

Savere wall cross.RDP-ADV make-3SG.M_β-PRES_β PPRO.3.SG.M

vo-kepa-aro=ia

SPEC-house-POSS=LOC

Savere is making thatched walls on his house.

(14) *kakae-to rageragete-pie-pa-i-voi riako-va rera*

child-SG.M weak.RDP-CAUS-DERIV-3PL_β-PRES_β woman-SG.F PPRO.3.SG.M

pitu-pa-oro

hold-CNT-DEP.SIM

The women are weakening the child by holding him so much.

At this stage, the generalization appears to be that reduplication consists of copying the first two syllables of the reduplicated stems; however, the behavior of stems with a long vowel in their first and/or second syllable does not conform to such a simple generalization. When the first syllable of a reduplicated stem is long, the reduplicant consists of only the first syllable, as illustrated for the verb stem *tuusi* ‘shake’ in (15) and the verb stem *rookaa* ‘distribute’ in (16).

(15) *Tori riro-vira tuutuusi-pa-ro-u uriri-pa-oro*

Tori big-ADV shake.RDP-CNT-3SG.M_α-PRES_α be.afraid-CNT-DEP.SIM

Tori is shaking greatly with fear.

(16) *Raviata oira-ra=pa aio-ara roorookaa-pa-re*

Raviata man-PL.N=BEN food-PL.N distribute.RDP-CNT-3SG.M_β

Raviata distributed food to everyone.

When the first syllable of a stem is short and the second syllable long, the long vowel of the second syllable is shortened, as illustrated for the verb stem *rugoo* ‘think’ in (17).

(17) *Riopeiri, aaro-vira rugorugoo-pa-u*

Riopeiri excessive-ADV think.RDP-CNT-2SG_α

Riopeiri, you think too much.
4.2 Suprasegmental Phonology

Before attempting to produce a generalization that will cover all of the various attested cases, it pays to revisit the metrical structure of words described in §4.2.2. According to the rules given in (8), the metrical structure of the three stem patterns illustrated in (15) through (17) is provided in Table 4.14.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>HL</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>HH</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>LH</td>
<td></td>
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<tr>
<td>PrWd</td>
<td>PrWd</td>
<td>PrWd</td>
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<tr>
<td>Ft</td>
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<td>Ft</td>
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</tbody>
</table>

Table 4.14 Metrical Structure of HL, HH, and LH Stems

If reduplication is described in terms of the units of metrical phonology, a simple and elegant generalization of reduplication can be maintained, which is simply that reduplication copies the first foot (rather than the first two syllables). Since in Rotokas a foot consists of either a heavy syllable or two light syllables (cf. §4.2.2), the reduplication of stems with a heavy syllable falls out naturally, as can be seen in Table 4.15.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PrWd</td>
<td>PrWd</td>
<td>PrWd</td>
<td></td>
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<tr>
<td>Ft</td>
<td>Ft</td>
<td>Ft</td>
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</tr>
</tbody>
</table>

Table 4.15 Metrical Structure of Reduplicated HL, HH, and LH Stems
5.1 Root, Stem, and Word Classes

Before discussing the various word classes found in Rotokas, it is useful to distinguish between root, stem, and word classes. The distinction between these three units is as follows (Payne, 1997):

**Root** A root is an unanalyzable form that expresses the basic lexical content of the word.

**Stem** A stem consists minimally of a root, but may be analyzable into a root plus derivational morphemes.

**Word** A word is a minimal stand-alone unit, which consists of stems and inflectional morphemes.

Consider (18). It is a minimal sentence in the sense that none of its elements can be freely omitted (since direct objects cannot be free elided) and it consists of only two words: the noun *koie* and the verb *kopiipieeva*. 
5.1 Root, Stem, and Word Classes

Word Classes

(18) koie kopii-pie-e-va
    pig    die-CAUS-3SG.F β-RP β

She killed the pig.

In (18), the word *kopiipieeva* ‘She killed’ is morphologically complex. It is based on the verb stem *kopiipie* ‘kill’, which is ultimately derived from the verb root *kopii* ‘die’; however, the word *koie* ‘pig’ is morphologically simple, consisting of only a single morpheme. It is therefore a root, a stem, and a word simultaneously. The analysis of the two words into root, stem, and word is provided in Figure 5.1.

<table>
<thead>
<tr>
<th>Morphologically Simple</th>
<th>Morphologically Complex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word</td>
<td>Word</td>
</tr>
<tr>
<td>Stem</td>
<td>Stem</td>
</tr>
<tr>
<td>Root</td>
<td>Root</td>
</tr>
<tr>
<td>koie</td>
<td>kopii − pie − e − va</td>
</tr>
</tbody>
</table>

Figure 5.1 Breakdown of Words from (18)

A full account of word classes in Rotokas should provide an analysis of the relationship between root and stems on the one hand and stems and words on the other. It would provide an explicit account of why some roots are capable of functioning as a noun or as a verb whereas others can only function as one or the other, but not as both. For example, the root *atari* ‘fish’ is capable of functioning as a verb, as in (19), or a noun, as in (20).

(19) Jisu  Pita  tavi-re-va  oo iava riro-vira atari-ro-epa
    Jesus Peter tell-3SG.M β-RP β hence  big-ADV fish-3SG.M α-RP α
    Jesus told Peter so that he would go catch many fish.

(20) opuruva ivara iava vuvureo-to atari-to site-pa-io-vo  osa
    canoe  above POST flying-SG.M fish-SG.M watch-CONT-IPL.EXCL-IP β as
    papa-pa-re-vo toru kou-ro ivara=ia
    fly-3SG.M β-IP β wave CLASS-PL.CL above=LOC
    From inside of the canoe, we look at the fish as he flies on top of the wavers.

Given roots such as *atari* ‘fish’, it is necessary to accept that some roots are underspecified with respect to their stem class membership. However, it is not the case that roots are completely unspecified for word class membership—i.e., there is a distinction between nouns and verbs within the lexicon itself (Evans, 2006)—since there are a number of stems (e.g., *kakae* ‘child’).
that can be used nominally but not verbally. The primary concern of this chapter will therefore be the relationship between stem and word classes.

The issue of root versus stem will arise later in the case of “labile verbs”—that is, verbs that show two patterns of valency, either taking a single core argument and showing $\alpha$ or taking two core arguments and showing $\beta$ agreement. For example, the verb root $kavau$ ‘to have’ has two meanings, “to be born” or “to give birth”. The meaning “to be born” shows $\alpha$ agreement while the meaning “to give birth” shows $\beta$ agreement. The question is whether there is a single, semantically and grammatically underspecified root from which the two meanings (and their associated subcategorization and agreement) derive. For a more theoretically oriented discussion of this issue and its syntactic representation, see Chapter 12.

### 5.2 An Inventory of Rotokas Word Classes

In the following sections, the various word classes of Rotokas are enumerated and described in turn. Some of these word classes can be grouped together to form major word classes. For example, nouns, classifiers, and pronouns could be grouped together into a broader category of nominals, as in (21).

(21) Nominal
    
    Noun  Classifier  Pronoun

This suggests that word classes can be organized hierarchically into inheritance classes, such that the behavior of a parent class (e.g., Nominal) is inherited by a child class (e.g., Pronoun). There is considerable debate concerning the feasibility of this exercise, since it has been claimed that any attempt to ground the exercise in purely distributional criteria will produce almost as many subclasses as items considered in the analysis (Croft, 2006). I will not attempt to construct such an inheritance hierarchy for all of the word classes discussed here, since it raises a number of theoretical questions (e.g., Is multiple inheritance permissible?) that go beyond the scope of the more modest descriptive goals of this section (but see Davis (2001) for a theoretical approach based on HPSG).

#### 5.2.1 Nouns

The defining feature of nouns is their ability to inflect for number and gender. Nouns are an open class in Rotokas, since numerous words from Tok Pisin have been borrowed into Rotokas.
(with varying degrees of phonological transformation as the larger phonological inventory of Tok Pisin is shoe-horned into the smaller inventory of Rotokas). A handful of Tok Pisin loan nouns are listed in Table 5.1.

<table>
<thead>
<tr>
<th>Noun</th>
<th>Gloss</th>
<th>Tok Pisin Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>peepa</td>
<td>‘paper’</td>
<td>pepa</td>
</tr>
<tr>
<td>pike</td>
<td>‘gum’</td>
<td>pike</td>
</tr>
<tr>
<td>reeta</td>
<td>‘ladder’</td>
<td>reta</td>
</tr>
<tr>
<td>reviti</td>
<td>‘rabbit’</td>
<td>reviti</td>
</tr>
<tr>
<td>rigi</td>
<td>‘ring’</td>
<td>ring</td>
</tr>
<tr>
<td>sikuru</td>
<td>‘school’</td>
<td>skul</td>
</tr>
<tr>
<td>sipuru</td>
<td>‘spoon’</td>
<td>sipuru</td>
</tr>
<tr>
<td>siveri</td>
<td>‘cement’</td>
<td>simen</td>
</tr>
<tr>
<td>tevoro</td>
<td>‘table’</td>
<td>tebol</td>
</tr>
<tr>
<td>tisa</td>
<td>‘teacher’</td>
<td>tisa</td>
</tr>
<tr>
<td>valusi</td>
<td>‘plane’</td>
<td>balus</td>
</tr>
</tbody>
</table>

Table 5.1 Rotokas Nouns Borrowed from Tok Pisin

The use of these borrowed nouns is illustrated in (22) and (24). Note that the borrowed noun *tisa* ‘teacher’ occurs with ‘native’ (i.e., non-borrowed) inflectional morphology: the singular masculine suffix -*toa* and the indefinite suffix -*vai* (see §6.1).

(22) _vovokio=ia siveri pura-pa-i-voi reo sipo-pa kepa=ia_
    today=LOC cement make-CONT-3PLβ-PRESβ talk send-DERIV house=LOC
    Today they’re laying cement for the telephone building.

(23) _ragai sipuru=ia aio toke-pa-ra-i kakae vure=pa_
    PPRO.1.SG spoon=LOC food serve-CONT-1SGα-PRESα child ANIM.PL=BEN
    I serve food to the children with a spoon.

(24) _oisio ruipa-pa-i-e ra tisa-toa-vai ou-pe ra_
    COMP want-CONT-1PL.EXCL-IPα and teacher-SG.M-INDEF get-1PL.EXCL+SUB and
    voeao sikuru-pie-pa-re-ve
    PRO.3.PL.M school-CAUS-CONT-3SG.Mβ-SUB
    We want to get a teacher to school them [the children].
### 5.2 An Inventory of Rotokas Word Classes

#### 5.2.1.1 Gender and Noun Subclasses

On the basis of the form of number inflection, Rotokas nominals can be broken down into a number of distinct classes, which are listed below in Table 5.2.\(^1\)

<table>
<thead>
<tr>
<th>Class</th>
<th>Class</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>Masculine</td>
<td>-/to</td>
<td>to(a)</td>
<td>-toarei</td>
</tr>
<tr>
<td></td>
<td>Feminine</td>
<td>-va</td>
<td>-rire</td>
<td>riako</td>
</tr>
<tr>
<td>1b</td>
<td>Masculine</td>
<td>-to(a)</td>
<td>-toarei</td>
<td>vure</td>
</tr>
<tr>
<td></td>
<td>Feminine</td>
<td>-va</td>
<td>-rire</td>
<td>riako</td>
</tr>
<tr>
<td>1c</td>
<td>Masculine</td>
<td>-to(a)</td>
<td>-toarei</td>
<td>-ra</td>
</tr>
<tr>
<td></td>
<td>Feminine</td>
<td>-va</td>
<td>-rire</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Masculine</td>
<td>-to(a)</td>
<td>-toarei</td>
<td>kare(^*)</td>
</tr>
<tr>
<td></td>
<td>Feminine</td>
<td>-va</td>
<td>-rire</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Masculine</td>
<td>-to(a)</td>
<td>-toarei</td>
<td>-ara</td>
</tr>
<tr>
<td>4</td>
<td>Feminine</td>
<td>-va</td>
<td>-rire</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Neuter</td>
<td>-a</td>
<td>-(a)rei</td>
<td></td>
</tr>
</tbody>
</table>

* the archaic form of *kare* is *ragui*

**Table 5.2 Nominal Stem Class Suffixes**

Classes 1 and 2 make a semantically motivated distinction between the masculine and feminine based on natural gender (i.e., biological sex). Class 1 nouns may be either masculine or feminine, and the distinction between the two genders is preserved for all number categories (singular, dual, and plural). The subclasses of Class 1 differ from each other in their form of masculine plural marking: Class 1a uses -*irara*; Class 1b uses the pluralizer -*vure*, which is a free form and not a bound morpheme (see §5.2.2 for discussion); and Class 1c uses the pluralizer -*ra*. Class 2 nouns may also be either masculine or feminine in the singular and dual, but the distinction is neutralized for the plural—i.e., there is only one form, the pluralizer *kare*. Classes 3 through 5 have a fixed gender. They are formally distinguishable from Classes 1 and 2 on the basis of their form of plural marking, which is the suffix -*ara*.

The assignment of nouns to the various noun classes is largely predictable from semantics. The nouns in Class 1 are human; the nouns in Class 2 are (non-human) animates; and the nouns in Class 3, 4, and 5 are almost exclusively inanimate. The role of semantics in noun class assignment can be seen in the behavior of the noun stem *koi* ‘pig’. When it refers to living pigs, \(^1\)Firchow (1987:40–41) divides Rotokas noun roots into 5 classes; however, there are a number of gender/number-marking suffixes that he does not deal with—specifically, the animate (non-human) plural -*kare* and the irregular animate plural -*vure*.\]
it occurs in the plural with the pluralizer \textit{kare}, as illustrated in (25); however, when it refers to pork, it occurs with the plural suffix -\textit{ara}, as illustrated in (26).

(25) \textit{koie kare siku-pa-a-veira} \textit{rikui=ia}
\begin{align*}
\text{pig} & \quad \text{FP} \\
\text{wallow} & \quad \text{CONT-3PL}_\alpha-\text{HAB}
\end{align*}
\text{hole}=\text{LOC}

The pigs wallow in mudholes.

(26) \textit{uva evara} \quad \textit{ruttu oisioa} \quad \textit{siovara}=\textit{ia tou-pa-oro} \quad \textit{riro-vira}
\begin{align*}
\text{and} & \quad \text{DEM.MED.PL.N very} \\
\text{always} & \quad \text{on}=\text{LOC} \\
\text{be} & \quad \text{CONT-DEP.SIM big-ADV}
\end{align*}
\text{sipei-pa-pe} \quad \textit{koie-ara}
\begin{align*}
\text{sweet} & \quad \text{CONT-SUB pig-PL.N}
\end{align*}
Always being inside of them, the pig meat is very sweet. [Firchow (1974b:???)]

Nominal inflection for number/gender is optional in some circumstances. For example, consider the feminine noun \textit{aveke} ‘stone’. It occurs with the suffix -\textit{va} in (27) but occurs bare in (28).

(27) \textit{riako-va} \quad \textit{aveke-va} \quad \textit{peka-e-vo} \quad \textit{uva rakoru keke-e-vo} \quad \textit{uva}
\begin{align*}
\text{woman} & \quad \text{SG.F stone} \quad \text{turn} \quad \text{over-3SG.F}_\beta-\text{IP}_\beta \\
\text{and} & \quad \text{snake} \quad \text{look} \quad \text{at-3SG.F}_\beta-\text{IP}_\beta \\
\text{Kea-o-e} & \quad \text{oisio uo-va}
\end{align*}
\begin{align*}
\text{mistake} & \quad \text{for-3SG.F}_\alpha-\text{IP}_\alpha \\
\text{as} & \quad \text{eel} \quad \text{SG.F}
\end{align*}

The woman turned over the stone and saw a snake but mistook it for an eel.

(28) \textit{kaveakapie-vira} \quad \textit{aveke tovo-i-vo} \quad \textit{uva kove-o-e}
\begin{align*}
\text{insecure} & \quad \text{ADV stone place-3PL}_\beta-\text{IP}_\beta \\
\text{and} & \quad \text{fall-3SG.F}_\alpha-\text{IP}_\alpha
\end{align*}
They placed the stone insecurely and it fell down.

Zero marking is more common for some types of nouns (non-specific and/or inanimate) than others (human) and some grammatical roles (object) than others (subject). In the case of noun incorporation, zero marking is obligatory (see §10.2.2). In the following sections, each noun class is reviewed in greater detail.

\textbf{Class 1} The first class consists of nouns that refer to human beings, as can be seen from the partial list provided in Table 5.7. It includes various kinship terms, inherently human nouns, agentive nouns derived from other parts of speech (typically verbs), and various quasi-human nouns.\footnote{The nouns in this class would be labelled “rational” according to the terminology used for Dravidian languages, where a distinction is made between “rational” (humans, deities) and “irrational” (animals and everything else) nouns.}
### 5.2 An Inventory of Rotokas Word Classes

<table>
<thead>
<tr>
<th>Class</th>
<th>Noun</th>
<th>Gloss</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kinship Terms</td>
<td>aite</td>
<td>father</td>
<td></td>
</tr>
<tr>
<td></td>
<td>aako</td>
<td>mother</td>
<td></td>
</tr>
<tr>
<td>Human</td>
<td>avuka</td>
<td>old person</td>
<td></td>
</tr>
<tr>
<td></td>
<td>kakae</td>
<td>child</td>
<td>irregular plural: vure</td>
</tr>
<tr>
<td>Derived Agentive</td>
<td>ira-pa</td>
<td>leader</td>
<td></td>
</tr>
<tr>
<td></td>
<td>keri-pa</td>
<td>enemy</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>tugara</td>
<td>spirit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ova</td>
<td>mythical dwarf</td>
<td></td>
</tr>
</tbody>
</table>

**Table 5.3** Class 1 Nouns

Their pattern of inflection can be illustrated by the various forms of the noun stem *aite* ‘father’: singular in (29), dual in (30), and plural in (31).

(29) **kakae-to pikopiko-pie-re aite-to uvare**

child-SG.M whip.RDP-CAUS-3SG.M\_3 father-SG.M because

*kaureo-pa-ro-e*

disobedient-CONT-3SG.M\_1-IP\_1

Father is whipping the boy because he was disobedient.

(30) **aite-toarei rutu kopii-si-epa oira virakoi-pie-oro uva**

father-DL.M very die-3DL.M-RP\_1 PPRO.3.SG.F be.orphan-CAUS-DEP.SIM and

*oira vaisi-pa-i-veira oiso virakoi-i-va*

PPRO.3.SG.F call-CONT-3PL\_3-HAB COMP orphan-3PL\_3-RP\_3

Both parents died leaving her orphaned and they call her an orphan.

(31) **vovokio-pa-irara riro kaureo-irara aite-irara=re**

today-DERIV-HUM.PL big disobedient-HUM.PL father-HUM.PL=ALL

The people of today are disobedient to their parents.

There are two subclasses that display minor irregularities: Class 1b and Class 1c. Class 1b—which consists of a single member, the nominal stem *kakae* ‘child’—behaves like a noun from Class 1 except that its plural marker is an independent word, the free pluralizer *vure*, as exemplified in (32). When the modifier *riro* ‘many’ agrees with the noun *kakae vure* ‘children’ in (32), it takes the expected Class 1 plural suffix -*irara*. 

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5.2 An Inventory of Rotokas Word Classes

(32) Kura vaio  ora Raku katai-toarei-vi  raga viovoko-toarei  vo-urui-o=ia
Kura ANIM.DL and Raku one-DL.M-DIM only teenager-DL.M SPEC-village-???=LOC
ari riro-irara  rutu kakaevure  raga
but big-HUM.PL very child HUM.PL only
Kura and Raku are the only two teenage boys in this village because there are many children.

(33) oearo-vu  oisoa avui-pa-i-ve  voo-va  iruvao-ara kakaevure
PRO.3.PL.M-ALT always pierce.nose-CONT-3PL.β-SUB here=ABL nose-PL.N child
vure  ora kakaeriko
PL.M and child FP.F
Other people would always pierce the noses of the boys and girls.

Class 1c consists of only two members, the nouns oira ‘man’ and riko ‘woman’. Examples of the singular, dual, and plural form of riko ‘woman’ are provided in (34) through (36).

(34) riko-vao  kakae-to  roroopie-pa-e-vo
woman-SG.F child-SG.M nurse-CAUS-CONT-3SG.ß-IPß
The woman is nursing the child.

(35) riko-riri  airea  eisi=va  urio-ere-i-e  Kereaka
woman-DL.F PPRO.RES.3.DL.F LOC=ABL come-3DL.F-EPEN-IPß Kereaka
The two women came from Kereaka.

(36) riko-ra  ava-a-e  sioko  ou-sia  ori-sia
woman-PL.N go-3PL.α-IPß chayote get-DEP SEQ cook-DEP SEQ
The women went to get chayote in order to cook.

Class 2 The second class of nouns refer primarily to non-human animates (insects, birds, fish, mammals, etc.), as can be seen from the partial list of Class 2 nouns provided in Table 5.4.
Word Classes 5.2 An Inventory of Rotokas Word Classes

<table>
<thead>
<tr>
<th>Noun</th>
<th>Gloss</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>aatu</td>
<td>flying fox</td>
<td></td>
</tr>
<tr>
<td>asioko</td>
<td>cockroach</td>
<td></td>
</tr>
<tr>
<td>atari</td>
<td>fish</td>
<td></td>
</tr>
<tr>
<td>isike</td>
<td>rat</td>
<td></td>
</tr>
<tr>
<td>isio</td>
<td>spirit</td>
<td>believed to reside in the jungle</td>
</tr>
<tr>
<td>kaakau</td>
<td>dog</td>
<td></td>
</tr>
<tr>
<td>kavori</td>
<td>crayfish</td>
<td></td>
</tr>
<tr>
<td>koie</td>
<td>pig</td>
<td></td>
</tr>
<tr>
<td>kokio</td>
<td>bird</td>
<td></td>
</tr>
<tr>
<td>koora</td>
<td>possum</td>
<td></td>
</tr>
<tr>
<td>posiva</td>
<td>black ant</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.4 Class 2 Nouns

The noun koie 'pig' exemplifies this class of nouns, as can be seen from examples in (37) through (39), which illustrate its masculine singular, feminine singular, and plural forms.

(37) *ragai* rera-aro *koie-to* ritoko-pa-re-vora evoa

PPRO.1.SG PPRO.3.SG.M-POSS pig-SG.M defecate-CONT-3SG.M-\(\beta\)-DP\(\beta\) there
My (male) pig defecated over there.

(38) *Ririuto* ora-poisi-ro-e *koie-va* ora-upo-oro aruvea

Ririuto RR-brace-3SG.M\(\alpha\)-IP\(\alpha\) pig=SG.F RR-fight-DEP.SIM yesterday
Ririuto braced himself fighting the (female) pig yesterday.

(39) *koie* kare urui-a vuri keke-pie-i-vo va eri-oro ora

pig ANIM.PL village-SG.N bad look-CAUS-3PL-\(\beta\)-IP\(\beta\) PPRO.3.SG.N dig-DEP.SIM and
ritoko kou-oro voraro rutu
pig.shit leave-DEP.SIM everywhere very
The pigs made the village look bad, digging and shitting everywhere.

The form *ragui* is an archaic form of the *kare* which is still found in the speech of some older speakers. It use is illustrated below in (40).

(40) *paitu* rovu=ia oteote *ragui* keke-i-vorao kakae vure aruvea.

deep CL=LOC crocodile FFP look at-3PL-\(\beta\)-NP\(\beta\) child FFP yesterday
Yesterday the boys looked at crocodiles in the pool.
Some Class 2 nouns lack gender/number inflection in the singular for one gender, but not the other. This subclass of nouns consists largely (if not exclusively) of non-human animates—for example, the noun *rakoru* ‘snake’ has zero marking in the singular feminine, as in (41), but not in the singular masculine, as in (42). It otherwise behaves like a Class 2 noun, as can be seen from its plural form in (43).

(41) **rakoru** ora-pugo-o-i  uvare  oira  ragi-re-voi  Ruruviri  
    snake  RR-roll-3SG.Mα-PRESα  because  PRO.3.SG.F  beat-3SG.Mβ-PRESβ  Ruruviri  
    vurukoa=ia  
    stick-3G.N=LOC  
    The snake coiled up because Ruruviri beat her with a stick.

(42) **rakoru-to**  sirava-pa-ro-i  Tavi=re  
    snake-SG.M  hiss-CONT-3SG.Mα-PRESα  Tavi=ALL  
    The snake is hissing at Tavi.

(43) **vo-kaki**  ua  siovara=ia  **rakoru kare tou-pa-i-veira**  riro-pa  kare  
    SPEC-cave  CLASS  inside=LOC  snake  FPP  be-CONT-3PLβ-HAB  big-DERIV  FPP  
    Inside of the hole live many snakes.

**Class 3**  The third class of nouns refer almost exclusively to inanimate objects, as can be seen from the partial list of Class 3 nouns provided in Table 5.7. These nouns largely refer to things traditionally associated with male culture (e.g., hunting, warfare) and/or long, thin objects. Aikhenvald (2000:42) observes a similar pattern of classification for the Manambu (Ndu family), spoken in the East Sepik region of mainland Papua New Guinea, noting that “nouns which denote male humans and higher animates and long and thin objects are masculine, while those which denote female humans and high animates, and short and round objects, are feminine.”
5.2 An Inventory of Rotokas Word Classes

<table>
<thead>
<tr>
<th>Noun</th>
<th>Gloss</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>avuo</td>
<td>charm belt</td>
<td>believed to strengthen and protect children wearing it</td>
</tr>
<tr>
<td>govugovu</td>
<td>rainbow</td>
<td></td>
</tr>
<tr>
<td>kaku</td>
<td>fighting club</td>
<td>traditionally used in warfare</td>
</tr>
<tr>
<td>kato</td>
<td>rib</td>
<td></td>
</tr>
<tr>
<td>keari</td>
<td>long spear</td>
<td>traditionally used in hunting possum</td>
</tr>
<tr>
<td>kipe</td>
<td>scythe</td>
<td>used to cut wild grass</td>
</tr>
<tr>
<td>koki</td>
<td>ear</td>
<td></td>
</tr>
<tr>
<td>kupare</td>
<td>smoke</td>
<td></td>
</tr>
<tr>
<td>opita</td>
<td>coconut tree</td>
<td></td>
</tr>
<tr>
<td>pakou</td>
<td>fighting stick</td>
<td>traditionally used in warfare</td>
</tr>
<tr>
<td>sigo</td>
<td>bush knife</td>
<td></td>
</tr>
<tr>
<td>vopa</td>
<td>betel nut</td>
<td>traditionally used to make <em>pakou</em> ‘fighting stick’</td>
</tr>
</tbody>
</table>

Table 5.5 Class 3 Nouns

The noun *opita* ‘coconut’ is illustrated in its singular and plural form in (44) and (45). (No example of the dual could be found in the materials available to me.)

(44) kakae-vira tou-pa-ororo roo *opita-to pau-ri-va*

   little-ADV be-CONT-DEP.SIM DEM.PROX.SG.M coconut-SG.M plant-2SG β-RP β

When you were little, you planted this coconut tree.

(45) Kakarera=ia uva *opita-ara pau-re-va Raupeto*

   Kakarera=ABL and coconut-PL.N plant-3SG.M β-RP β Raupeto

   Raupeto planted coconut trees in Kakarera.

**Class 4** The fourth class of nouns refer almost exclusively to inanimate objects, as can be seen from the partial list of Class 4 nouns provided in Table 5.7. It is unclear what determines the assignment of inanimate nouns to this class. In general, however, these nouns tend to refer to tools (bow, axe), containers (basket, pot), and things relating to water (rain, dew, beach, canoe).
5.2 An Inventory of Rotokas Word Classes

<table>
<thead>
<tr>
<th>Noun</th>
<th>Gloss</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>aasi</td>
<td>betel nut</td>
<td></td>
</tr>
<tr>
<td>aveka</td>
<td>beach</td>
<td></td>
</tr>
<tr>
<td>aveke</td>
<td>stone</td>
<td></td>
</tr>
<tr>
<td>evao</td>
<td>tree</td>
<td></td>
</tr>
<tr>
<td>garoa</td>
<td>rattan, cane, vine (generic)</td>
<td></td>
</tr>
<tr>
<td>kareko</td>
<td>vine</td>
<td></td>
</tr>
<tr>
<td>koeta</td>
<td>bow</td>
<td></td>
</tr>
<tr>
<td>kogo</td>
<td>stone axe</td>
<td></td>
</tr>
<tr>
<td>opuru</td>
<td>canoe</td>
<td></td>
</tr>
<tr>
<td>pekuri</td>
<td>basket traditional woven variety</td>
<td></td>
</tr>
<tr>
<td>pirutu</td>
<td>flash flood</td>
<td></td>
</tr>
<tr>
<td>pitoka</td>
<td>pot traditional clay variety</td>
<td></td>
</tr>
<tr>
<td>taetuo</td>
<td>child’s bow</td>
<td>essentially a plaything</td>
</tr>
</tbody>
</table>

Table 5.6 Class 4 Nouns

The pattern of inflection for gender and number is illustrated by the stem *aveke* ‘stone’, which is illustrated in the singular (46), dual (47), and plural (48).

(46) *riako-va aveke-va peka-e-vo uva rakoru keke-e-vo uva*  
woman-SG.F stone-SG.F turn-over-3SG.Fβ-IPβ and snake  
see-3SG.Fβ-RPβ and  
*kea-o-e osia uo-va*  
confuse-3SG.Fα-IPα as  
eel-SG.F  
The woman turned over the stone and saw the snake and thought it was an eel.

(47) *uva Pauto tavi-ro-iva Moses airei-vu aire-pa-rirei aveke-rirei*  
and God  
tell-3SG.Mα-RPα Moses TWO-ALT new-DERIV-DL.N stone-DL.N  
pura-orö vairei=va  
Pautoa iare ipa-ro-epa  
pukui-a=ia  
make-DEP.SIM PRO.3.DL=COM God  
POST go_up-3SG.Mα-RPα mountain-SG.N=LOC  
And God told Moses to make two new stones and he went to God with them on the mountain. [Exodus 34:4]

(48) *Pio to ira aruo-va pura-pa-re-veira aveke-ara=ia*  
P.  
RPRO.3.SG.F mark-SG.F make-CONT-3SG.Mβ-HAB stone-PL.N=ABL  
Pio (a river) always makes a mark on the stones.

Class 5 The fifth class of nouns refer exclusively to inanimate objects, as can be seen from the partial list of Class 1 nouns provided in Table 5.7.
### Table 5.7 Class 5 Nouns

<table>
<thead>
<tr>
<th>Noun</th>
<th>Gloss</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>akoro</td>
<td>lime</td>
<td></td>
</tr>
<tr>
<td>apui</td>
<td>ditch</td>
<td></td>
</tr>
<tr>
<td>atoi</td>
<td>village</td>
<td></td>
</tr>
<tr>
<td>raiva</td>
<td>road</td>
<td></td>
</tr>
<tr>
<td>torara</td>
<td>axe</td>
<td>generic term (used primarily for gardening)</td>
</tr>
<tr>
<td>tetevu</td>
<td>sago</td>
<td></td>
</tr>
<tr>
<td>voki</td>
<td>day</td>
<td></td>
</tr>
<tr>
<td>vuku</td>
<td>book</td>
<td>borrowed from Tok Pisin</td>
</tr>
<tr>
<td>vuuta</td>
<td>time, space</td>
<td></td>
</tr>
</tbody>
</table>

The neuter inanimate nouns and their pattern of inflection is illustrated by the stem *urui* ‘village’, which is illustrated in the singular (49), dual (50), and plural (51).

(49) $\text{Aita}=\text{ia} \ tou-pa-i \ urui-a \ oa \ vaisi-pa-i \ Kuusi$

$\text{Aita}=\text{LOC} \ \text{be-CONT-3PL}_\beta \ \text{village-SG.N} \ \text{RPRO.3.SG.N} \ \text{call-CONT-3PL}_\beta \ \text{Kuusi}$

In Aita there’s a village that they call Kuusi.

(50) $\text{vo-urui-rei} \ \text{ora-toa-raga-pa-peira}$

$\text{SPEC-village-DL.N} \ \text{RR-face-just-CONT-HAB}$

The two villages face each other.

(51) $\text{reo-a} \ \text{paru-pie-ri} \ urui-ara \ rutu \ iare \ ra \ sikua=\text{ia} \ kovo-sia$

$\text{talk-SG.N} \ \text{move-CAUS-2SG}_\beta \ \text{village-PL.N} \ \text{very \ POST \ and \ school=LOC} \ \text{work-DEPSEQ}$

$\text{urio-a-ve}$

$\text{come-3PL}_\alpha-\text{SUB}$

Pass the word for everyone to come to work at the school.

Neuter nouns frequently appear without gender/number marking, particularly in the third person singular, as in (52) and (53).

(52) $\text{Teokon urui} \ \text{oa} \ tou-pa-i \ \text{Wakunai}=\text{ia} \ \text{ruvara=ia}$

$\text{Teokon \ village} \ \text{RPRO.3.SG.N} \ \text{be-CONT-3PL}_\beta \ \text{Wakunai}=\text{LOC} \ \text{near=LOC}$

Teokon village is close to Wakunai.

(53) $\text{Ruruvu urui} \ \text{arakasi-ei} \ \text{rutu \ viapau \ oira-ra-vai}$

$\text{Ruruvu \ village \ empty-PRES}_\alpha \ \text{very \ NEG} \ \text{man-PL.N-INDEF}$

Ruruvu village is truly empty, there are no people.
Some nouns take the suffix -arei (rather than -rei) to mark the neuter dual—e.g., vavae 'hand', as illustrated in (54).

(54) kakae-to vara-vira voka-pa-re aue=ia koko-toarei ora vavae-arei
child-SG.M low-ADV walk-CONT-3SG.Mβ CONN=LOC leg-DL.N and hand-DL.N
The little boy is walking low on his hands and legs.

5.2.2 Noun Classifiers

Nominal classification subsumes a number of distinct grammatical phenomena, including gender markers and noun classifiers (Grinevald, 2000; Aikhenvald, 2000). The gender system of Rotokas was already discussed in the previous section (§5.2.1.1). Here the system of noun classifiers in Rotokas will be described.

Grinevald (2000) distinguishes between four types of classifiers: numeral classifiers, noun classifiers, genitive classifiers, and verbal classifiers. Of these four types of classifiers, all but verbal classifiers are found in the East Papuan languages (Terrill, 2002). However, in Rotokas, only noun classifiers are found, and these consist of two different systems. One system consists of configurational classifiers—that is, classifiers that make reference to the shape of the nouns they classify—while the other consists of taxonomic classifiers—that is, classifiers that make reference to the kind of nouns they classify (?)

This shape-based classifier system has few members and appears to be a closed class. The items belonging to this system are provided in Table 5.8.

<table>
<thead>
<tr>
<th>Classifier</th>
<th>Semantic Domain</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>isi</td>
<td>round object</td>
<td>takura isi 'egg CLASS'</td>
</tr>
<tr>
<td>kuio</td>
<td>round object (edible)</td>
<td>opo kuio 'taro CLASS'</td>
</tr>
<tr>
<td>ua</td>
<td>narrow object</td>
<td>rogara ua 'sand CLASS'</td>
</tr>
<tr>
<td>kae</td>
<td>long object</td>
<td>evao kae 'tree CLASS'</td>
</tr>
</tbody>
</table>

Table 5.8 Shaped-Based Noun Classifiers (Firchow, 1987:36)

The classifiers in Table 5.8 resembles a gender system, to the extent that the classifiers also occur on modifiers of the classified noun, regardless of whether the modifier is attributive, as in (55) and (56), or predicative, as in (57) and (58).

(55) gorupasi isi rutu karuvera isi aio-a-voi
strong  CL very Singapore CL eat-1SG.β-PRES.β
I ate a really strong Singapore fruit.
I saw the pretty face of the woman and that’s why I desired her.

This taro is a really big taro.

The coconut is unripe.

In addition, anaphoric reference to a noun classified by one of these classifiers takes the form of a pronoun co-occurring with the classifier, as illustrated in (59) and (60).

Mother scraped taro for Rite and he will carry it to school.

Mark turned the ball by kicking it.

There is a second classifier system which differs from the previous classifiers in various respects. This classifier system is not shape-based. Instead, these classifiers have a collective meaning for fairly specific semantic classes—for example, the classifier *tai* refers to a collection of edible vegetables, such as *arua* ‘vegetables’, *ruve* ‘aibika’, or *rereveo* ‘wild sugarcane’. A number of these forms are listed below in Table 5.9. It is less clear that these classifiers constitute a closed class; although they are more numerous than the shape-based classifiers, no borrowed forms have been identified to date.
5.2 An Inventory of Rotokas Word Classes

<table>
<thead>
<tr>
<th>Classifier</th>
<th>Semantic Domain</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>kokoo</td>
<td>plateful</td>
<td></td>
</tr>
<tr>
<td>koota</td>
<td>group of rope-like objects</td>
<td></td>
</tr>
<tr>
<td>kou</td>
<td>heap</td>
<td></td>
</tr>
<tr>
<td>kovo</td>
<td>garden</td>
<td></td>
</tr>
<tr>
<td>ovi</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>pitu</td>
<td>swarm</td>
<td></td>
</tr>
<tr>
<td>pota</td>
<td>group of flat layered objects</td>
<td></td>
</tr>
<tr>
<td>rovu</td>
<td>body of liquid</td>
<td></td>
</tr>
<tr>
<td>tai</td>
<td>edible vegetables</td>
<td></td>
</tr>
<tr>
<td>tesi</td>
<td>group of bamboo tubes</td>
<td></td>
</tr>
<tr>
<td>tou</td>
<td>container</td>
<td></td>
</tr>
<tr>
<td>vasie</td>
<td>group of people</td>
<td></td>
</tr>
<tr>
<td>viku</td>
<td>group of people</td>
<td></td>
</tr>
<tr>
<td>vou</td>
<td>stranger</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.9 Noun Classifiers

Firchow (1987:35-36) describes these classifiers under the category of “nominal suffixes”; however, this characterization is inaccurate since classifiers are not bound to the nouns with which they co-occur—i.e., they can function as the head of a noun phrase, as in (61) and (62).

(61) ruve tai ori-e-voi uva riro-vira ruve-vira irao uvare riro-vira
    aibika CLASS cook-3SG.F_β-PRES_β and big-ADV greasy-ADV INTENS because big-ADV
    opita kuri-o-i vo-tai=re
    coconut scrape-3SG.F_α-PRES_α SPEC-CL=ALL
    She is cooking aibika and it is very greasy because he is scraping a lot of coconut on it.

(62) tatai-va ruveta tai=va kare-o-i vo=va kovo-a vo-tai
    aunt-SG.F aibika CL=COM return-3SG.F_α-PRES_α SPEC=ABL work-SG.N SPEC-CL
    ori-sia ra va aio-e-ve
    cook-DEP.SEQ and PPRO.3.SG.N eat-3SG.F_β-SUB
    Auntie is coming with the aibika in order to cook it and eat it.

On the basis of Firchow’s description, Terrill (2002:73) characterizes these forms as “special pluralizers for different types of objects”. These classifiers do resemble free (i.e., unbound) pluralizers (such as riako or vure) in some respects but this characterization is incomplete. For example, both classifiers and free-form pluralizers can function as the head of a noun phrase. This was already illustrated for the noun classifiers in (61) and (62) and is illustrated for the free pluralizers riako in (63) and kare in (64).
5.2 An Inventory of Rotokas Word Classes

From kapok cotton the women make pillows.

We will get the green frogs and then we will eat them.

Despite their similarities, noun classifiers can be distinguished from free-form pluralizers on the basis of their ability to take number marking. The singular lacks overt number marking, whereas the dual is marked by -rei and the plural by -ro. For example, the classifier kuio occurs with dual marking in (65) and the classifier kou occurs with plural marking in (66).

Those were the two (taro) that he had planted. [Caleb, “Matevu”]

Kavi is gathering all of the grass in order to burn it.

The chief punished Raku because he ran away from work.

Men make cocoa gardens in order to get money.

Firchow (1987:47–48) treats classifiers and free pluralizers as a single class, but given that they behave differently with respect to number marking, they must be distinguished. It is likely, however, that classifiers are the diachronic source of the pluralizers, according to a scenario where number marking on commonly occurring classifiers is lost and the classifier comes to have inherent plural semantics.
5.2 An Inventory of Rotokas Word Classes

Classified nouns behave like neuter nouns with respect to subject agreement, as can be seen from (69) and (70), where classified nouns play the role of subject and show zero agreement on the verb. In addition, classifier nouns co-occur with the form of the subjunctive mood normally found with neuter subjects (-pe), as in (69) (see §6.2.2.7).

(69) kokovara isi opita isi viapau erako-pa-∅-pe
unripe CLASS coconut CLASS NEG dry-CONT-3SG.N-SUB
The unripe coconut isn’t dry.

(70) gaegaere-vira roko-∅-voi opita isi uuko-va=ia
drift-ADV go_down-3PL.N-PRESβ coconut CLASS water-SG.F=LOC
The coconuts are going drifting down the water.

5.2.3 Pronouns

In Rotokas, there are four different pronominal paradigms: personal pronouns (§5.2.3.1), resumptive pronouns (§5.2.3.2), possessive pronouns (§5.2.3.3), and demonstrative pronouns (§5.2.3.4). Each will be described in turn.

5.2.3.1 Personal Pronouns

The most basic and commonly occurring pronouns are the personal pronouns. The personal pronouns are sensitive to person (first, second, third), number (singular, dual, plural), and gender (masculine, feminine, and neuter), as well as clusivity (inclusive vs. exclusive). The full paradigm is provided in Table 5.10.

<table>
<thead>
<tr>
<th>Person</th>
<th>Number</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Incl.</td>
<td>ragai</td>
<td>vegei</td>
<td>vigei</td>
</tr>
<tr>
<td></td>
<td>Excl.</td>
<td></td>
<td></td>
<td>igei</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>vii</td>
<td>vei</td>
<td>visii</td>
</tr>
<tr>
<td>3</td>
<td>M</td>
<td>rera</td>
<td>vaiterei</td>
<td>voea</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>oira</td>
<td>vairei</td>
<td>vairo</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>va</td>
<td>varei</td>
<td>vara</td>
</tr>
</tbody>
</table>

Table 5.10 Personal Pronoun Paradigm

Table 5.10 provides no segmentation of the personal pronouns since no productive segmentation appears to be possible. For example, the first personal plural inclusive might be analyzed
as the second person singular plus the first personal plural exclusive. However, if this were an instance of productive concatenation of morphemes, the vowel of the first syllable (vi) should be long (cf. §6.3.1. It is therefore more likely that historically the first person singular plural exclusive arose from the fusion of the second person singular and the first person plural exclusive. Comparative data from the other languages in the Rotokas family may shed some light on the diachronic origins of the paradigm. In Konua, for example, the first person plural inclusive personal pronoun biogā cannot simply be analyzed as the concatenation of the second person singular and the first person plural exclusive since the second person singular is biro or bira and the first person plural exclusive is ioka (Müller, 1954; Ross, 2001).

The paradigmatic structure for person marking in the pronoun paradigms is somewhat interesting from a typological perspective. Although a clusivity distinction is found in the first personal plural, it is neutralized in the first person dual, as illustrated by (71) and (72). As the Tok Pisin translations provided by consultants underscore, the addressee is included in (71) but excluded in (72), yet the same pronoun, vegei, is used in both cases.

(71) \( \text{ragai}=\text{pa} \quad \text{viru} \quad \text{ra} \quad \text{vegei} \quad \text{rutu} \quad \text{pau-ve} \)
    \[ \text{PRO.1.SG}=\text{BEN} \text{ move and PRO.1.DL} \text{ very sit-1DL} \]
    Move for me and we’ll sit down./You surik bai yumi tupela wantaim sindaun.

(72) \( \text{vei} \quad \text{rogo} \quad \text{rovo-pa-si-ei} \quad \text{tkau-oro} \quad \text{ra} \quad \text{vegei} \quad \text{utu-pa-vira} \)
    \[ \text{PRO.2.PL} \text{ begin start-CONT-2DL-PRES}_\alpha \text{ run-DEP.SIM and PRO.1.DL} \text{ follow-DERIV-ADV} \]
    \[ \text{ikau-veare} \quad \text{run-1DL+NF} \]
    You two start first and the two of us will follow running./Yutupela bai stat ron pastaim na bihain bai mitupela i ron.

Table 5.2 uses the analytical scheme employed in Cysouw (2003)’s cross-linguistic survey of paradigmatic structure to represent the Rotokas pronominal system.

<table>
<thead>
<tr>
<th>Group</th>
<th>Restricted Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>\text{vigei}</td>
</tr>
<tr>
<td>1+2+3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>\text{igei}</td>
</tr>
<tr>
<td>1+3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>\text{vaiwarei}</td>
</tr>
<tr>
<td>2+3</td>
<td></td>
</tr>
<tr>
<td>3+3</td>
<td></td>
</tr>
</tbody>
</table>

\[ \text{Figure 5.2 Paradigmatic Structure of Personal Pronouns} \]

According to Cysouw (2003), this type of configuration—where there is “hymophony” (i.e., a neutralization across cells) along the vertical dimension—is fairly uncommon cross-
5.2 An Inventory of Rotokas Word Classes


Pronouns are invariant in form across grammatical roles (unlike, for example, English pronouns—I vs. me). This holds true for all of the pronominal paradigms, but can be most easily illustrated with personal pronouns (due to their high frequency of occurrence). Therefore, in examples (73) through (80), the pronoun *ragai* ‘I, me’ remains invariant in form despite the fact that it plays a different grammatical role in sentences (73) through (80).

S

(73) *ragai* katokato-to 
PPRO.1.SG black-SG.M
I’m a black man.

(74) *ragai* kasipu-ra-i 
PPRO.1.SG angry-1SG$_{\alpha}$-PRES$_{\alpha}$
I’m angry.

A

(75) *ragai* vii ita ou-a-voi 
PPRO.1.SG PPRO.2.SG again get-1SG$_{\beta}$-PRES$_{\beta}$
Now I’m marrying you. [Firchow and Akoitai (1974:3,7:45b)]

(76) *ragai* vo-siposipo pura-a-voi Tarui 
PPRO.1.SG SPEC-story make-1SG$_{\beta}$-PRES$_{\beta}$ name
I, Tarui, am telling this story. [Firchow and Akoitai (1974:Sect1,Text10:28)]

O

(77) *ari* eera *raga* *ragai* tauva-re-vo 
but DEM.PROX.3.SG.M only PPRO.1.SG help-3SG.M$_{\beta}$-IP$_{\beta}$
But only this one helped me. [Firchow and Akoitai (1974:3,2:48)]

(78) *uvare* *ragai* tavi-rao-re-va 
because PPRO.1.SG tell-INTEN-3SG.M$_{\beta}$-RP$_{\beta}$
Because he really talked to me. [Firchow and Akoitai (1974:1,3:29)]
5.2 An Inventory of Rotokas Word Classes

Oblique

(79) ava-u **ragai=pa** uuko-a-vai ou-sia
   go-2SG, PPRO.1.SG=BEN water-INDEF get-DEP.SEQ
   You go get water for me. [Firchow and Akoitai (1974:3,5:6)]

(80) **ragai=re** keera-ro-epa oisio uro-u-vere
   PPRO.1.SG=ALL beckon-3SG.M-REP COMP come-2SG,NF
   He beckoned to me, “Come here”.

5.2.3.2 Resumptive Pronouns

Firchow (1987) recognizes a second pronominal paradigm, whose members he labels “relative pronouns”. The full paradigm is provided below in Table 5.11.

<table>
<thead>
<tr>
<th>Number</th>
<th>Person</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Incl.</td>
<td>M</td>
<td>ira</td>
<td>aiterea</td>
<td>oea</td>
</tr>
<tr>
<td>1 Excl.</td>
<td>F</td>
<td>iria</td>
<td>airea</td>
<td>airoa</td>
</tr>
<tr>
<td>1</td>
<td>N</td>
<td>oa</td>
<td>oarea</td>
<td>oara</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>vigoa</td>
<td>veigoa</td>
<td>visiigoa</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>vigoa</td>
<td>veigoa</td>
<td>visiigoa</td>
</tr>
</tbody>
</table>

Table 5.11 Resumptive Pronouns

Firchow (1987)’s characterization of these pronouns as “relative” is based on the fact that they are used to form relative clauses, as illustrated in (81) and (82).

(81) Aita=ia tou-pa-i urui-a oa vaisi-pa-i Kuusi
   Aita=ABL be-CONT-PRES,N village-SG.N RPRO.3.SG.N call-CONT-PRES,N Kuusi
   In Aita there’s a village that they call Kuusi.

(82) Gara uuko-va vaisi-aro iria tou-pa-i-veira eisi Sisisivi=ia
   Gara river-SG.F name-POSS PPRO.3.SG.F be-CONT-3PL,HAB LOC Sisisivi=ABL
   near=ABL
   Gara is the name of the river that is close to Sisivi.
These pronouns agree in person, number, and gender with the head noun: *oa* agrees with the third person singular neuter noun *uruia* ‘village’ in (81) and *iria* agrees with the third person singular feminine noun *uukova* ‘river’ in (82).

Given that this pronominal paradigm includes “local” persons (i.e., first and second person), their characterization as “relative pronouns” is questionable, and the term “resumptive pronoun” will be used instead. The resumptive function of these pronouns is illustrated in (83) and (84). In these examples, a topic is first established and subsequent references to it are then made using a resumptive pronoun.

(83) *kapokarito* ira epao vavo *Rarova* ira iava vavurupa-ara
    tree RPRO.3.SG.M exist there *Rarova* RPRO.3.SG.M POST root-PL.N
ou-a-vorao
get-1SGβ-NPβ

The tree that is in Rarova, I got roots from it.

(84) *utave-va* Kiki oira-aro iria kavu-re-va eisi
    shell-SG.F Kiki RPRO.3.SG.F-POSS RPRO.3.SG.F leave_behind-3SG.Mβ-RPβ LOC

  Ruruvu=ia iria oisioa vuvure-pa-re-ve
  Ruruvu=ABL RPRO.3.SG.F always blow-CONT-3SG.Mβ-SUB

  Kiki’s shell, the one he would always blow, he left it in Ruruvu.

Local person (i.e., first and second person) resumptive pronouns are fairly rare. They are illustrated in (85) and (86).

(85) *viovoko* riro vatasioko-to vii *vigoa* viapau oisio katai
    teenager big vagabond-SG.M PPRO.2.SG RPRO.2.SG NEG COMP one
urui-va=ia ora-tou-pie-pa-u-veira
    village-SG.F=LOC RR-be-CAUS-CONT-2SGα-HAB

    Boy, you’re a vagabond, you don’t stay put in one village.

(86) *riro* kavikaviru-irara visi *visiga* atari kare kaviru-ta-vora
    big steal.RDP-HUM.PL PPRO.2.PL RPRO.2.PL fish FP steal-2PL-DPβ

    You’re big thieves, you stole the fish.

Topicalized nouns occur at the left-most boundary of the sentence and subsequent reference to them takes the form of resumptive pronouns that agree with them in person, number, and gender. These resumptive pronouns occur in situ, as illustrated in (87) through (90), which illustrate topicalized nouns serving a variety of grammatical roles.
5.2 An Inventory of Rotokas Word Classes

S

(87) *sigo-a vii va-aro oa asikauru-era*

knife-SG.N PRO.2.SG PRO.3.SG.N-POSS RPRO.3.SG.N rust-DP$_{o}$

Your knife, it rusted.

A

(88) *kauo-va *ria* upiriko kovo aruo-pa-e-voi*

aunt-SG.F PRO.3.SG.F sweet-potato garden weed-DU-CONT-3SG.F$_{β}$-PRES$_{β}$

Your auntie, she is weeding the sweet potato garden.

O

(89) *Resi *ria* agoagoto-raga-pa-re-vo*  Voipiri

Resi RPRO.3.SG.F flatter.RDP-ONLY-CONT-3SG.M$_{β}$-IP$_{β}$  Voipiri

As for Resi, Voipiri is flattering him.

Oblique

(90) *koeta *ria=ia koora ritaa-pa-a-veira ora aue tapo kokio*

bow  RPRO.3.SG.F=LOC possum shot-DU-CONT-3PL$_{α}$-HAB and  CONN also bird

With a bow they shoot possums and birds.

5.2.3.3 Possessive Pronouns

Possessive pronouns are those that substitute for possessors. The full paradigm for the possessive pronouns is provided in Table 5.12.$^{4}$

<table>
<thead>
<tr>
<th>Person</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Incl. Excl.</td>
<td>oaa</td>
<td>oave</td>
<td>oavi oave</td>
</tr>
<tr>
<td>2</td>
<td>oara</td>
<td>oaesi</td>
<td>oavisi</td>
</tr>
<tr>
<td>3 M F</td>
<td>oaro oo</td>
<td>oaesio aere</td>
<td>oaviso oavise</td>
</tr>
</tbody>
</table>

*Table 5.12 Possessive Pronouns*

---

$^{4}$Firchow (1987) provides the form *oae* for the third person plural.
Unlike other pronominal paradigms, the possessive pronouns lack a category for the third person neuter.\(^5\) When the possessor of a noun is neuter, the only option for marking possession is the possessive suffix \(-aro\), which occurs on the possessed noun (see §6.1.2.3), as illustrated in (91) and (92).

(91) \textit{rasi-a vaisi-aro oa vaisi-pa-i oisio Aperaipa}  
\hspace{1cm} ground-SG.N name-POSS RPRO.3.SG.N call-CONT-3PL\(\_\beta\) COMP Aperaipa  
\hspace{1cm} The name of the place, they call it Aperaipa.

(92) \textit{kakau-ara vavata-aro ate-pa-i-vo oiso ra vara=IA vori}  
\hspace{1cm} cocoa-PL.N weight-POSS weigh-CONT-3PL\(\_\beta\)-IP\(\_\beta\) COMP and PRO.3.PL.N-ABL money \hspace{1cm} ou-a-ve  
\hspace{1cm} get-3PL\(\_\alpha\)-SUB  
\hspace{1cm} The weighed the cocoa so that they could get money from them.

Possessive pronouns agree in person, number, and gender with their possessors, and follow them, as illustrated in (93) through (95).

(93) \textit{kepa oaive eva oa vura-pa-ri}  
\hspace{1cm} house PPRO.3.PL DEM.3.SG.N RPRO.3.SG.N look-_at-CONT-2SG\(\_\beta\)  
\hspace{1cm} That’s their house that you’re looking at.

(94) \textit{Joseph ira kovo-pa-ara oaro guru-re-voi}  
\hspace{1cm} Joseph RPRO.3.SG.M work-DERIV-PL.N PPRO.3.SG.M gather-_3SG.M\(\_\beta\)-PRES\(\_\beta\)  
\hspace{1cm} Joseph is gathering all of his tools.

(95) \textit{kepa oaio eva oa iare ava-pa-vi-ei}  
\hspace{1cm} house PPRO.1.PL.EXCL DEM.3.SG.N RPRO.3.SG.N POST go-CONT-1DL-PRES\(\_\alpha\)  
\hspace{1cm} That’s our house which we’re going into.

### 5.2.3.4 Demonstratives

Demonstrative pronouns are deictic words that indicate which entities a speaker refers to, and distinguishes these entities from others (Anderson and Keenan, 1985). The demonstrative pronouns in Rotokas encode three levels of distance: proximal, medial, and distal. The range of spatial deixis associated with these three categories is characterized in Firchow (1987:43) as follows: “demonstrative pronouns are sub-classified according to the ‘position’ of the referent

\(^5\)The possessive pronoun paradigm provided in Firchow (1987) also lacks entries for the third person neuter.
in relation to the speaker, i.e., referent near at hand, referent at a distance, and referent removed or out of sight". The full paradigm is given in Table 5.13.

<table>
<thead>
<tr>
<th>Number</th>
<th>Distance</th>
<th>Gender</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Proximal</td>
<td>M</td>
<td>roo</td>
<td>vaitere</td>
<td>voeao</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>oo</td>
<td>vaire</td>
<td>vairoo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>vao</td>
<td>vareo</td>
<td>varaao</td>
</tr>
<tr>
<td></td>
<td>Medial</td>
<td>M</td>
<td>eera</td>
<td>vaiterei</td>
<td>evoeao</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>eira</td>
<td>evairei</td>
<td>evairo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>eva/evo</td>
<td>evarei</td>
<td>evara</td>
</tr>
<tr>
<td></td>
<td>Distal</td>
<td>M</td>
<td>roari</td>
<td>vaiterei</td>
<td>voeari</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>oari</td>
<td>vairei</td>
<td>vairori</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>vari</td>
<td>vareiri</td>
<td>varari</td>
</tr>
</tbody>
</table>

Table 5.13 Demonstrative Pronoun Paradigm

These forms may appear to be amenable to further segmentation, along the lines shown in Table 5.14, since the proximal forms consistently end with o, the medial forms consistently begin with e, and the distal forms consistently end with ri.

<table>
<thead>
<tr>
<th>Number</th>
<th>Distance</th>
<th>Gender</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Proximal</td>
<td>M</td>
<td>ro</td>
<td>vaitere</td>
<td>voeao</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>o</td>
<td>vaire</td>
<td>vairo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>va</td>
<td>varei</td>
<td>vara</td>
</tr>
<tr>
<td></td>
<td>Medial</td>
<td>M</td>
<td>era</td>
<td>vaiterei</td>
<td>evoeao</td>
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<tr>
<td></td>
<td></td>
<td>F</td>
<td>e-ira</td>
<td>vairei</td>
<td>vairo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>va</td>
<td>varei</td>
<td>vara</td>
</tr>
<tr>
<td></td>
<td>Distal</td>
<td>M</td>
<td>roa</td>
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<td>voeao</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>oa</td>
<td>vairei</td>
<td>vairo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>va</td>
<td>varei</td>
<td>vara</td>
</tr>
</tbody>
</table>

Table 5.14 Hypothetical Segmentation of Demonstrative Pronoun Paradigm

If the common elements for each level of distance are treated as affixes (proximal, -o; medial, e-; distal, -ri), we would expect their hosts to be consistent in form across the levels of distance. However, the base forms obtained by segmenting out the hypothetical affixes are not internally consistent. The third person singular masculine and feminine are irregular for all
levels of distance. There is also some irregularity in the masculine and feminine dual proximal as well as the medial third person plural. There is also no consistent correspondence between the base forms and any other pronominal paradigm. For example, the third person singular neuter has a consistent base form across the three levels of distance (va), which corresponds to the third person singular of the personal pronoun paradigm. But the same cannot be said for the third person singular masculine or feminine. The third person singular feminine distal appears to be based on the third person singular neuter resumptive pronoun while none of the third person masculine singular base forms correspond to any other pronominal paradigm. The demonstratives will therefore be treated as unanalyzed forms in all interlinear glossing.

Demonstratives can occur in isolation as pro-forms, as illustrated for the medial third person masculine in (96) and the medial third person feminine in (97).

(96) *aure ari eera ava-ro-e vokipaua rutu*

  yes but DEM.MED.3.SG.M go-3SG.M₁-₁IP₀ morning very
  Yes, but that one went in the early morning.

(97) *eira veu-pa-o-i uvare oira=re*

  DEM.MED.3.SG.F be.angry-CONT-3SG.F₁-₁PRES₀ because PPRO.3.SG.F=ALL
  reo-a-e
  speak-3PL₁-₁IP₀
  She is angry because they talked to her.

Demonstratives also co-occur with nouns, serving as modifiers, as in (98), where the medial third person masculine demonstrative *eera* occurs with the masculine noun *oirato* ‘man’, or (99), where the medial third person feminine demonstrative *eira* occurs with the feminine noun *aiopava* ‘flashlight’.

(98) *eera oira-to riro kaviru-to*

  DEM.MED.3.SG.M man-SG.M big steal-SG.M
  This man is a big thief.

(99) *Savuko oira-aro eira aopa-va*

  Savuko PPRO.3.SG.F-POSS DEM.MED.3.SG.F flashlight-SG.F
  That flashlight is Savuko’s.
5.2.4 Verbs

The defining feature of verbs is their ability to inflect for person and tense/aspect/mood. For example, the verb *vurivuri* ‘move back and forth’ in (100) shows third person subject agreement (-ro) and is marked for the remote past (-epa).⁶

(100) *uva ora-viruviru-raga-pa-ro-epa*                      *ragai*       *uriri-pa-ororo*

and RR-move.RDP-ONLY-CONT-3SG.Mₐ,RP₂ₐ PPROM.1.SG frighten-CONT-DEP.SIM

He just moved himself back and forth frightening me.

Verbs are an open category in Rotokas, judging from the increasing amount of borrowing from Tok Pisin that occurs in the language. It seems, however, that the rate of verb borrowing in Rotokas lags behind that of noun borrowing. Table 5.15 lists a few of the more commonly heard Rotokas verbs that have been borrowed into Rotokas from Tok Pisin.

<table>
<thead>
<tr>
<th>Rotokas Verb</th>
<th>Tok Pisin Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>iusi</em> ‘use’</td>
<td><em>yusim</em></td>
</tr>
<tr>
<td><em>kiria</em> ‘clarify’</td>
<td><em>kiliaim</em></td>
</tr>
<tr>
<td><em>pereri</em> ‘befriend’</td>
<td><em>peren</em></td>
</tr>
<tr>
<td><em>rootu</em> ‘worship’</td>
<td><em>lotu</em></td>
</tr>
<tr>
<td><em>sekari</em> ‘shake hands’</td>
<td><em>sekhan</em></td>
</tr>
<tr>
<td><em>siku</em> ‘attend school’</td>
<td><em>skul</em></td>
</tr>
</tbody>
</table>

**Table 5.15 Rotokas Verbs Borrowed from Tok Pisin**

The use of borrowed verbs is illustrated in (101) and (102).

(101) *viapau ragai*                      *rootu-pa-ra-era*

NEG PPROM.1.SG attend.church-CONT-1SGₐ-DP₂ₐ

I wasn’t going to church in the past.

(102) *oire ora-agesi-pie-a-i*                      *voa=va*       *sikeari-a-epa*

okay RR-smile-CAUS-3PLₐ,PRES₂ₐ here=ABL shake.hands-3PL₂ₐ,RP₂ₐ

Okay, they’re smiling at each other and shook hands. [RR-Ata:49]

Verbal subject agreement and tense-marking in Rotokas can be divided into two formally distinct classes, which will simply be labelled $\alpha$ and $\beta$ in order to avoid prejudging the question

⁶Although both independent and dependent verbs can occur with the continuous suffix -pa, it cannot be used as a diagnostic for verbhood, since a homophonous suffix occurs on a number of other parts of speech (e.g., derived nouns and adverbs).
of what motivates the distinction, and verbs can be classified according to which form of person agreement they take. For example, the verb *uusi* ‘sleep’ is $\alpha$ whereas the verb *upo* ‘hit’ is $\beta$. The contrast is illustrated in (103) and (104), where the two verbs show distinct patterns of verbal inflections despite the fact that they both have third person plural subjects and occur in the present tense indicative.

(103) *kakae vure uusi-pa-i koke-va rero-aro*

child FP sleep-CONT-3PL$\alpha$-PRES$\alpha$ rain-SG.F underneath

The children were sleeping under the rain.

(104) *uva vii upo-pa-i-voi oira=pa eira riako-va*

and PPRO.2.SG hit-CONT-3PL$\beta$-PRES$\beta$ PPRO.3.SG.F DEM.MED.SG.F woman-SG.F

They are hitting you because of the woman.

Although some verbs are labile (see §10.1.1), most verbs belong uniquely to one of the two classes, and can therefore be described as $\alpha$ or $\beta$. This assignment is systematically affected by valency-changing derivations (see Chapter 10). Since this topic is the chief concern of this thesis and is described in considerable detail in the second part of the thesis, it will not be discussed in detail here. For a description of verbal morphology, and an inventory of forms, see §6.2.

### 5.2.5 Adjectives

There has been a great deal of typological interest in the universality of adjectives (Dixon, 1982, 2004). In typological treatments of adjectives, a distinction is usually drawn between two functions of adjectives: attributive and predicative (Stassen, 1997). Attributive adjectives serve to modify the heads of noun phrases whereas predicative adjectives serve as the predicates of clauses (>). For example, in Rotokas, the stem *riro* ‘big’ can function either attributively, as in (105), where it modifies the noun *aveke* ‘stone’, or predicatively, as in (106), where it is the main predicate and occurs with person/number/gender and tense/aspect/mood marking.

(105) *aite-to riro-va aveke kae-pie-re-vo aruvea*

father-SG.M big-SG.F stone lift-CAUS-3SG.M$\beta$-1P$\beta$ yesterday

Dad lifted a large stone yesterday.

(106) *oira-ra gorupasi-vira riro-pa-a-i vovokio=ia*

man-HUM.PL strong-ADV big-CONT-3PL$\alpha$-PRES$\alpha$ today=ABL

People grow up strong today.
Sentences such as (105) and (106) provide no good evidence of a distinct grammatical category of adjectives, since *riroto* ‘big’ and *riroparoi* ‘be big’ can simply be analyzed as noun and verb, respectively. Such an analysis would be more parsimonious, since it does not require the postulation of any new word classes, and places the burden of explanation on a mapping between root and/or stem classes on the one hand and word classes on the other. This is already an issue for Rotokas due to the existence stems such as *atari* ‘fish’, which indifferently function as noun or verb (i.e., without recourse to explicit derivational morphology).

### 5.2.5.1 Predication

Stassen (1997:???) observes that there are four classes of predication, listed in (107), which languages carve up differently.

(107)   a. **Event Predicate** Joanna rides.
       b. **Property or quality predicate** Joanna is strong.
       c. **Class predicate** Joanna is a fine horse-woman.
       d. **Locational predicate** Joanna is in the stable.

In Rotokas, event, property or quality, and locational predicates take the form of verbs, as illustrated in (108) through (110).

#### Event Predicate

(108) *ragai* *roru-pa-oro* *kauo-pa-ra-i*

\[
\text{PPRO.1.SG be.happy-CONT-DEP.SIM jump-CONT-1SG_{\alpha}-PRES_{\alpha}}
\]

I am jumping with joy.

#### Property or Quality Predicate

(109) ???

#### Locational Predicate

(110) *oovato* *ira* *voo tou-pa-re-veira* *Tutupaio kaki-a* *siovara=ia*

\[
\text{red_earth RPRO.3.SG.M here be-CONT-3SG.M_{\beta}-HAB Tutupaio cave-SG.N inside=ABL}
\]

Red earth is found inside a cave in Tutupaio.

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5.2 An Inventory of Rotokas Word Classes

Class predicates, on the other hand, take the form of nouns, as in (111), where the subject occurs in its usual position, or (112), where the subject is right-dislocated (see §??). In both cases, the class predicate is a noun and the subject and predicate are simply juxtaposed—i.e., there is no copula.

(111) *Raviata vearo-pie koie ragui-ro toki-pa-to*
    Raviata good-CAUS pig  CL-PL.N care_for-DERIV-SG.M
    Raviata is a good animal caretaker.

(112) *gavaure-a vao voki-a*
    nice-SG.N DEM.PROX.SG.N day-SG.N
    Today is a nice day.

5.2.5.2 Attribution

The situation is less straightforward where attribution is concerned. There is a formal distinction between two classes of stems in the case of attribution: those that can directly function attributively and those that require the suffix -pa to do so. Bivalent verbs (see Chapter 9) systematically take the suffix -pa when they modify nouns, as illustrated in (113) and (114).

(113) *kokotu takura-aro sipo-sia ava-ro-e Wesli eisi uu-pa tapi*
    chicken egg-POSS send-DEP.SEQ go-3SG.M,-IP α Wesley LOC meet-DERIV place
    Wesli went to sell chicken eggs at market.

(114) *Rari kotokoto ou-sia ava-ro-e eisi Buka aio kitu-pa kepa iare*
    Rari cargo  get-DEP.SEQ go-3SG.M,-IP α LOC Buka food store-DERIV house POST
    Rari went to the store (lit., food-storing house) in Buka.

Monovalent verbs are split in this respect. For example, the stem uteo ‘cold’ directly modifies the noun tapi ‘place’ in (115) and vuuta ‘time, space’ in (116).

(115) *Sisivi-a riro uteo tapi rutu*
    Sisivia big cold place very
    Sisivi is a very cold place.

(116) *o-vuuta-a eva riro uteo vuuta*
    SPEC-time-SUB DEM.MED.SG.N big cold time
    It was winter. (Lit., That time was a very cold time.) [John 10:23]
It also functions predicatively as a verb stems, as in (117), where it describes a property of the environment (being cold), and (118), where it describes the feelings of a human agent (feeling cold).

(117) \textit{kasirao-vira uusi-ra-e vokiaro, viapau riro-vira uteo-pa-e}  
\quad hot-ADV sleep-1SG\_IP\_a night \quad \text{NEG} \quad \text{big-ADV} \quad \text{cold-CONT-IP}\_a  
Last night it was really hot sleeping because it wasn’t very cold.

(118) \textit{Vivura ora-raku-ro-i varo-a=ia uvare riro-vira}  
\quad Vivura RR-cover-3SG.M\_a-PRES\_a clothing-SG.N=ABL because big-ADV \quad \text{uteo-pa-ro-i, uvare kokeva=ia kare-ro-e eisi=va}  
be\_cold-CONT-3SG.M\_a-PRES\_a because rain-SG.F=ABL return-3SG.M\_a-PRES\_a LOC=ABL \quad \text{koovo-a}  
work-SG.N  
Vivura covered up with a jacket because he was really cold because he returned from the garden in the rain.

However, the stem \textit{aire} ‘new’ requires the suffix \textit{-pa} in order to modify a noun, as in (119), where it modifies the noun \textit{kepa} ‘house’, or (120), where it modifies the noun \textit{kovovai} ‘some garden’. It does not appear to be able to function as a verbal predicate (at least no examples of such a usage are attested anywhere in the materials available to the author).

(119) \textit{Kokora \text{ira aire-pa kepa pau-pa-re}}  
\quad Kokora PRO.3.SG.M new-DERIV house build-CONT-3SG.M\_\beta  
Kokora is building a new house.

(120) \textit{vego-a toe-pa-i oira-ra aire-pa kovo-vai=re}  
\quad bush-SG.N cut-CONT-3PL\_\beta man-PL.N new-DERIV garden-INDEF=ALL  
The people are cutting the bush for the new garden.

\section*{5.2.6 Adverbs}

Adverbs represent a large and somewhat disparate class of elements in Rotokas that serve as nonsubcategorized modifiers (adjuncts). As Butt et al. (1999:133)’s observes, “Adverbs carry so considerably with regard to syntactic distribution and semantic content that the grammatical category of adverb is often used as a kin of catch-call category for lexical items that one is at a loss to define.”
The Rotokas lexicon possesses a large number of adverbs due to the productivity of the suffix -vira, which derives adverbs from other parts of speech. Many different types of adverbs can be derived with -vira: sentential, as in (121); directional, as in (122); degree, as in (123); manner, as in (124); and time, as in (125).

**Sentential**

(121) *sirao-vira rutu uvare aako upo-ri-voi*  
  pity-ADV very because mother hit-2SG$_\beta$-PRES$_\beta$  
  Sadly, you killed my mother. [FirchowSect3Text09.txt:70]

**Directional**

(122) *iipa-vira iipa-u voo=re*  
  ascend-ADV ascend-2SG$_\alpha$ here=ALL  
  You come up here.

**Degree**

(123) *vioro varavara-vira tou-pa-i*  
  ripe near-ADV be-CONT-PRES$_\beta$  
  It is nearly ripe.

**Manner**

(124) *aavu-va gapu-vira sisiu-pa-o-i eisi Ivitu*  
  grandparent-SG.M naked-ADV bathe-CONT-3SG.$F_\alpha$-PRES$_\alpha$ LOC Ivitu  
  Grandmother is bathing naked in Ivitu (a river near the village of Togarao).

**Temporal**

(125) *voki-pa-vira ava-pa-ra-i Togarao iare*  
  day-DERIV-ADV go-CONT-1SG$_\alpha$-PRES$_\alpha$ village_name POST  
  I’m going to Togarao tomorrow.

There are also interrogative adverbs, as illustrated in (126).

(126) *aavio-pa-vira ora-vasike-pa-u eisi-re Togarao*  
  when-DERIV-ADV RR-leave-CONT-2SG$_\alpha$ LOC=ALL Togarao  
  When are you going to Togarao?
There are a number of words that do not take the suffix -vira but could nevertheless be classified as adverbs to the extent that they serve as adjunct modifiers. In other words, these words play an adverbial role but lack any overt morphology indicating their part of speech (i.e., the suffix -vira). A number of these terms are listed in Table 5.16.

<table>
<thead>
<tr>
<th>Time Word</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>tuariri</td>
<td>“long ago”</td>
</tr>
<tr>
<td>aruvea</td>
<td>“yesterday”</td>
</tr>
<tr>
<td>vokipaua</td>
<td>“morning”</td>
</tr>
<tr>
<td>vokipakou</td>
<td>“early morning”</td>
</tr>
<tr>
<td>vokiaro</td>
<td>“afternoon”</td>
</tr>
<tr>
<td>vokiario</td>
<td>“night”</td>
</tr>
<tr>
<td>ovoiaro</td>
<td>“afternoon”</td>
</tr>
<tr>
<td>ovoiarovi</td>
<td>“late afternoon”</td>
</tr>
</tbody>
</table>

Table 5.16 Rotokas Time Words

Like adverbs derived with -vira, these time words are flexible in their ordering, although they generally occur at the sentence periphery—i.e., at the beginning or end of sentences, as illustrated by (127), or at the end, as in (128).

(127) aruvea rokoroko kare keke-io-vo
yesterday frog FP look.at-1PL.EXCL-1Pβ
Yesterday we looked at frogs.

(128) Raratuiri ragai-re kasipu-ro-e aruvea
name PPRO.1.SG=ALL angry-3SG.M-1Pα yesterday
Raratuiri was angry with me yesterday.

Note that aruvea ‘yesterday’ occurs bare in (127) and (128); it cannot in fact take oblique marking. Some time words can occur with peripheral marking. For example, vovokio ‘today’ occurs with the oblique marker =ia in (130), and would therefore be analyzed as a noun rather than as an adverb.

(129) riro-a kopii-a tou-pa-i-voi vovokio=ia
big-SG.N die-SG.N be-CONT-3PLβ-PRESβ today=ENC
Serious illness exists today.

(130) vovokio=ia oira-ra uu-pa-a-i ora-reo-sia
today=LOC man-HUM.PL meet-CONT-3PLα-PRESα RR-talk-DEP.SIM
Today people are meeting to talk.
5.2 An Inventory of Rotokas Word Classes

There are two other words that also serve as adjunct modifiers to verbs and can therefore be characterized as adverbs: *rutu* ‘very’, illustrated in (131), and *riro* ‘big’, illustrated in (132).

(131) *Ruruvu urui arakasi-ei rutu*
Ruruvu village empty-PRES<sub>α</sub> very
Ruruvu village is truly empty.

(132) *itoo-va riro vavata-pa-o-i*
banana-SG.F big heavy-PRES<sub>α</sub>-CONT-3SG.F<sub>α</sub>
The bananas are very heavy.

These two elements also serve to modify other adverbs: *riro* ‘big’ precedes the adverb it modifies in (133) and *rutu* ‘very’ follows the adverb it modifies in (134). The two can also both modify a single adverb, as in (135).

(133) *riro kaekae-vira pau-ra-e uva asisoe-ra-i*
big long-PRES<sub>α</sub> sit-1SG<sub>α</sub>-IP<sub>α</sub> and numb-1SG<sub>α</sub>-PRES<sub>α</sub>
I sat down for a long time and now I’m numb.

(134) *ovoio-vira rutu kare-ra-e atoia=re uvare ragai kavu-i-vo*
last-PRES<sub>α</sub> very return village=ALL because PPRO.1.SG leave-3PL<sub>β</sub>-IP<sub>β</sub>
I returned to the village last because they left me.

(135) *Asiravi riro-va riako-va iringa riro patura-vira rutu*
Asiravi big-SG.F woman-SG.F PPRO.3.SG.F big fat-PRES<sub>β</sub> very
*tou-pa-e-veira*
be-PRES<sub>β</sub>-CONT-3SG.F<sub>β</sub>-HAB
Asiravi is a big woman who is really fat.

The modifiers *rutu* provide some evidence for lumping time words together with adverbs, since it occurs with adverbs, as shown above, as well as with time words, as can be seen from (136) and (137).

(136) *vokiaro rutu pou-io-viro eisi=va vara-vira*
night very arrive-1PL.EXCL-LOC=ABL ???-ADV
Late at night we arrived from above.

(137) *aure, ari eera ava-ro-e vokipaua rutu*
yes but MED.SG.M go-3SG.M<sub>α</sub>-IP<sub>α</sub> morning very
Yes, but he went in the morning.
5.2.7 Postpositions

There is a class of postnominal modifiers which Firchow (1987) labels “relator particles” due to the fact that they are used to mark the semantic relation of the nominal that they modify. These modifiers are analyzed here as postpositions, which can be divided into two subclasses by phonological weight: monosyllabic, illustrated in (138) and (139), and polysyllabic, illustrated in (140) and (141). Due to phonological constraints on stress assignment that require the minimal phonological word to be a foot (see §4.2.2), the monosyllabic postpositions behave as clitics while the multisyllabic postpositions are able to act as words.

Monosyllabic

(138) Vago aapaapau-vira ava-ro-era $\alpha$ eisi=re $\alpha$ Kieta
Vago visit.RDP-ADV go-3SG.$\alpha$-DP.$\alpha$ LOC=ALL Kieta
Vago went visiting to Kieta.

(139) Eravaa iare kakae vure=va iipa-ro-era $\alpha$ Paravi evoa voka-sia
Mt.Balbi POST child FP=ABL go.up-3SG.$\alpha$-DP.$\alpha$ Palavi there walk-DEP.SEQ
Palavi went on top of Mt. Balbi with the children and they’re going walking.

Polysyllabic

(140) ava-pa-ra-i $\alpha$ ragai vo-kepa-aro $\alpha$ iare
go-CONT-1SG.$\alpha$-PRES.$\alpha$ PPRO.1.SG SPEC-house-POSS POST
I am going home (literally: to my house).

(141) uva uusi-ro-epa ovi-toa tapo urua=ia
so sleep-3SG.M.$\alpha$-RP.$\alpha$ son-SG.M also bed=LOC
So he slept with the son in bed. [Firchow74Sect3Text01.txt: 17]

The full list of these forms is provided below in Table 5.17.\(^7\)

\(^7\)According to Firchow (1973), there is also a postposition kerete ‘inside out/reverse’, but no examples of it have appeared in the corpus and it is therefore not included in Table 5.17.
### Table 5.17 Rotokas Postpositions

<table>
<thead>
<tr>
<th>Type</th>
<th>Postposition</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosyllabic</td>
<td>re</td>
<td>“to”</td>
</tr>
<tr>
<td></td>
<td>pa</td>
<td>“for”</td>
</tr>
<tr>
<td></td>
<td>va</td>
<td>“from”</td>
</tr>
<tr>
<td></td>
<td>ia</td>
<td>“at”</td>
</tr>
<tr>
<td>Polysyllabic</td>
<td>arova</td>
<td>“without”</td>
</tr>
<tr>
<td></td>
<td>iare</td>
<td>“towards”</td>
</tr>
<tr>
<td></td>
<td>iava</td>
<td>“from, about”</td>
</tr>
<tr>
<td></td>
<td>sirova</td>
<td>“behind”</td>
</tr>
<tr>
<td></td>
<td>tapo(ro)</td>
<td>“also, too, with”</td>
</tr>
</tbody>
</table>

The glosses provided in Table 5.17 are for the most typical meaning of a particular form and are therefore not exhaustive. Many of these forms are polysemous and mark more than one semantic role, as shown in Table 5.3. It is difficult to find a gloss for each postposition.
5.2 An Inventory of Rotokas Word Classes

Case Marker

=ia (LOC)
Location  Time  Instrument  Topic

=va (COM)
Comitative  Source

=re (ALL)
Goal  Addressee

=pa (BEN)
Benefactive  Recipient

Figure 5.3 Postpositional Enclitics and Their Associated Semantic Roles
Two of the polysyllabic postpositions appear to be further segmentable: *iare* as *=ia* plus *=re* and *iava* as *=ia* and *=va*. Given that the *=ia* is a generic locative, the forms *=iare* and *=iava* appear to involve further semantic specification in terms of path (source with *=va* or goal with *=re*). The postpositions *=va* and *=re* differ from their polysyllabic counterparts in at least two respects. First, there are a number of contexts where a polysyllabic form is incompatible with its monosyllabic counterpart (e.g., the inalienable possession construction discussed in §3). Second, verb roots that take an oblique argument select for a monosyllabic postposition but not for polysyllabic ones (e.g., *kuara* ‘yell at’ selects the monosyllabic postposition *=va*). Finally, the monosyllabic and polysyllabic forms differ with respect to allophonic variation. The third person singular normally takes the form -*toa* when it occurs without additional morphology, but it obligatorily takes the form -*toa* when it occurs with a suffix or enclitic, as in (142) to (143).

(142) *oira-toa-re* *sirava-pa-ro-i* *rakoru-to*
    man-SG.M=ALL hiss-CONT-3SG.M_α- snake-SG.M
    The snake is hissing at the man.

(143) *tavaa-toa=* *ia* *varo-a* *turupa-e*  *Salome*
    needle-SG.M=LOC clothes-N sew-CONT-3SG.F_β-? Salome
    Salome is sewing up clothing with a needle.

Unlike the locative enclitic *=ia*, the postpositions *iare* and *iava* do not obligatorily co-occur with the form *toa*. In some cases, postpositions occur with the form *to* as in (144) and (145).

(144) *kakae-to* *iava* *girigirio kapua-o-e*
    child-SG.M POST grill sore-3SG.F_α-RP
    The boy’s armpits had sores.

(145) *pore-ro-epa* *atoi-a*=*re* *uva riro-vira gau-re-va*
    turn.back-3SG.M_α-RP_α village-SG.N=ALL and big-ADV cry-3SG.M_β-RP_β
    atoi-a=pa sirao-oro
    village-SG.N=BEN feel.sorry-DEP.SIM
    He turned back towards the village and cried feeling sorry for his village.

In other cases, postpositions occur with the form *toa*, as in (146) and (147).

(146) *tuuvuu-ra-i* *koko-toa iava uvare ora-tugururu-a-e*
    tuuvuu-1SG.α-PRES_α leg-SG.M POST because RR-???-1SG.α-IP_α
    My leg sweloed up because I bumped it.
5.2 An Inventory of Rotokas Word Classes

(147) *Taupirie goeto vera-e-voi osirei-toa iava*

Taupirie sleep remove-3SG.Fβ-PRESβ eye-SG.M POST
Taupirie is removing the sleep from his eye.

(148) The characterization of the monosyllabic forms as particles is questionable, given that the term particle is usually used for words and these forms show many of the properties typically associated with clitics or affixes (Zwicky and Pullum, 1983; Zwicky, 1985).

As Zwicky (1985) observes, “if an element is bound, and especially if it cannot occur in complete isolation, it should be a clitic”. The postpositions in Rotokas are bound morphemes—i.e., they do not occur in isolation but always appear attached to another element—and by this criterion are more clitic-like than particle-like. They are also the final element in a noun phrase, as can be seen in (149) and (150), where it will be seen that the case enclitics occur rightmost relative to other morphemes (the possessive marker in (149) or the indefinite marker in (150)).

(149) *ragai vato-pa-a-veira ragai taataa-irara-aro=pa*

PRO.1.SG respect-CONT-1SGα-HAB PPRO.1.SG brother-HUM.PL-POSS=BEN
I always respect my brothers.

(150) *Paoro opita-ara-vai=va urio-u-vere*

P. coconut-PL.N-INDEF=COM come-2SGα-NF
Paoro, you will come with some coconuts.

Another commonly-cited characteristic of particles is their ability to occur with full phrases—i.e., to occur at the boundary of a phrase rather than on the head noun. As Zwicky (1985) observes, clitics are in this respect somewhat indeterminate between affixes and words: “Inflectional affixes combine with stems or full words, whereas words combine with other words or with phrases.” In Rotokas, case markers combine with phrases, as can be seen in (151) and (152).

(151) *kokeva voki-ara rutu-ia kove-pa-o-i*

rain day-PL.N very=ABL fall-CONT-3SG.Fα-PRESα
It rains every day.

(152) *Isivairi koorato kapara-re-voi eto kasi raga=ia*

Isivairi possum roast-3SG.Mβ-PRESβ fire only=ABL
Isivairi is cooking possum by fire alone.
The analysis of the role markers becomes less clearcut where morphologically simplicity is concerned. Zwicky and Pullum (1983) observes that “a morphologically complex item is probably an independent word”. By this criterion, a few of the polysyllabic relators would qualify as words, but not the monosyllabic relators.

The analysis adopted here treats both monosyllabic and polysyllabic relators as members of a single class and attributes differences between them to phonological considerations. Since there appears to be a foot minimality requirement for phonological words in Rotokas, the cliticization of monosyllabic relators essentially falls out on independent grounds (see §4.2.2).

### 5.2.8 Interrogatives

Interrogatives are listed here as a distinct word class because they have a number of properties which distinguish them from the word classes to which they might otherwise be assigned (e.g., pronoun). Their most salient property is their restriction to clause-initial position, as illustrated for the interrogatives eake ‘what’ and apeisi ‘how’.

(153)  *irou-toa* vii *vai*si-aro  
who-SG.M PPRO.2.SG name-POSS  
What is your name?

(154)  *Kepi, eake=*re *ragai=*va *paupau-pa-u*  
Kepi what=ALL PRO.1.SG=COM race-CONT-2SG$_\alpha$  
Kepi, why are you racing with me?

The full list of interrogatives is is provided in Table 5.18, where they are divided into two groups, according to their ability to stand alone as question words.

<table>
<thead>
<tr>
<th>Type</th>
<th>Interrogative</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free-Standing</td>
<td><em>apeisi</em></td>
<td>“how”</td>
</tr>
<tr>
<td></td>
<td><em>ovi</em></td>
<td>“where”</td>
</tr>
<tr>
<td></td>
<td><em>irou</em></td>
<td>“who”</td>
</tr>
<tr>
<td></td>
<td><em>eake</em></td>
<td>“what”</td>
</tr>
<tr>
<td>Modifier</td>
<td><em>aa</em></td>
<td>“which”</td>
</tr>
<tr>
<td></td>
<td><em>arorea</em></td>
<td>“which (person)”</td>
</tr>
<tr>
<td></td>
<td><em>ovi</em>royu*</td>
<td>“how many”</td>
</tr>
<tr>
<td></td>
<td><em>avoviroa</em></td>
<td>“how much”</td>
</tr>
<tr>
<td></td>
<td><em>roroa</em></td>
<td>“how much”</td>
</tr>
</tbody>
</table>

Table 5.18 Interrogatives in Rotokas

92
The first group of interrogatives stand alone as replacements for questioned elements while the second group co-occurs either with other interrogatives or with nouns, as illustrated in (155) and (156).

(155) \textit{apeisi roro-a moni-a vii ruvara=ia tou-pa-i}

\begin{verbatim}
how much-SG.N money-SG.N PPRO.2.SG near=LOC be-CONT-3PL_{\beta}
\end{verbatim}

How much money do you have on you?

(156) \textit{avoviroa o-ua-vu varo ua vori-aro}

\begin{verbatim}
avoviroa SPEC-CLASS-ALT clothing CLASS price-POSS
\end{verbatim}

How much is the price of one article of clothing?

Interrogatives occur with some of the same morphology as nouns, as illustrated in (157), where an interrogative occurs with the diminutive suffix, or (158) through (159), where interrogatives occur with postpositions.

(157) \textit{ra apeisi-vai tarai-a-ve}

\begin{verbatim}
and how-INDEF know-3PL_{\alpha}-SUB
\end{verbatim}

And they probably didn’t understand how. [Firchow (1987:Sect1Text5)]

(158) \textit{eake=pa vii upo-re-vo}

\begin{verbatim}
what=BEN PRO.2.SG hit-3SG.M_{\beta}-IP_{\beta}
\end{verbatim}

Why did he hit you?

(159) \textit{ovaiaro-vi avue ovu=re ava-pa-u}

\begin{verbatim}
afternoon-DIM in-law where=ALL go-CONT-2SG_{\alpha}
\end{verbatim}

Afternoon, in-law, where are you going?

The occurrence of interrogatives with morphology normally associated with nouns suggests that interrogatives are nouns, but they show behavior that makes them at least a distinct subclass. For example, the interrogative \textit{irou} ‘who’ replaces nouns referring to human beings when they are questioned, but it does not behave like a typical human noun (Class 1—cf. \S 5.2.1.1), given that it can behave as a masculine, feminine, or neuter noun, as illustrated in (160) through (162). It takes the masculine singular suffix in (160), the feminine singular in (161), and no suffixes in (162) (where it also shows the zero agreement associated with neuter subjects).

(160) \textit{irou-toa eera}

\begin{verbatim}
who-SG.M DEM.MED.3.SG.M
\end{verbatim}

Who is he?
5.2 An Inventory of Rotokas Word Classes

(161) **irou-va**  eira
    who-SG.M DEM.MED.3.SG.M
    Who is she?

(162) **irou**  ragai  **oira-aro**  **torara ou-vo**
    who PPRO.1.SG PPRO.3.SG.M-POSS axe  get-IP<sub>β</sub>
    Who took my axe?

5.2.9 Conjoiners

The final word class is a negatively-defined residual class which consists of what—for lack of a better term—could be labelled “particles” (Zwicky, 1985). These particles are monomorphemic and are unable to be modified morphologically. (The one exception to this characterization is **uvare** ‘because’, which could be analyzed as **uva** ‘and’ plus the allative enclitic =re.) The various words that fall into this category are listed in Table 5.19.

<table>
<thead>
<tr>
<th>Particle</th>
<th>Gloss</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>ari</td>
<td>but</td>
<td>Concession</td>
</tr>
<tr>
<td>oisio</td>
<td>that</td>
<td>Complementizer</td>
</tr>
<tr>
<td>osia</td>
<td>as</td>
<td>Comparative</td>
</tr>
<tr>
<td>ora</td>
<td>and</td>
<td>Conjunction</td>
</tr>
<tr>
<td>ovusia</td>
<td>while</td>
<td>Temporal</td>
</tr>
<tr>
<td>ra</td>
<td>and</td>
<td>Complementizer</td>
</tr>
<tr>
<td>teapi</td>
<td>lest</td>
<td>Apprehensional</td>
</tr>
<tr>
<td>uvare</td>
<td>because</td>
<td>Causal</td>
</tr>
<tr>
<td>uva</td>
<td>so</td>
<td>Conjunction</td>
</tr>
<tr>
<td>vosia</td>
<td>if/when</td>
<td>Conditional</td>
</tr>
</tbody>
</table>

Table 5.19 Particles

The use of a few of these particles is illustrated in (163) through (166) (see §7.3.3 for more detailed discussion of their role in interclausal syntax).

(163) **Pita keekee-pa sigo-a**  **ari**  **ragai**  **vearo-a**  **sigo-a**
    Pita break-DERIV knife-SG.N but PPRO.1.SG good-SG.N knife-sg.n
    Peter has a broken knife but I have a good one.
5.2 An Inventory of Rotokas Word Classes

(164) *Pita veta-ara pariparikou-pa-re raiva=ia oisio teapi*
    Pita bamboo-PL.N cross.RDP-CONT-3SG.Mβ road=LOC COMP lest
    oira-ra-vai vo-raiva-ia voka-pa-i-ve
    man-HUM.PL-INDEF SPEC-road-LOC walk-CONT-3PLβ-SUB
Peter put bamboo across the road lest people walk on the road.

(165) *apirika-pa-irara oea kakare-aro oisio osia igei*
    Africa-DERIV-HUM.PL PRO.3.PL.M skin-POS COMP as PRO.1.PL.EXCL
    rupa-irara
dark-HUM.PL
Africans, their skin is like that of us blacks.

(166) *vii ateatepie-pa-a-voi ovusia ira-u*
    PRO.2.SG wait-CONT-1SGβ-PRESβ while go_ahead-2SGβ
I’ll wait for you while you go ahead.

5.2.10 Exclamatives

The final word class is fairly minor and consists of what can be labelled “exclamatives”, which can be defined as words that function solely to mark an utterance as expressing a strong emotional state of the speaker (Sadock and Zwicky, 1985; Michaelis, 2001; König and Siemund, ms). The exclamatives of Rotokas are monomorphemic and occur sentence-initially.

A full list of all known exclamatives is provided in Table 5.20. The glosses provided for these exclamatives are vague and should be considered very provisional, given that an adequate characterization of their meaning would require more detailed study of their pragmatic function (illucutionary force, etc.).

Although the exclamatives are largely monomorphemic, the exclamatives *auo* and *auero* are potentially analyzeable (if not synchronically, then at least diachronically). The exclamative *auo* is used exclusively to address females. In (168), it is used by a man in a folk tale who is addressing a woman who is pursuing him aggressively after being charmed by a magical Jew’s Harp.

(167) *ae apa, auo eaka-u*
    hey wait, hey be.calm-2SGβ
    Hey, wait, woman, settle down! [Firchow and Akoitai (1974:??)]
The exclamative *auoro* is used exclusively to address males. In (168), it is used by one brother addressing another in a short story about two brothers who swim across a river.\(^8\)

(168) *auoro* vore-ve

    hey return-1PL.INCL
    Hey, we’d better go back! [Robinson and Mon (2006: The River)]

The exclamatives *auo* and *auoro* (sometimes pronounced *auero* or increasingly by the younger generation as *avero*) may be morphemically broken down into *au* and a third person singular demonstrative, either *oo* (female) or *-roo* (male). The fact that it is sometimes pronounced as *auero* suggests that it is diachronically related to the particle *aue*, which is used to draw attention to a constituent. Its syntax is described in §7.2.2.

---

\(^8\)(168) is a Rotokas translation of an English sentence, taken from an elementary school reader being developed by the author for the Wakunai school district.
## 5.2 An Inventory of Rotokas Word Classes

### Table 5.20 Exclamatives in Rotokas

<table>
<thead>
<tr>
<th>Exclamative</th>
<th>Gloss</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>aera</td>
<td>All right!</td>
<td></td>
</tr>
<tr>
<td>ae</td>
<td>oh, hey</td>
<td></td>
</tr>
<tr>
<td>aika</td>
<td>wait</td>
<td></td>
</tr>
<tr>
<td>akoea</td>
<td>truly</td>
<td></td>
</tr>
<tr>
<td>apa</td>
<td>hey, eh</td>
<td></td>
</tr>
<tr>
<td>asi</td>
<td>of course</td>
<td></td>
</tr>
<tr>
<td>auo</td>
<td>Hey!</td>
<td>used to address females</td>
</tr>
<tr>
<td>auoro</td>
<td>Hey!</td>
<td>used to address males</td>
</tr>
<tr>
<td>aure</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>aviova</td>
<td>of course not, since when</td>
<td></td>
</tr>
<tr>
<td>eagara</td>
<td>Let it be!</td>
<td></td>
</tr>
<tr>
<td>eari</td>
<td>okay, all right</td>
<td></td>
</tr>
<tr>
<td>easi</td>
<td>why of course</td>
<td></td>
</tr>
<tr>
<td>eaviova</td>
<td>no, of course not</td>
<td></td>
</tr>
<tr>
<td>ee</td>
<td>hey, eh</td>
<td></td>
</tr>
<tr>
<td>eesia</td>
<td>It isn’t!</td>
<td></td>
</tr>
<tr>
<td>ie</td>
<td>Here take it!</td>
<td></td>
</tr>
<tr>
<td>iiu</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>kie</td>
<td>Watch out!, be careful!</td>
<td></td>
</tr>
<tr>
<td>oire</td>
<td>okay, all right</td>
<td></td>
</tr>
<tr>
<td>oo</td>
<td>oh</td>
<td></td>
</tr>
<tr>
<td>ovuvaia</td>
<td>No!</td>
<td></td>
</tr>
<tr>
<td>paapu</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>raa</td>
<td>Eh!, so?!</td>
<td></td>
</tr>
<tr>
<td>tape</td>
<td>Stop!</td>
<td></td>
</tr>
<tr>
<td>tepa</td>
<td>Hey!</td>
<td></td>
</tr>
</tbody>
</table>
This chapter provides an overview of the morphology of Rotokas, which shows a strong preference for suffixation and can be characterized as agglutinative, following Comrie (1989:43)’s definition: “a word may consist of more than one morpheme, but the boundaries between morphemes in the word are always clear-cut; moreover, a given morpheme has at least a reasonably invariant shape, so that the identification of morphemes in terms of their phonetic shape is also straightforward.” The main exceptions to this generalization are the various pronominal paradigms (see §5.2.3) and the verbal morphology for tense/mood (see §6.2.2.7), where the morphemic segmentation is somewhat less straightforward.

A distinction is often drawn between two different types of morphology: derivational and inflection. Concerning this distinction, Anderson (1985:162) writes:

The central insight of this opposition is that derivation produces new lexical items (perhaps complete words, perhaps stems) from other lexical material, with the derived items on a par with simple, undervived ones as far as their role in grammar is concerned; while inflection on the other hand serves to ‘complete’ a word by marking its relations within larger structures. Inflection typically marks categories which are applicable (at least potentially) to any item in a given word class, rather than being specific properties of individual lexical items.

For descriptive convenience, inflectional and derivational morphology will not be dealt with separately in this chapter. Although there is very little derivational morphology associated with nouns, there is a good deal of it associated with verbs, and this is given in-depth treatment in Chapter 10, which looks at the various valency-changing derivations found in the language.
6.1 Nominal Morphology

The template for nominal morphology is provided in Figure 6.1. Morphemes are listed according to their order of occurrence, which is strictly transitive (i.e., if \( A > B \) and \( B > C \), then \( A > C \)). The only required morpheme is the nominal root; all other morphemes are strictly-speaking optional (although noun roots normally take a gender/number suffix).

<table>
<thead>
<tr>
<th>Specifier</th>
<th>Root Noun</th>
<th>Derivational</th>
<th>Gender/Number</th>
<th>Possession</th>
<th>Diminutive</th>
<th>Alternative</th>
<th>Definiteness</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>{ vo- }</td>
<td>{ o- }</td>
<td>N</td>
<td>-pa</td>
<td>{ -( a ) }</td>
<td>-aro</td>
<td>-vi</td>
<td>-vu</td>
</tr>
<tr>
<td>{ ora- }</td>
<td></td>
<td></td>
<td></td>
<td>{ -ara }</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6.1 Nominal Morphology

6.1.1 Prefixes

There are two mutually exclusive sets of prefixes that occur with nouns: the reflexive/reciprocal marker \( ora- \) and the specifier \( vo- \). (There is also a prefix, \( a- \), which co-occurs with the alternative suffix and is analyzed here as a circumfix—see §6.1.2.5.)

6.1.1.1 Reflexive/Reciprocal Marker

The reflexive prefix \( ora- \) occurs with pronouns as well as verbs (cf. §6.2.1.1). It has three semantic functions: reflexive, reciprocal, or emphatic/contrastive.

**Reflexive**    The reflexive function of the prefix \( ora- \) is illustrated in (169).
Reciprocal  The reciprocal function of the prefix *ora*- is illustrated in (170).

(170) *vo-vokiaro uva oisoa *ora-vaiterei ruvara=ia uusi-pa-si  
SPEC-night so always RR-DEM.MED.M.DL close=ABL sleep-CONT-3DL.M  
During the night they slept next to each other. [Robinson and Mon (2006:Cricket&Grasshopper)]

Emphatic/Contrastive  The emphatic/contrastive function of the prefix *ora*- is illustrated in (171).

(171) *ora-ragai raga ava-pa-ra-i Ruruvu iare*  
RR-PRO.1.SG only go-CONT-1SGα-PRESα village POST  
I myself am going to Ruruvu./I am the one going to Ruruvu.

6.1.1.2 Specifier

The nominal prefixes *vo-* can be described as specifier, to the extent that [??].

1 It occurs with both nouns and classifiers, as illustrated in (172) and (173), but not with pronouns.

Specifier with Noun

(172) *oira-to ira vo-riako situe-pa-re osia*  
man-SG.M RPRO.3.SG.M SPEC-woman watch-CONT-3SG.Mβ as  
siisiu-pa-a-i  
bathe-CONT-3PLα-PRESα  
The man is watching the women as they bathe.

---

1 Firchow (1987:34) describes the prefix *vo-* as “the specific morpheme”.

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Specifiers with Classifier

(173) Savia veeta tou pokopoko-pie-e-voi uvare vo-tou
Savia bamboo CLASS pop.RDP-CAUS-3SG.Fβ-PRESβ because SPEC-CLASS
tovo-e-vo tuitui kasi sovara=ia
put-3SG.Fβ-IPβ fire inside=ABL
Savia made the bamboo pop repeatedly because she put it in the fire.

Firchow (1987:34) treats the form o- as an allomorphic variant of vo- which co-occurs with the alternative suffix -vu, as illustrated in (174), but see §6.1.2.5 for a re-analysis of this prefix as a circumfix.

(174) Rarasori vigei=pa reo-pa vuku ariara-pie-re-va
Robinson PPRO.1.PL.INCL=BEN word-DERIV book on top-CAUS-3SG.Mβ-RPβ
oa iava uvui-pa-vi-ei ra o-vaisi-ro-vu=ia
therefore be.able-CONT-1PL.INCL-PRESα and SPEC-word-PL.CL-ALT=ABL
tarai-pa-vio
know-CONT-1PL.INCL
Robinson prepared a dictionary for us and that’s why we can know about other words.

6.1.2 Suffixes

6.1.2.1 Order 1 Suffix: Derivational

The suffix -pa derives instrumental/agentive nouns from various parts of speech (noun, verb, etc.): for example, the agentive noun oripato ‘chef/cook’ is derived from the verb ori ‘cook’ while the agentive noun vovokiopairara ‘people of today’ derives from the temporal noun vovoko ‘today’.

(175) ori-pa-to Raka eisi ruvaru-pa kepa
cook-DERIV-SG.M Raka LOC heal-DERIV house
Raka is the cook at the medical station.

(176) vovoko-pa-irara riro kaureo-irara aite-irara=re
today-DERIV-HUM.PL big arrogant-HUM.PL father-HUM.PL=ALL
The people of today are arrogant to their parents.

2The suffix -pa is described as the “instrument-agent marker” by Firchow (1987:35–36), who observes: “The instrument-agent (agt) marker -pa nominalizes adjectives and verb stems and also signals that a following suffix or bound stem is manifesting the agent.”
Instrumental nouns are also derived with this suffix: for example, the noun *atepato* ‘scale’ derives from the verb stem *ate* ‘weigh, measure’, as in (177) (which also illustrates the use of *ate* ‘weigh’ as a verb root).

(177) Maikol ira kakau vaeke-ro ate-pa-re-voi *atepatoa=ia*

Maikol RPRO.3.SG.M cocoa CL-PL.CL weigh-CONT-3SG.M_β-PRES_β scale=ABL
Michael weighs the cocoa on a scale.

There are a number of instrumental nouns for which the suffix -*pa* is optional, such as *erito* ‘shovel’ (derived from *eri* ‘dig’), which occurs with the suffix -*pa* in (179) but without it in (178). Elicitation work with native-speakers reveals no apparent difference in meaning between the two forms, and should therefore be considered a case of free variation.

(178) Riki *eripatoa=va urio-u apui teka-sia*

Riki shovel=COM come-2SG_α hole dig-DEP.SEQ
Riki, come with a shovel to dig a hole.

(179) *avu-va eritoa=ia opo pau-sia ava-o-e eisi kovo-a*

grandparent-SG.F shovel=ABL taro dig-DEP.SEQ go-3SG.F_α-IP_α LOC garden-SG.N
Grandma went to plant taro with a shovel in the garden.

The suffix -*pa* also functions as a derivational suffixes for a subset of verbal roots when they play an attributive role, as illustrated in (??), where the verb root *ruvaru* ‘???’ modifies the noun *kepa* ‘house’.

Finally, the suffix -*pa* also occurs as an aspectual marker (see §5.2.6 for details) on verbs. It is unclear which of the two functions (derivational versus aspectual) is instantiated when -*pa* occurs on adverbs see §5.2.6, as illustrated in (??) and (??).

(180) *vuri-a vao uuko-a oa tuvu-pa-vira tou-pa-i osa ra*

bad-SG.N ?? water-SG.N RPRO.3.SG.N muddy-?-ADV be-CONT-3PL_β as and
va=ia ukaio-pa-u
PRO.3.SG.N=ENC drink-CONT-2SG_α
Water that is muddy is bad, as you can’t drink from it.

6.1.2.2 Order 2 Suffixes: Number/Gender

**Gender/Number**  The full set will not be exemplified here, since the gender/number markers were already discussed in detail in §5.2.1.1. There is allomorphic variation in the realization of the masculine singular: when it is followed by another suffix, its form is -*toa* rather than -*to*, as in (181) and (??).
You can’t see a man in the dark.

A taproot goes deep into the ground.

The distribution of -toa is wider than that of -to, since -toa also occurs even when it is not followed by another suffix, as illustrated in (183).

You’re a smart boy.

The most common form of possession marking occurs on the possessed noun as the suffix -aro (see §7.1.1 for an overview of possession-marking strategies).

Puruata is a little island that is in Torokina.

Puruata is another small island that is in Torokina.
The suffix -vu is described as an “alternative marker” by Firchow (1987:38) because it normally functions contrastively, essentially conveying the meaning of “other”. Firchow (1987:38) observes that the alternative marker obligatorily occurs with the prefix o-, as illustrated in (190).

However, the prefix is realized as a- only on consonant-initial stems. On vowel-initial stems, the prefix is not realized (i.e., is null or zero realized), as illustrated in (191).

Given that the two affixes obligatorily co-occur, they can be analyzed as a single discontinuous morpheme, the circumfix o- . . . -vu, which is subject to the allophonic variation described in (192).
(192) \(-o \Rightarrow -\emptyset \_V\)

The use of the alternative suffix presupposes the existence of a contrastive alternative, whether it is explicitly mentioned or simply implied. For example, in (194), a child mentioned by name (Rivasiri) is contrasted with other children, whereas (193), the alternative (the other side of the body) is not explicitly mentioned, but is nevertheless implied, given real-world knowledge.

(193) vo-voki-ro       rutu=ia  Rivasiri visiko ruipa-pa-ro-veira
     SPEC-day-PL.CL very=ABL Rivasiri play want-CONT-3SG.M\_HAB
     o-kakae-ro-vu       taporo
     SPEC-child-PL.CL-ALT also
     Rivasiri also ways to play with the other children.

(194) o-varata-vu       keke-pa-ri      ragai    iava
     SPEC-side-ALT look-CONT-2SG.\_PRO.1.SG POST
     Look at the other side of me.

The alternative marker can be found with classified nouns, as in (195); resumptive pronouns, as in (196); question words, as in (197); and free-form pluralizers, as in (198).

(195) viapau uvui-pa     ra ikau-vira o-vaisi-vu     vaisi-re-ve     uvare
     NEG able-CONT and run-ADV SPEC-nameCLASS-ALT call-3SG.M\_SUB because
     vapavapa-vira       reo-pa-ro-veira
     unfamiliar-ADV talk-CONT-3SG.M\_HAB
     He can’t say words quickly because he speaks strangely.

(196) opeita ira-vu       roviriei-pa-ri  rera      vo-pitupitu-aro=ia
     don’t RPRO.3.SG.M judge-CONT-2SG.\_PPRO.3.SG.M SPEC-habit-POSS=ABL
     Don’t judge another because of their customs.

(197) Pita eakea-vu-a    eva
     Pita what-ALT-? DEM.MED.SG.N
     Peter, what is that (other thing)?

(198) o-kare-vu          koie kare kou-e-vo     ita    aako-va
     SPEC-CLASS-ALT pig FP carry-3SG.F\_IP.\_again mother-SG.F
     The mother carried the other pigs.
The alternative suffix precedes the indefinite suffix, as illustrated in (199).

\[(199) \quad \text{sipito voea tavi-re orekerovua-vu-vai ou-sia vo=re} \]

\text{chief PPRO.3.PL tell-3SG.M\_3 something-ALT-INDEF get-DEP.SEC here=ALL}

\text{atoi-a eisi-va kovo-ara}

\text{village-SG.N LOC-ABL work-PL.N}

The chief talked to everyone about getting something from the garden to the village.

### 6.1.2.6 Order 6 Suffixes: Definite/Indefinite

#### Indefinite Suffix

The suffix -vai is a marker of indefiniteness (von Heusinger, 2002), which occurs on nouns that are non-specific, unidentifiable, and/or non-referential.\(^3\) For example, it occurs on the noun oirato ‘man’ in (200), which asserts that some unidentified (and perhaps unidentifiable) man will covet the addressee once she is properly adorned.

\[(200) \quad \text{vii orito-a-voi uva vearo keke-irao-u-ei ra}
\]

\text{PRO.2.SG decorate-1SG\_B\_PRES\_B and good look-INTEN-2SG\_A\_PRES\_A and}

\text{oirai-toa-vai vii riri-re-ve}

\text{man-SG.M-INDEF PRO.2.SG covet-3SG.M\_B\_SUB}

I’ll decorate you and you’ll look really good and some man will covet you.

In (201) and (202), the speaker urges the addressee to tear or cut off a plant leaf, without any specific one in mind, in order to use it for medicinal purposes, and in both cases the indefinite leaf appears with the suffix -vai.

\[(201) \quad \text{ito guruva-vai pako-ri}
\]

\text{banana leaf-INDEF tear_off-2SG\_B}

Grab a banana leaf. [Robinson and Mon (2006:“Leaves Will Help You”)]

\[(202) \quad \text{oire ragai=pa katai vagai-vai tosi-ri aue guru-va ra vao}
\]

\text{okay PRO.1.SG=BEN one leaf-INDEF cut-2SG\_B CONN leaf-SG.F and DEM.PROX.SG.N}

\text{ruu-a arua tai}

\text{cover-1SG\_B vegetable CLASS}

Cut one leaf for me and I’ll cover these vegetables.

In (203), for example, the noun oirara ‘people’ occurs with the indefinite suffix due to the fact that it is non-referential—i.e., refers to non-existing entities.

\(^3\)It is glossed as the “non-absolute” suffix by Firchow (1987:39), who claims it conveys “incertitude” or “possibility”.

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Definite Suffix The meaning and function of the suffix \(-i\) is unclear. It is glossed as the “absolute” suffix by Firchow (1987:39), who claims that it conveys certitude and observes that it occurs only with resumptive pronouns, as in (204) and (205). Although very few instances of it occur in the materials available to me, its occurrence does appear to be confined to resumptive pronouns, in line with Firchow’s observations concerning its distribution.

(204) \( \text{varao } \text{rutu}=\text{ia } \text{viato-pie } \text{teapi } \text{oa-i} \)
\( \text{DEM.PROX.PL.N very=}\text{ABL vacant-CAUS lest } \text{RPRO.3.SG.N=}? \)
\( \text{kavu-pa-ri} \)
\( \text{leave.behind-CONT-2SG}_3 \)
Clear everything lest you leave one behind.

(205) \( \text{vosia } \text{koie-a-vai } \text{upo-a } \text{oisoa } \text{iri-a-i } \text{kuvu-a } \text{aue}=\text{ia } \text{veeta} \)
\( \text{when pig-INDEF kill-1SG}_3 \text{always RPRO.3.SG.F=}? \text{ fill-1SG}_\alpha \text{ CONN=}\text{ABL bamboo} \)
When I would kill a pig, I would always put it inside bamboo tubes. [Firchow (1984:???)]

6.2 Verbal Morphology

There is a good deal of morphology associated with the derivation and inflection of verb stems in Rotokas, as illustrated by the morphologically complex verb in (206), which consists of a prefix, verb root, and 5 suffixes: the morphological causative, an intensifier, the continuous aspect, third person masculine singular, and the present tense realis mood.

(206) \( \text{Pita } \text{ora-oruo-pie-irao-pa-ro-i } \text{siope-pa-va} \)
\( \text{Peter RR-content-CAUS-only-CONT-3SG.M}_\alpha \text{=PRES}_\alpha \text{ meat-DERIV-SG.F} \)
\( \text{aio-pa-oro } \text{araisi} \)
\( \text{eat-CONT-DEP.SIM rice} \)
Peter really contented himself eating meat-filled rice.

The verb in (206) is broken down into its constituent parts in (207).
The template for verbal morphology is summarized diagrammatically in Figure 6.1. Note that the person/number/gender suffixes and the tense/mood suffixes appear in square bracket; this is due to the fact that they come in two sets. Since the nature of these two sets is the focus of the second part of this thesis (see §8), it will suffice for now to label them in a neutral fashion, as Class $\alpha$ and Class $\beta$.\footnote{Firchow (1987) labels the two classes $\gamma$ and $\beta$ but the labels $\alpha$ and $\beta$ are used here instead.}
### 6.2 Verbal Morphology

<table>
<thead>
<tr>
<th>Reflexive/Reciprocal</th>
<th>Root</th>
<th>Causative</th>
<th>Modifier</th>
<th>Progressive</th>
<th>Resultative</th>
<th>Person/Number/Gender</th>
<th>Tense/Mood</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

- **ora-**
  - pie \{ -irao \, -raga \}
  - pa \{ -viro \, -piro \}

- **-ra\_a**
- **-u\_ri**
- **-ro\_re**
- **-o\_e**
- **-io**
- **-ve**
- **-si**
- **-ta**
- **-a\_i**

- **-epa\_va**
- **-era\_vora**
- **-erao\_vorao**
- **-e\_vo**
- **-ei\_voi**

- **-pe\_ve**
- **-pere\_vere**
- **-perea\_verea**
- **-peira\_veira**

- **-arapa**
- **-sia**
- **-oro**

**Figure 6.1** Verbal Morphology
6.2.1 Prefixes

6.2.1.1 Order 1 Prefix: Reflexive/Reciprocal

There is only one verbal prefix, the reciprocal/reflexive marker, *ora* (which, as shown earlier in §6.1.1, also occurs with personal pronouns). Verb stems occurring with the reflexive/reciprocal suffix are invariably $\alpha$, as illustrated by the contrast between the reflexive and non-reflexive forms of the verb root *upo* ‘hit, kill’ in (208).

(208) a. *rera*  
    *upo-re-*va  
    PPRO.3.SG.M kill-3SG.M$\beta$-RP$_\beta$  
    He killed him. [Caleb, “Another Togarao Story”]

b. *ra rera*  
    *raga ora-upo-ro*  
    eke  
    and PPRO.3.SG.M only RR-kill-3SG.M$\alpha$ TAG  
    Will he kill himself? [Mark 8:22]

In-depth discussion of *ora* as a valency-decreasing derivational prefix can be found in §10.2.1.

6.2.2 Suffixes

6.2.2.1 Order 1 Suffixes: Causative

The causative suffix -*pie* is a valency-increasing derivational suffix which consistently derives stem that show $\beta$ agreement (see §10.1.2 for in-depth discussion). For example, the verb root *kapua* ‘to have sores’ normally shows $\alpha$ agreement, as illustrated in (209), but shows $\beta$ agreement when it occurs with the causative suffix, as illustrated in (210).

(209) *riako-va*  
    *kapua-pa-o-i*  
    *uvare vatua-to*  
    *oirar*  
    woman-SG.F have_sores-CONT-3SG.F$\alpha$-PRES$_\alpha$ because husband-SG.M PPRO.3.SG.F.B  
    *upo-re-voi*  
    *vuri-vira rutu*  
    hit-3SG.M$_\beta$-PRES$_\beta$ bad-ADV very  
    The woman has sores because her husband has beaten her very badly.

(210) *oirato kapua-pie-i-*vo  
    *rera*  
    *upo-oro*  
    *uvare*  
    *kepar*  
    man have_sores-CAUS-3PL$_\beta$-IP$_\beta$ PPRO.3.SG.M hit-DEP.SIM because house  
    *toko-oro*  
    *koata-ro-e*  
    *torara kaviru-sia*  
    break_into-DEP.SIM enter-3SG.M$_\beta$-IP$_\beta$ axe steal-DEP.SEQ  
    They injured the man by hitting him because he broke into a house to steal an axe.
6.2 Verbal Morphology

6.2.2.2 Order 2 Suffixes: Modifiers

There are two order 2 suffixes, which are -raga and -irao. Each will be described in turn.

-**raga** ‘only/just’  The characterization by Firchow (1987) of this suffix as a marker of “indifference” is dubious. These sentences tend to be translated by informants using the Tok Pisin modifier nating or with the English qualifiers just or only.

(211) oire  tara-raga-pa-io-va
    okay search-only-CONT-1PL.EXCL-RP<sub>α</sub>
    We just searched. (Na mipela i bin painim nating.) [AbrahamRaviata2.txt:14]

The suffix -raga has an unbound counterpart, illustrated in (212) through (213).<sup>5</sup>

(212) katai-toarei-vi  raga  kokai  vaio  aiterea  ou-a-vo
    one-DL.M-DIM only  chicken ANIM.DL PPRO.3.DL.M get-1SG<sub>β</sub>-IP<sub>β</sub>
    I only got two little chickens.

(213) avae-vira  raga  tou-pa-peira  vo-rasio=ia
    temporary-ADV only  be-CONT-1DL+HAB SPEC-earth=ABL
    We’re only temporarily on the earth.

-**irao** ‘really’  Firchow (1987) labels the suffix as a marker of “emphasis” but it is probably better characterized as an intensifier. [CHARACTERIZE MEANING BETTER]

(214) oire  uva  riro-vira  rutu  rugourgoo-irao-ro-epa  rera  aite-to  oisio
    okay and  big-ADV very  think-INTEN-3SG.M<sub>α</sub>-RP<sub>α</sub> PPRO.3.SG.M father-SG.M COMP
    So, his father really thought hard. [?:78]

(215) ari  vovou  tagoro-vira  raga  kasipu-irao-pa-ro-epa
    but  DES  hidden-ADV only  angry-INTEN-CONT-3SG.M<sub>α</sub>-RP<sub>α</sub>
    He was really angry and hid, that’s all. [?:79]

The suffix -irao has an unbound counterpart, which means “true” or “real”, and presumably arose by incorporation into the verb complex. The unbound form is illustrated in (217) through (218).

<sup>5</sup>Note the irregular form of verbal inflection in (213)—see §6.2.2.6 for explanation.
(216) oira-pa-toa rutu **iraoo** vii
    man-DERIV-SG.M very real  PPRO.2.SG
    You’re a true man.

(217) sisiara-pa-toa **iraoo** roo koora-to
    greasy-DERIV-SG.M true  PPRO.3.SG.M possum-SG.M
    Possums are truly greasy.

(218) ruve tai ori-e-voi uva riro-vira ruve-vira **iraoo** uvare riro-vira opita
    ruve CLASS cook-3SG.Fβ-PRESβ and big-ADV big-ADV true because big-ADV coconut
    kuri-o-i vo-tai=re
    scrape-3SG.Fα-PRESα SPEC-CLASS=ALL
    She is cooking aibika, and it is truly greasy because she is scraping a lot of coconut on it.

According to Firchow (1987) the suffixes -**raga** and -**iraoo** are not mutually exclusive, who cites (219), where -**raga** precedes -**iraoo**.

(219) ava-**raga-iraoo**-pa-ra-erao
    go-only-INTEN-CONT-1SGα-NPα
    I really was just going days ago. [(Firchow, 1987:16)]

Finally, there are a few stems that appear to have lexicalized -**iraoo** and therefore display apparent violations of morpheme ordering. For example, the causative suffix -**pie** normally precedes -**iraoo**, as in (220); however, the order is reversed in (221) due to the lexicalization of -**iraoo** in the stem **kasirao** ‘hot’.

(220) kepa viato-**pie-iraoo**-i-vo auero vera-oro
    house clear.out-CAUS-INTEN-3PLβ-1Pβ everything remove-DEP.SIM
    They really cleared out the house, removing everything.

(221) uuko rovu kasirao-**pie** eto kasi=ia
    water CLASS heat-CAUS fire=LOC
    Heat up the water on the fire.

Further evidence for the lexicalization of -**iraoo** in the stem **kasirao** is the fact that they can co-occur, as illustrated in (222), which describes the symptoms of malaria.

(222) vo-rara riro-vira rutu oira-to kasirao-**iraoo**-pa-ro ora uteo-pa-ro
    SPEC-?? big-ADV very man-SG.M hot-INTEN-CONT-3SG.Mα and cold-CONT-3SG.Mα
tapo
    also
    Hence the man is really hot and really cold. [Firchow (1974b:medicine)]
6.2.2.3 Order 3 Suffixes: Continuous

The suffix -pa is the only Order 3 suffix. It is found with both independent verbs, as in (223), and dependent verbs, as in (224).

(223) o-voki-vu=ia ava-ra-era eisi-re Ibu ovusia ora-upo-pa-a-era
SPEC-day-ALT=LOC go-1SG a-NP a LOC=ALL Ibu while RR-hit-CONT-3PL a-NP a
One day I went to Ibu while they fought.

(224) riro-vira rutu roru-pa-oro kauokauo-pa-ra-i
big-ADV very happy-CONT-DEP.SIM jump.RDP-CONT-1SG a-PRES a
I jumped up and down truly happy.

It is glossed as the “progressive action marker” in Firchow (1987:17). However, as Chung and Timberlake (1985:214) observe, the term “progressive” is typically reserved for a category that is restricted to dynamic events:

“More importantly, the opposition between states and process can play a role in the selection of aspectual morphology, specifically the progressive. The progressive asserts than an event is dynamic over the event frame. By definition, then, processes but not states can appear in the progressive.”

The suffix -pa occurs with a wide variety of verbs, including verbs that denote non-dynamic events, such as tarai ‘know’ in (225) and (226). For this reason, it is glossed here as “continuous” rather than “progressive”.

(225) viapau tarai-pa-ra-i motokara voka-pie-pa-oro
NEG know-CONT-1SG a-PRES a car walk-CAUS-CONT-DEP.SIM
I don’t know how to drive a car.

(226) o-kare-vu rutu vaisi-aro=ia tarai-pa-o-i Sera
SPEC FP-ALT very name-POSS=LOC know-CONT-3SG.F a-PRES a Sera
Sera knows the names of all the different animals.

6.2.2.4 Order 4 Suffixes: Resultative Suffix

The resultative suffix takes the form of -viro or -piro. The gender of a verb’s subject determines which of the two forms occurs. The suffix -piro occurs on verbs with neuter subjects, as in (227), while the suffix -viro occurs on verbs with non-neuter subjects, as in (228).7

---

6 This suffix is described as the “complete action” marker by Firchow (1987).
7 Firchow (1987) claims that animacy determines the choice of the two forms. Although gender correlates highly with animacy, there are nevertheless mismatches, primarily with masculine or feminine nouns denoting
(227) *Pita, kaitu-pa-i* eva *iroiro oia va toko-piro-i* varo  
Pita, tight-CONT-PRES$_\alpha$ DEM.MED.SG.N rope hence breakRES-PRES$_\alpha$ clothes  
tava=va  
CL=COM  
Peter, that rope is tight and therefore it broke with the clothes.

(228) *Evato tuuta-to* roe-re-vo *uva gasi-ro-viro*  
Evato post-SG.M place-3SG.M$_\beta$-IP$_\beta$ and fall-3SG.M$_\alpha$-RES  
Evato placed the post and it fell down.

The resultative suffix precedes the tense/mood suffixes and follows the progressive suffix, as illustrated in (229).

(229) *tokaaru oauv kokoa iroa iava pura-pa-piro-veira*  
orchid another flower vine POST make-CONT-RES-HAB  
An orchid is a flower that appears on the vine.

Firchow (1987:15) observes that the allomorph *-piro* co-occurs with the suffixes *-vere*, *-vereia*, *-ve*, and *-veira*, which is unexpected, given that *-piro* normally occurs with neuter subjects while the latter suffixes normally occur with non-neuter subjects. This unexpected co-occurrence is exemplified in (230), where a neuter subject occurs with *-veira*, and in (231), where a neuter subject occurs with *-vere*.

(230) *uuko-vi vavo-va kosikosi-pa-piro-veira* pukui=ia *vitu-aro*  
river-DIM there=ABL exit.RDP-CONT-RES-HAB mountain=ABL base-POSS  
The river gushes out from the base of the mountain.

(231) *vosia katai isi-vai kavu-piro-vera ovoi-ei ra oisio*  
if one CL-INDEF left_behind-RES-NF finish-PRES$_\alpha$ and COMP  
kavu-viro-ve-i-ei  
left_behind-RES-1DL-EPEN-PRES$_\alpha$  
If one [seedling] is left behind, okay, the two of us are left behind. [Firchow (1987:???) ]

* Inanimate entities (e.g., *tuutato* 'post'), and these show that it is gender (not animacy) which is the determining factor—e.g., see (228).
6.2.2.5 Order 5 Suffixes: Dependent Verb Morphology

Independent verbs show subject agreement and tense/mood marking, whereas dependent verbs lack both and instead take one of one of the dependent-marking suffixes listed in Table 6.2 (see §7.3.2.1 on the syntax of dependent verbs).

<table>
<thead>
<tr>
<th>Morpheme</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>-sia</td>
<td>purposive action (“in order to”)</td>
</tr>
<tr>
<td>-oro</td>
<td>simultaneous action (“while”)</td>
</tr>
<tr>
<td>-arapa</td>
<td>negation (“not”)</td>
</tr>
</tbody>
</table>

Table 6.2 Dependent Verb Marking

The three dependent-marking suffixes are illustrated in (232) through (234).

(232) erako-sia ava-pa-i-ei
      collect_firewood-DEP.SEQ go-CONT-1PL.EXCL-PRES
      We’re going to collect firewood.

(233) ogoe-ra-i voka-pa-oro eisi Asitavi
      be_hungry-1SG-PRES walk-CONT-DEP.SIM LOC Asitavi
      I’m hungry walking to Asitavi.

(234) asia-pa-ra-i utu-arapa eisi=re kovo-a
      be_disinclined-1SG-PRES follow-DEP.NEG LOC=ALL garden-SG.N
      I don’t want to come along to the garden.

Firchow (1987:19) observes that the suffix -arare is an alternative form of suffix -sia, but that it is very rare and appears to be archaic. No examples of it are attested in the materials available to the author.

6.2.2.6 Order 5 Suffixes: Person/Number/Gender

The order 5 suffixes fall into two classes on semantic grounds: dependent verb morphology and person/number. The two are mutually exclusive. In other words, a verb stem can either take independent or dependent inflection, but not both. If it takes independent inflection, it must take person/number marking, whereas if it takes dependent inflection, it cannot take person/number marking and must take one of the dependent marking suffixes. Dependent marking also precludes tense/mood marking, which is discussed in §6.2.2.7.
**Person/Number/Gender** Independent verbs agree with their subjects in person, number, and gender. Agreement is nominative-accusative, in the sense that the verb always agrees with either S or A. However, the form of subject agreement depends upon the particular person, number, and gender configuration. Verbal inflection shows distinct forms of subject agreement for some configurations of person, number, and gender (e.g., third person singular), but not for others (e.g., third person dual). For example, the verb root *uusi* ‘sleep’ shows $\alpha$ agreement while the verb root *upo* ‘hit’ shows $\beta$ agreement. The form of verbal inflection for the third person singular feminine differs for the two verb roots: -o in (235) and -e in (236).

(235) *atuu koto-vira uusi-pa-o-i*

flying_fox hang-ADV sleep-CONT-3SG.$F_\alpha$-PRES$_\alpha$

The flying fox sleeps hanging.

(236) *vegei upo-e-voi*

PRO.1.DL.EXCL kill-3SG.$F_\beta$-PRES$_\beta$

She’s killing us two! [Firchow and Akoitai (1974:1,8:59)]

However, verbal inflection for the third person dual masculine shows no distinction between $\alpha$ and $\beta$ agreement. The form of verbal inflection for the third person dual masculine is invariant, as shown by (237) and (238).

(237) *evoa oisioa uusi-pa-si*

there always sleep-CONT-3DL.$M$

The two of them always slept there. [Firchow74Sect1Text07.txt:13]

(238) *osia viapau oisioa koie kare-vai upo-pa-si*

as NEG always pig FP-INDEF kill-CONT-3DL.$M$

But the two did not kill any pigs. [useless_dogs.txt:4]

The full set of person-marking suffixes is summarized in Figure 8.1, where each configuration of person, number, and gender is provided.
6.2 Verbal Morphology

<table>
<thead>
<tr>
<th>Person</th>
<th>Number</th>
<th>Gender</th>
<th>α</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Person</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Singular</td>
<td>-ra</td>
<td>-a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dual</td>
<td>-ve</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plural Inclusive</td>
<td>-vio</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plural Exclusive</td>
<td>-io</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Person</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Singular</td>
<td>-u</td>
<td>-ri</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dual</td>
<td>M -si</td>
<td>-ere</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>F -ere</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plural</td>
<td>-ta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Person</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Singular</td>
<td>M -ro</td>
<td>-re</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>F -o</td>
<td>-i</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dual</td>
<td>M -si</td>
<td>-ere</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>F -ere</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plural</td>
<td>-a</td>
<td>-i</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 6.2** Subject Agreement Suffixes

The paradigmatic structure of the various pronoun paradigms differ slightly from that of the person-marking suffixes, due to the collapsing of the distinction between the second and third person dual in the bound pronouns.\(^8\) This is illustrated in Figure 6.3, where the paradigmatic structure of the personal pronouns (repeated from Figure 5.2) is contrasted with the verbal agreement suffixes following the analytical scheme of Cysouw (2003).

\(^8\)Cysouw (2003) observes that vertical homophony between the second and third person is typical of the Papuan languages, citing as an example the mainland Papuan language Korafe. This remains to be substantiated, but it is worth pointing out that this pattern is not particularly widespread among the East Papuan languages. In fact, it is found in only 4 of the 15 languages surveyed in a comparison of grammatical features described in Dunn et al. (2005)—namely, Mali, Savosavo, Rotokas, and Yélî-Dnye.
The use of two different personal pronouns with the same form of verbal agreement is illustrated in (239) and (240). In both cases, the verbal agreement takes the suffix -\(si\), but the personal pronoun that plays the role of subject is the second person plural \(vei\) in (239) and the third person dual \(vaiterei\) in (240).

(239) \[vei\quad rogo\quad rovo-pa-si-ei\quad ikau-or\]

\[\text{PRO.2.PL begin start-CONT-2DL-PRES}_\alpha\text{ run-DEP.SIM}\]

You two start running first . . . [=(72)]

(240) \[vaiterei\quad ora-uugaa-pa-si-ei\]

\[\text{PRO.3.DL RR-kiss-CONT-3DL.M-PRES}_\alpha\]

The two are kissing each other.

### 6.2.2.7 Order 6 Suffixes: Tense/Mood

The order 6 suffixes consists of morphemes that mark tense and/or mood. These morphemes can be divided into two classes: those that are sensitive to verb stem classification and those that are sensitive to the gender of the subject. These two formally distinguishable classes correspond to a basic distinction between two categories of mood: realis and irrealis. The distinction between these two categories is characterized by Mithun (1999:173) in the following terms: “The realis portrays situations as actualized, as having occurred or actually occurring, knowable through direct perception. The irrealis portrays situations as purely within the realm of thought, knowable only through imagination.”

[SAY MORE ABOUT TENSE VERSUS ASPECT/MOOD]
6.2 Verbal Morphology

Tense/mood marking is obligatory for independent verbs, with two exceptions. First, absence of marking is interpreted as present tense—i.e., the present tense can be null-marked (see §6.2.2.7). Second, no marking of tense, aspect, or mood is found on imperatives, as illustrated in (241) and (242).

(241) Visiaevi uuko-a-va urio-u ra ukaio-ra
Visiaevi water-SG.N=ABL come-2SGα and drink-1SGα
Visiaevi, come with some water and I’ll drink.

(242) varao vori-ri kotokoto-ara
DEM.N.PL buy-2SGβ cargo.RDP-PL.N
Buy these supplies.

Realis  Within the realis mood, Rotokas has a system of metrical tense (Comrie, 1985) which distinguishes between the present tense and four categories of past tense: immediate, near, distant, and remote. (Metrical tense systems are fairly rare cross-linguistically. They are found among the Papuan languages of mainland Papua New Guinea (??) but not among the East Papuan language, with the one notable exception of Yéfi-Dnye (Dunn et al., 2002.).) This is summarized in Table 6.3.

<table>
<thead>
<tr>
<th>Tense</th>
<th>α</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>-ei</td>
<td>-voi</td>
</tr>
<tr>
<td>Past</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immediate</td>
<td>-e</td>
<td>-vo</td>
</tr>
<tr>
<td>Near</td>
<td>-era</td>
<td>-vora</td>
</tr>
<tr>
<td>Distant</td>
<td>-erao</td>
<td>-vorao</td>
</tr>
<tr>
<td>Remote</td>
<td>-epa</td>
<td>-va</td>
</tr>
</tbody>
</table>

Table 6.3 Rotokas Tense Categories

Additional segmentations of these form, where the tenses are analyzed as a combination of suffixes, is possible. An alternative segmentation is shown in Table 6.4.


### Table 6.4 Segmentations of Realis Suffixes

<table>
<thead>
<tr>
<th>Tense</th>
<th>Surface Form</th>
<th>Underlying Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>-ei</td>
<td>-e -i</td>
</tr>
<tr>
<td></td>
<td>-voi</td>
<td>-vo -i</td>
</tr>
<tr>
<td>Immediate</td>
<td>-e</td>
<td>-e</td>
</tr>
<tr>
<td></td>
<td>-vo</td>
<td>-vo</td>
</tr>
<tr>
<td>Near</td>
<td>-era</td>
<td>-e -ra</td>
</tr>
<tr>
<td></td>
<td>-vora</td>
<td>-vo -ra</td>
</tr>
<tr>
<td>Distant</td>
<td>-erao</td>
<td>-e -ra -o</td>
</tr>
<tr>
<td></td>
<td>-vorao</td>
<td>-vo -ra -o</td>
</tr>
<tr>
<td>Remote</td>
<td>-epa</td>
<td>-e -pa</td>
</tr>
<tr>
<td></td>
<td>-va</td>
<td>???</td>
</tr>
</tbody>
</table>

This analysis isolates a morpheme \(-vo\) that is governed by verb stem classification; it occurs with \(\beta\) (but not \(\alpha\)) verb stems. However, this would predict that the form of the immediate past would be \(-voe\), which is not the case, and that the remote past tense can be analyzed as the combination of \(-vo\) with another morpheme, which is doubtful. Since these two predictions are not borne out, the analysis will not be adopted here and a more superficial analysis positing suffixes sensitive to a combination of verb classification and tense will be preferred.

**Present** The marker of the present tense takes one of two forms: \(-ei\) and \(-voi\). The suffix \(-ei\) occurs with \(\alpha\) verbs and the suffix \(-voi\) occurs with \(\beta\) verbs. This is illustrated with the ambitransitive verb stem \(ori\) ‘cook’, where where the form \(-ei\) occurs with \(\alpha\) agreement, as in (243), and the form \(-voi\) occurs with \(\beta\) agreement, as in (244).

(243) **Rave, vii ori-pa-u-ei oira-ra=pa ovusia vii-pa**

Rave, PPRO.2.SG cook-CONT-2SG\(\alpha\)-PRES\(\alpha\) man=\(\\)BEN while PPRO.2.SG=\(\\)BEN kovo-i-ve

work-3PL\(\beta\)-SUB

Rave, you cook for the men while they work for you.

(244) **Ireviri korato siare-aro ori-re-voi**

Ireviri possum innard-POSS cook-3SG.M\(\beta\)-PRES\(\beta\)

Ireviri is cooking the possum’s innards.

When verb stems lack TAM marking, they are interpreted as present tense, as illustrated for the \(\alpha\) stem \(era\) ‘sing’ in (245) and for the \(\beta\) stem \(kipe\) ‘cut’ in (246).
6.2 Verbal Morphology

Morphology

(245) koova-va=ia viokeke-vira era-pa-ro-∅ Kare
sing-SG.F=ABL whistle-ADV sing-CONT-3SG.Mα-PRESα Kare
Kare is singing a song whistling.

(246) Pita isisio kou kipe-re-∅ uvare kepa ruvara=ia tou-pa-i-voi
Pita grass CLASS cut-3SG.Mβ-PRESβ because house near=LOC be-CONT-3PLβ-PRESβ
Peter is cutting the grass because it is close to the house.

Immediate Past The immediate past is used to describe events that took place either on
the same day as the present or one day prior to it. The marker of the immediate past can take
one of two forms: -e or -vo. The form -e occurs with α stems, as in (247), while the form -vo
occurs with β stems, as in (248).

(247) ora-upo-pa-a-e oa iava eera=ia evara
RR-strike-CONT-3PLα-IPα hence DEM.MED.SG.M=ABL DEM.MED.PL.N
tou-pa-i tapuku-ara
be-CONT-3PLβ contusion-PL.N
They fought and that’s why there are contusions on him.

(248) uva apeisi raga-vira oira upo-ri-vo
so how only-ADV PPRO.3.SG.F strike-2SGβ-IPβ
And just how did you kill him? [Firchow1974Sect2Text4:9]

Near/Distant Past The distant and near past are used to describe events that took place at
least one day prior to the present. The marker of the distant past tense takes one of two forms:
-vora or -era. The form -era occurs with α stems, as in (249), and the form -vora occurs with β
stems, as in (250).

(249) o-voki-vu=ia ava-ra eisi=re Ibu ovusia ora-upo-pa-a-era
SPEC-day-ALT=ABL go-1SGα LOC=ALL Ibu while RR-hit-CONT-3PLα-NPα
One day I went to Ibu while they fought.

(250) Vererire raroe-vira tou-pa-e-veira uvare vatua-to upo-i-vora uva
Vererire widowed-ADV be-CONT-3SG.Fβ-HAB because spouse-SG.M hit-3PLβ-NPβ and
kopii-ro-era oira arova
die-3SG.Mα-DPα PPRO.3.G.M POST
Vererire is a widow because they killed her husband and he died leaving her behind.
The marker of the distant past takes one of two forms: -vorao or -erao. The form -erao occurs with α stems, as in (251) and the form -vorao with β stems, as in (252).

(251) aako riako ora-vatevate-a-erao aue=ia aio
mother FP.F RR-give.RDP-3PLα-NPα CONN=ABL food
The women gave each other food.

(252) Rarasori oirara vate-re-vorao vuku-ara ra vara vuravura-i-ve
vara voreri-oro
PPRO.3.PL repeat-DEP.SIM
Robinson gave people books so that they would look at them again and again.

Remote Past The remote past is used to describe events that took place in the historical or mythological past, which is usually described using the phrase voari tuariri ‘long ago’, as illustrated in (253) and (254).

(253) poupou kovekove-o-i uvare Toki
dust.RDPFALL.RDP-3SG.Fα-PRESα because Bagana erupt-RES-3SG.Fα-RPα
pokoro-viro-a-pa voari tuariri.
back long.ago
Dust is falling because Mt. Bagana erupted a long time ago.

(254) tataga evao-va iava oa toe-i-va voari tuariri.
log tree-SG.F POST RPRO.3.SG.N cut-3PLβ-RPβ back long.ago
They cut the log from the tree a long time ago.

The marker of the remote past takes one of two forms: -epa or -va. The form -epa occurs with α stems, as in (255), and the form -va occurs with β stems, as in (256).

(255) voea rutu oira-ra agasi-a-epa tugoro-pa-toa=ia uraura-to
PPRO.3.PL very man-HUM.PL be.full-3PLα-RPα holy-DERIV-SG.M=ABL spirit-SG.M
All of the men filled up with the holy spirit.

(256) kakate agasi-pie-re-va aue=ia gau
bamboo be.full-CAUS-3.SG.M-RP CONN=ABL tear
He filled the bamboo tube with tears.
6.2 Verbal Morphology

**Irrealis** Within the category of irrealis, Rotokas possesses a number of subcategories: the subjunctive, the future, and the habitual. Each has two markers: a p-initial form which occurs on verbs with neuter subjects and a v-initial form that occurs with non-neuter subjects. The various markers for the irrealis categories are listed in Table 6.5.

<table>
<thead>
<tr>
<th>Mood</th>
<th>Neuter</th>
<th>Non-Neuter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjunctive</td>
<td>-pe</td>
<td>-ve</td>
</tr>
<tr>
<td>Future</td>
<td>Near</td>
<td>-pere</td>
</tr>
<tr>
<td></td>
<td>Distant</td>
<td>-perea</td>
</tr>
<tr>
<td>Habitual</td>
<td>-peira</td>
<td>-veira</td>
</tr>
</tbody>
</table>

**Table 6.5** Rotokas Irrealis Mood Categories

It should be clear from Table 6.5 that additional segmentation of the irrealis suffixes is possible, as shown in Table 6.6.

<table>
<thead>
<tr>
<th>Tense</th>
<th>Surface Form</th>
<th>Underlying Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrealis</td>
<td>-pe</td>
<td>-pe</td>
</tr>
<tr>
<td></td>
<td>-ve</td>
<td>-ve</td>
</tr>
<tr>
<td>Near Future</td>
<td>-pere</td>
<td>-pe -re</td>
</tr>
<tr>
<td></td>
<td>-vere</td>
<td>-ve -re</td>
</tr>
<tr>
<td>Distant Future</td>
<td>-perea</td>
<td>-pe -re -a</td>
</tr>
<tr>
<td></td>
<td>-verea</td>
<td>-ve -re -a</td>
</tr>
<tr>
<td>Habitual</td>
<td>-peira</td>
<td>-pe -ira</td>
</tr>
<tr>
<td></td>
<td>-veira</td>
<td>-ve -ira</td>
</tr>
</tbody>
</table>

**Table 6.6** Segmentation of Irrealis Suffixes

The segmentation found in Table 6.6 suggests that there is a basic irrealis category marked by the suffixes -pe and -ve, which is subject to additional specification. This is particularly clear in the case of the habitual, which is marked only by -pe or -ve when habituality is indicated lexically with oisioa ‘always’, as in (257) or (258), but by -peira or -veira otherwise.

(257) **Asitararia oea** oisioa Papua Niugini toki-pa-i-ve
Australia PPRO.3.PL.M always Papua Niugini care.for-CONT-3PL.β-SUB
Australia always takes care of Papua New Guinea.

---

9According to Firchow (1987:15), “the p-initial form occurs in verbs which have an inanimate subject, and the v-initial form in verbs with animate subjects”. The relevant variable is, however, gender, and not animacy, although the two largely coincide—see §5.2.1.1.
Subjunctive  The subjunctive mode is marked by a suffix that takes one of two forms: -pe occurs with neuter subjects, as in (259), whereas -ve occurs with all others, as in (260). Note that in both cases the grammatical subject is notionally inanimate.

The two forms of the suffix occur with both $\alpha$ and $\beta$ verbs, as demonstrated for -ve in (261) and (262).

(261) voari tuariri uva oisioa popote-pa-irara torio-ara=ia  
  back long_ago and always white-DERIV-HUM.PL sword-PL.N=ABL  
  ora-upo-pa-a-ve  
  RR-hit-CONT-3PL$\alpha$-SUB  
  Long ago white people would fight with swords.

(262) uriri-pa-ra-i teapi ragai upo-i-ve  
  be.afraid-CONT-1SG$\alpha$-PRES$\alpha$ lest PPRO.1.SG hit-3PL$\beta$-SUB  
  I am afraid that they might hit me.

The subjunctive marker occurs in a wide variety of contexts. A few of the contexts in which it typically occurs are provided below: negation (263), conditionals (264), interrogatives (265), apprehensionals (266), indirect commands (267), and situations of possibility (268) (Lichtenberk, 1985; Bugenhagen, 1993; Palmer, 2001).
Negation

(263) \textit{regorevira evao-va } \textit{iipa-erao uvare viapau va viou-pa-re-ve}  
\textit{bent-ADV tree-SG.F go\textsubscript{up}-NP\textsubscript{a} because NEG PRO.3.SG.N clean-CONT-3SG.M\beta-SUB}  
\textit{Ririvasi}  
\textit{Ririvasi}  
The tree grew crooked because Ririvasi didn’t prune it.

Conditional

(264) \textit{Pita Ruke tavi-pa-re-va raerae-vira reoreo-u vosia aite}  
\textit{Pita Ruke tell-CONT-3SG.M\beta-SUB try-ADV talk.RDP-2SG\textsubscript{a} if father}  
\textit{uvui-pa-ro ra vigei uvu-re-ve ra vigei}  
\textit{be\_able-CONT-3SG.M\alpha and PRO.1.DL hear-3SG.M\beta-SUB and PRO.1.DL}  
\textit{ato-re-ve ikau-vira}  
\textit{answer-3SG.M\beta-SUB hurry-ADV}  
Peter told Ruke, you try talking, if dad can hear us, he can reply quickly.

Interrogative

(265) \textit{irou-vai vao kae-ve oapa visii vasie iava}  
\textit{who-INDEF DEM.PROX.SG.N carry-SUB bag PPRO.2.PL CLASS POST}  
Who among you can carry my bag?

Apprehensional

(266) \textit{visivisi-vira reoreo-pa-ro-e Tavi oisio teapi rera}  
\textit{quite-ADV speak.RDP-CONT-3SG.M\alpha-1P\alpha Tavi COMP lest PPRO.3.SG.M}  
\textit{uvu-i-ve kaakau kare}  
\textit{hear-3PL\beta-SUB dog FP}  
Tavi is speaking quietly lest the dogs hear him.

Indirect Command

(267) \textit{Riko tavi-re-vo Pita oiso ra kepa pura-re-ve rera=pa}  
\textit{Riko tell-3SG.M\beta-RP\beta Peter COMP and house make-3SG.M\beta-SUB RPRO.3.SG.M= BEN}  
Peter told Riko to build a house for him.
They cut all of the trees and a clearing was made so that it was possible that way to look down and see the beach.

**Future**  Firchow (1987:20) describes a number of suffixes as markers of the future tense. However, unlike the other tense-marking suffixes (e.g., the present tense), these suffixes are sensitive to the gender of the subject, and not to the distinction between $\alpha$ and $\beta$ inflection. Given this formal distinction between the past and present tense suffixes on the one hand and the future tense suffixes on the other, it can be argued that the two classes of suffixes should be assigned to different ontological categories.

Conflation of future tense and potential/irrealis mood is fairly common cross-linguistically. As Chung and Timberlake (1985:243) observe:

The future is thus a category where tense and mood merge. In practice many languages do not distinguish morphologically between future tense and potential (irrealis) mood. Where a difference is made, the future tense is used for events that are presumed to be certain to occur, and the irrealis mood for events that are potentially possible but not presumed to be certain.

**Near Future**  The marker of the near future can take one of two forms: -*pere* or -*vere*. The form -*vere* occurs both with $\alpha$ verb stems, as in (269), and with $\beta$ verb stems, as in (270).

(269)  
*vavoisio ava-pa-i-ei aue=re oisio ra voa-va*  
there go-CONT-1PL.EXCL-PRES$\alpha$ CONN=ALL COMP and here-ABL  
kare-io-vere vokiaro  
return-1PL.EXCL-NF night  
We’re going there in order that we come back at night.

(270)  
oire vii va-aro vuku-a kare-pie-a-vere  
okay PPRO.2.SG PPRO.3.SG.N-POSS book-SG.N return-CAUS-3PL$\alpha$-NF  
Okay, I’ll give you your book back.
6.2 Verbal Morphology

The form -pere occurs with both $\alpha$ verb stems, as in (271), as well as $\beta$ verb stems, as in (272). In each case the subject of the verb with -pere is neuter.

(271) `vasirako-vira rutu rakorako-a tuke-re`  
`opuuruvu iava oiso teapi`  
tight-ADV very rope-SG.N tighten-3SG.M$_\beta$ canoe POST COMP LEST  
gavogavoto-pere  
loose.RDP-NF  
He tightened the rope on the canoe so that it will not loosen up.

(272) `rigato-a-vai veri tou-pere`  
write-SG.N-INDEF worthless be-NF  
The writings will not be worth anything in the future. [Firchow (1984)]

The realization of the near future is irregular for first person dual subjects (Firchow, 1987:15), as illustrated in (273).

(273) `toaera-vira kovo-pa-veare`  
work_for_money-ADV work-CONT-1DL+DF  
We two will work for money.

**Distant Future** The marker of the distant future takes one of two forms: -perea and -verea. The form -verea occurs both with $\alpha$ verb stems, as in (274), and with $\beta$ verb stems, as in (275).

(274) `oiraopie-pa-irara eisi-re ava-a-verea vuvui ua`  
believe-CONT-HUM.PL LOC=ALL go-3PL$_\alpha$-DF heaven CLASS  
The believers are going to heaven.

(275) `rovirovirie-a pura-re-verea pau-to utu-pa voki=ia vigei`  
judge-SG.N make-3SG.M$_\beta$-DF God-SG.M follow-DERIV day=ABL PPRO.1.INCL  
`vo-pitupituro-aro=ia vosia viapau vearo-vira tou-pa-pe vo-rasio=ia`  
SPEC-custom-POSS=ABL when NEG good-ADV be-CONT-SUB SPEC-ground=ABL  
God will measure us according to our habits when we aren’t good on earth.

The form of the distant future is irregular with first person dual subjects, as illustrated in (276).

(276) `reoreo-a pura-si-va oisio voo ora-aivaropie-vearea`  
talk.RDP-N make-3DL.M-RP$_\beta$ like here RR-meet-IDL+DF  
The two of them arranged things, (saying) we will meet here.
Habitual  The habitual mode is marked by a suffix that takes one of two forms, -peira or -veira: the form -peira occurs with neuter subjects and the form -veira occurs with non-neuter subjects, as illustrated in (277) and (278).

(277)  **asiga  iro  oa  virivoko-pa-peira**  
  type_of_vine  vine  RPRO.3.SG.N  be_milky-CONT-HAB  
The asiga vine is usually milky.

(278)  **aapova  iria  vokiaro  papa-pa-e-veira**  
  flying_fox  PPRO.3.SG.F  night  fly-CONT-3SG.Fβ-HAB  
The flying fox flies at night.

The irrelevance of verb stem classification is evident from the fact that -peira and -veira occur with both α and β stems, as illustrated for -peira in (279) and (280) and for -veira in (281) and (282).

-**peira**

(279)  **uuko-ara  ugoro-pa-peira  vavoisio  tutue=ia  vosia  siisiu**  
  water-  cold-CONT-HAB  there  Balbi=ABL  when  wash  
The water is always cold there on Mt. Balbi when you wash.

(280)  **oire  oisio  raga-vira  iava  tou-pa-peira  vo-rasi-toa=ia**  
  okay  COMP  only-ADV  POST  be-CONT-HAB  SPEC-ground-SG.M=ABL  
Okay, just like that they would always be on the ground. [Firchow and Akoitai (1974:3,9:113)]

-**veira**

(281)  **virikoi-to  vearo-pa-ro-veira  take  tatu-pa-sia**  
  hatchet-SG.M  good-CONT-3SG.Mα-HAB  bamboo  chop-CONT-DEP.SEQ  
A hatchet is always good for chopping bamboo.

(282)  **Pioto  ira  aruo-va  pura-pa-re-veira  aveke-ara=ia**  
  P.  RPRO.3.SG.F  mark-SG.F  make-CONT-3SG.Mβ-HAB  stone-PL.N=ABL  
Pioto (a river) always makes a mark on the stones.

The habitual mood is insensitive to tense, and is used to describe events regardless of tense, as illustrated in (283), where it describes an event in the past tense, or in (284), where it is used to describe a situation in the present tense.
6.3 Morphophonemics

There are a number of systematic morphophonemic alternations in Rotokas inflectional morphology. They can be divided into three groups on the basis of their effect on the form of verbal conjugations.

6.3.1 Identical Vowel Sequences

Since Rotokas syllables are open (i.e., vowel-final), the suffixation of vowel-initial suffixes (e.g., the neuter single -a and the neuter plural -ara) gives rise to vowel sequences. When the final vowel of a stem and the initial vowel of a suffix are identical (i.e., homorganic), the result is a long vowel. This is not uncommon, given that slightly over half (29/51, 57%) of all suffixes are vowel-initial. It is illustrated in some of the following words:

(286) a. veera
    line_up
    line up (something)

b. veera-a
    line_up-SG.N
    line
6.3.2 Insertion and Deletion Rules

The relationship between underlying and surface forms in verbal morphology is largely one-to-one, with the exception of a few fairly straightforward insert and deletion rules.

6.3.2.1 o-deletion

Another morphophonemic rule deletes o from the end of a suffix when it precedes another suffix beginning with e (Firchow, 1987:15–16). This is not simply a phonological rule, since the sequence oe across a morpheme boundary is not generally impossible, judging from perfectly grammatical forms such as those in (287).

(287) a. ava-ro-epa  
    go-3SG.M{α}-RP{α}  
    He went.

b. aio-pa-o-e  
    eat-CONT-3SG.F{α}-IP{α}  
    She ate.

The morphophonemic rule is stated formally in (288) and its effect can be seen in the contrast between (289) and (290).
6.3 Morphophonemics

(288) \[ -io \\
-vio \] \[ -i \\
-vi \] / \{ \\
ei \\
era \\
erao \\
epa \} \\

(289) \[ \text{iro-aravai} \quad \text{ou-ta} \quad \text{ra ava-vio} \quad \text{erako ogata-sia} \]
rope-PL.N-INDEF get-2PL and go-1PL.INCL firewood carry_in_worksack-DEP.SEQ
Get some ropes and we’ll carry firewood in a worksack.

(290) \[ \text{evao toe-sia} \quad \text{ava-pa-vi-ei} \quad \text{kepa pura-sia} \]
tree cut-DEP.SEQ go-CONT-1PL.INCL-PRES, house make-DEP.SEQ
Let’s go cut a tree to make a house.

6.3.2.2 e-deletion

Firchow (1987:15-16) states two rules that involve the deletion of e from the beginning of a suffix when it follows a suffix ending with o or a. These rules are specific to particular morphemes and are not general phonological rules, since sequences of oe and ae across morpheme boundaries are perfectly grammatical, as already shown for oe in (287) and as shown for ae in (291).

(291) a. \[ \text{ava-a-e} \]
go-3PL,n-IP,\text{a}
They went.

b. \[ \text{kovekove-pa-epa} \]
fall.RDP-CONT-RP,\text{a}
It kept falling.

These two morphophonemic rules are given in (292) and (293) (Firchow, 1987:15-16).

(292) \[ -era \\
erao \\
epa \] \[ -ra \\
rao \\
pa \] / \{ \\
o \\
viro \} \\

(293) \[ -ei \Rightarrow -i \] / \{ \\
a \\
o \} \\

These rules are illustrated below:
(294) ava-pa-ra-[ei]i  Buka iare
       go-CONT-1SG<alpha>-PRES<alpha> Buka POST
       I am going to Buka

(295) poupou  kovekove-o-i uvare  Toki
       dust.RDPFALL.RDP-3SG.F<alpha>-PRES<alpha> because Bagana erupt-RES-3SG.F<alpha>-RP<alpha>
pokoro-viro-o-pa voari  tuariri.
       back long ago
       Dust is falling because Mt. Bagana erupted a long time ago. [= (253)]

6.3.2.3  *i*-insertion

When two suffixes are concatenated and the first ends with *e* and the second begins with *e*, the epenthesis of *i* occurs. This rule is formally stated in (296).

(296) \(\ldots e-e \ldots \Rightarrow eie\)

The effect of (296) on the form of verbal conjugation is illustrated in (297) and (298):

(297) tavauru-rire i esi-re  ava-ere-i-e  Arawa
       teenager-3DL.F LOC=ALL go-3DL.F-EPEN-IP<alpha> Arawa
       The two teenage girls went to Arawa.

(298) uva ora-vasie-ere-i-epa  oira=ia  era-pa-oro  era-va
       and RR-depart-3DL.F-EPEN-RP<alpha> PPRO.3.SG.F=ABL sing-CONT-DEP.SIM sing-SG.F
       So the two women departed singing the song. [Firchow (1984)]

---

The rule in (296) is essentially the result of collapsing the following two rules provided in Firchow (1987:15-16):

1. \[\begin{align*}
   -era \\
   -eroa \\
   -epa \\
\end{align*}\] \(\Rightarrow\) \[\begin{align*}
   -iera \\
   -ieroa \\
   -iepa \\
\end{align*}\] \(\{/\begin{align*}
   -ere \\
   -ve \\
\end{align*}\} -

2. \(-ei \Rightarrow iei / e\)
Chapter 7

Syntax

This chapter covers a number of basic facts concerning the syntax of Rotokas which are not covered in the more detailed examination of argument structure provided in the second part of this thesis. The syntax of noun phrases is examined in greater detail in §7.1. The remaining sections cover clause-level syntax. The constituent order of declarative and interrogative sentences is discussed in §7.2.1 and §7.2.4, respectively. Negation is described in §7.2.3. Finally, clause combining is covered in §7.3: §7.3.2 concentrates on verb phrases while §7.3.3 examines coordination in general.

7.1 Noun Phrases

A noun phrase (NP) is a constituent headed by a nominal which behaves as a unit. In the simplest case, it consists of a bare noun, but the head noun can be modified by a number of different elements, giving rise to much more complex structures. A summary of the elements found in Rotokas NPs is provided in (299).

(299)

Demonstrative-Noun
(300) sisiarapa-toa irao roo koora-to
greasy-SG.M true DEM.3.SG.M possum-SG.M
Possum is very greasy.

Adjective-Noun

(301) vego-a toe-pa-i oira-ra aire-pa kovo-vai=re
jungle-SG.N cut-CONT-3PL β man-HUM.PL new-DERIV garden-INDEF=ALL
The men cut the bush for a new garden.

Possessor-Noun

(302) vii vaisi-aro kiro-ri
PRO.2.SG name-POSS write-2SG β
Write your name.

Noun-Classifier

(303) atari pitu-ro ata-pa-i-voi avaka-va=ia ovusia
fish CLASS-PL.CL swim-CONT-3β-PRES β salt-SG.F=LOC while
vo-pitu-ro tue-pa-io-vo
SPEC-CLASS-PL.CL wait-CONT-1PL.EXCL-IP β
The schools of fish swam in the ocean while we waited for them.

Noun-Possessive Pronoun

(304) upiriko kovo oave eva vegei avukarei
sweet_potato garden PPRO.1.DL DEM.3.SG.N PRO.1.DL married_couple
That’s the sweet potato garden of us two married people.

Noun-Relative Clause

(305) tugara-to riro kuukuuvu-to ira oira-ra keakea-pa-re-veira
Satan is a big liar who deceives people.
7.1.1 Possession

There are three different strategies for marking possession in a noun phrase in Rotokas: 1) the use of a post-nominal possessive pronoun; 2) the use of a possessive suffix -aro on the possessed noun; 3) and the use of a possessive suffix -aro on a dummy pronoun, which agrees in person, number, and gender with the possessed noun. The possessor precedes the possessor when possession marking occurs on the possessed noun.

7.1.1.1 Possessive Pronoun

The first strategy for marking possession is the use of a possessive pronoun that agrees with the possessor in terms of person, number, and gender (see Table 5.12 for the full paradigm). The possessive pronoun follows the possessed noun, as illustrated in (306) and (307).

(306) oire rera ragi-i-va voeao ovii-rara oaa osa
    okay PRO.3.SG.M whip-3PLβ-RPβ PRO.3.PL.M offspring-HUM.PL PPRO.1.SG as
    rera=ia pitu-pa--va
    PRO.3.SG.M=LOC hold-CONT-1SGβ-RPβ
    My children, they whipped him as I held onto him.

(307) kepa oaine eva oa vura-pa-ri
    house PPRO.3.PL.M DEM.3.SG.N RPRO.3.SG.N look_at-CONT-2SGβ
    That’s everybody’s house that you’re looking at.

Firchow (1987:61) notes that the possessor can also be explicitly indicated by a personal pronoun, in which case it occurs in a prenominal position, as in (308), but I have been unable to find instances of this type of construction in the materials available to me.

(308) ragai vaisi-a oaa
    PRO.1.SG name-SG.N POSS.1.SG
    my name [Firchow (1987:61)]

This form of possession marking is restricted to animate possessors due to the lack of neuter possessive forms in the possessive pronoun paradigm (see §5.2.3.3).

7.1.1.2 Possession Marking on Possessed Noun

The most common form of possession marking takes the form of the possessive suffix -aro on the possessed noun, preceded by the possessor. This form of possession can be described as
head-marking, to the extent that the possessed noun functions as the head of the noun phrase. The possession marking in this construction is invariant in form, and does not agree with the possessor in terms of person, number, or gender, as illustrated in (309) and (310).

(309) **Luk vo-kepa-aro pako-pi uvare eru-erao tuuta-ara**
Luk SPEC-house-POSS slump-SUB because rot-NP$_\alpha$ pole-PL.N
Luke’s house is slumped over because the poles are rotten.

(310) **urio-pa-ta-i ragai vo-kepa-aro=ia tii tapi-sia**
come-CONT-2PL-PRES$_\alpha$ PRO.1.SG SPEC-house-POSS=LOC tea drink-DEP.SEQ
Come drink tea at my house.

This form of possession marking is the most common and is very general, including various semantic classes of possession, ???.

**Ownership**

(311) **Raratuiri vo-kepa-aro goru-vira tou-pa-i-voi**
Raratuiri SPEC-house-POSS strong-ADV be-CONT-3PL$_\beta$-PRES$_\beta$
Raratuiri’s house is strong.

**Kinship**

(312) **Rausira avuka-to Siuparai aite-aro**
Rausira old-SG.M Siuparai father-POSS
Rausira is old; he is Siuparai’s father.

Possession is potentially recursive, leading to the left-branching “stacking” of possessors, as illustrated by (313) and (314).

(313) **aikara ava-ra eisi-re ragai vate-va-aro vo-kepa-aro**
EXCL go-1SG$_\alpha$ LOC=ALL PRO.1.SG friend-SG.F-POSS SPEC-house-POSS
I will go to my friend’s house. [Cricket and Grasshopper]

(314) **Pita aite-aro vo-kepa-aro-i**
Peter father-POSS SPEC-house-POSS-
Peter’s father’s house [Firchow (1987:???)].
7.1.1.3 Possession Marking on Dummy Pronoun

Another strategy for marking possession resembles the one previously described in §7.1.1.2, except that possession is not marked on the possessed noun itself, but rather on a dummy pronoun, which agrees with the possessed noun in terms of person, number, and gender. This is illustrated for a masculine, feminine, and singular possessed noun in (315) through (317), respectively.

(315) *Pita rera-aro* *kuvu-pa-to* *pogopogoro-to*

Peter PRO.3.SG-M.POSS cover-DERIV-SG.M oversized.RDP-SG.M

Peter’s shirt is oversized.

(316) *irou ragai oira-aro* *torara ou-vo*

who PRO.1.SG PRO.3.SG-M.POSS axe get-IP\(\beta\)

Who took my axe?

(317) *Samuel, ragai va-aro* *vori-a tavario-ri*

Samuel, PRO.1.SG PPRO.3.SG.M-POSS money-SG.N exchange-2SG\(\beta\)

Samuel, exchange my money.

In (315) through (317), the possessor immediately precedes the dummy pronoun, which in turns immediately precedes the possessed noun. The possessor and dummy pronoun form a syntactic unit, as can be seen in cases where the entire phrase is discontinuous, as in (318) and (319), where the possessor functions as patient/theme and the possessor and dummy pronoun appear on the right periphery.

(318) *peeka eera oira-to* *ira kuvu-pa-to* *kaviru-re-vo*

bad DEM.3.SG.M man-SG.M RPRO.3.SG.M cover-DERIV-SG.M steal-3SG.M\(\beta\)-IP\(\beta\)

*Pita rera-aro*

Peter PPRO.3.SG.M-POSS

The man who stole Peter’s shirt was bald.

(319) *auo sikure=va urio-u ragai oira-aro*

hey grass_skirt=COM come-2SG\(\alpha\) PPRO.1.SG PPPO.3.SG.M-POSS

Hey, come here with my grass skirt.

Discontinuous possessive noun phrases of the type found in (318) and (319) also occur in other grammatical roles, as shown by (320) and (321), where a possessed noun functions as an oblique argument and oblique marking occurs on the dummy pronoun rather than the possessed noun itself.
7.1 Noun Phrases Syntax

(320) karisi-to vigei vara-aro=ia vuri-ara kopii-ro-epa
    Christ-SG.M PRO.1.PL.INCL PRO.3.PL.N-POSS=LOC bad-PL.N die-3SG.M,α-RP,α
    Christ died for our sins.

(321) Rarasori riro vaisi ou-re-voi rera va-aro=ia vearo
    Rarasori big name get-3SG.M,β-PRES,β PRO.3.SG.M PRO.3.SG.N-POSS=LOC good
    kovo
    work
    Robinson has a big name for his good work.

It may seem from examples such as (320) and (321) that this possessive construction is
required for possessed oblique arguments, but this is not the case, judging from sentences such
as (322) and (323), where a possessed noun plays the role of an oblique argument, and no
dummy pronoun is involved.

(322) kapu-a eva vii kokoto-aro=ia tou-pa-i
    sore-SG.N DEM.MED.SG.N PRO.2.SG leg-POSS=LOC be-CONT-3PL,β
    That sore is on your leg.

(323) ee rera vo-reo-aro=pa ora-toatoa-pa-u
    EXCL PRO.3.SG.M SPEC-word-POSS=BEN RR-concede-CONT-2SG,α
    Are you giving in to his talk? [Firchow (1984)]

7.1.2 Quantification

This section covers the various means of quantifying noun phrases in Rotokas. The use of rutu
‘very’ as a quantifier is described in §7.1.2.1 and Rotokas numerals of Rotokas are described in
§7.1.2.2.

7.1.2.1 Quantifiers

The intensifier rutu ‘very, truly’ can be used in a noun phrase as a universal quantifier that has
scope over the immediately preceding noun phrase. It occurs with both nouns, as in (324), and
pronouns, as in (325).

(324) kokootu ruipa-pa-a-veira oira-ra rutu varu-a
    chicken want-CONT-3PL,α-HAB man-HUM.PL very because good-SG.N very-SG.N
    meat-SG.N
    Everyone (literally: all people) wants chicken because it is good meat.

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When a noun is quantified using *rutu*, case marking appears as an enclitic on the quantifier (rather than on the head noun itself), as illustrated in in (327) and (328). In essence, the case marker marks the right boundary of the noun phrase.

(327) *voki-ara rutu=ia kovo-pa-sia ava-pa-ere*

*day-PL.N very=LOC work-CONT-DEP.SEQ go-CONT-3DL.F*

Every day the two of them went to work. [Caleb, “Matevu”]

(328) *uva vara rutu=va vore-ro-epa*

*so PRO.3.PL.N very=COM go_back-3SG.Mα-RPα*

He returned with everything. [Firchow and Akoitai (1974:1,10:35)]

7.1.2.2 Numerals

Although the use of Tok Pisin for counting is increasingly widespread among Rotokas speakers, the language does have an indigenous counting system, which is quinary (based on multiples of five), as can be seen in Table 7.1.
7.1 Noun Phrases

<table>
<thead>
<tr>
<th>Number</th>
<th>Rotokas Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>one</td>
<td>katai</td>
</tr>
<tr>
<td>two</td>
<td>erao</td>
</tr>
<tr>
<td>three</td>
<td>peva</td>
</tr>
<tr>
<td>four</td>
<td>resiura</td>
</tr>
<tr>
<td>five</td>
<td>vavae</td>
</tr>
<tr>
<td>six</td>
<td>katai vatara</td>
</tr>
<tr>
<td>seven</td>
<td>erao vatara</td>
</tr>
<tr>
<td>eight</td>
<td>peva vatara</td>
</tr>
<tr>
<td>nine</td>
<td>resiura vatara</td>
</tr>
<tr>
<td>ten</td>
<td>katai tau</td>
</tr>
<tr>
<td>one-hundred</td>
<td>vovoto</td>
</tr>
<tr>
<td>one-thousand</td>
<td>tuku</td>
</tr>
<tr>
<td>one-million</td>
<td>ipa</td>
</tr>
</tbody>
</table>

Table 7.1 Rotokas Numerals

Note that the term *vavae* ‘five’ is based on the body part term *vavae* ‘hand’, illustrated in (329) and (330).

(329)  
\[\text{eake-a eva vii vavae-ar} \text{=} ia\]
what-SG.N PRO.MED.3.SG.N PRO.2.SG hand-POSS=LOC
What’s that in your hands?

(330)  
\[\text{vavae-ar} \text{a itoro-pie-i-vo kakae vure uvare voea tavi-e-vo}\]
hand-PL.N extend-CAUS-3PL.β-1P.β child FP because PRO.3.PL.M tell-3SG.F.β-1P.β
tisa-va
teacher-SG.F
The children raised their hands because the teacher told them to.

Although quite large numbers can be built up using the numerals in Table 7.1, as illustrated in (331), the use of Rotokas numerals is waning, particularly among the younger generation.

(331)  
\[\text{erao tuku resiura vatara vovoto vo-peva tau vavae}\]
two 1000 nine hundred SPEC-three ten five
two-thousand nine-hundred and thirty-five [Firchow (1987:46)]

Although use of Tok Pisin numerals is waning (particularly among the younger generation), Rotokas numerals are typically used for smaller numbers (ten or less), as illustrated in (332) and (333).
(332) ora-veera-i eapu kare katai raiva raga=ia voka-ororo
RR-line, up-PRESant FP one road only=LOC walk-DEPSIM
Ants line up and walk in a single line.

(333) vurei-a pura-sia vo-peva upo-i-vo koue kare ora aue kokotu kare
feast-SG.N make-DEPSEQ SPEC-three kill-3PLβ-IPβ pig FP and CONN chicken FP
voo=va atoi-a
here=ABL village-SG.N
In order to have a feast, they killed three pigs and also some chickens in the village.

Although Rotokas numerals continue to be used, their use is waning and counting is routinely done in Tok Pisin rather than Rotokas.

(334) xxx
xxx
xxx

7.1.3 Nominal Conjunction

Before discussing how nominal conjunction works in Rotokas, it is useful to establish some terminology. The marking of coordination differs widely across languages. As Haspelmath (19??) observes, some languages lack an explicit marker of conjunction (asynedetic), others possess some form of explicit marking of conjunction, either on one of the two elements being conjoined (monosyndetic) or both of them (bisyndetic). Rotokas is monosyndetic, as illustrated in (335) and (336).

(335) Rake ora Jon kaakau kare ou-sia ava-si-e
Rake and Jon dog FFP get-DEPSEQ go-3DL.M-RPα
Rake and John went to get the dogs.

(336) Revoi ora Siariviri tutupie siara rutu
Revoi and Siariviri close clan very
Revoi and Siariviri are members of the same clan.

The coordination of two nouns referring to humans typically involves the use of the particle vaio ‘animate dual’, as can be seen in (337) and (338).

(337) Visaevi vaio ora Mataila atara-pa-ere-i-ei urua=ia
Visaevi ANIM.DL and Mataila sleep-CONT-3DL.F-EPEN-PRESant bed=LOC
"Visaevi and Mataila are sleeping together in bed.”
In a cross-linguistic survey of coordination, Haspelmath (19??) observes that the explicit marking of coordination can appear either before the coordinand (prepositive) or after it (postpositive). In Rotokas, coordination marking is prepositive, as can be seen from coordinated noun phrases that are discontinuous, as in (339) and (340), where the second coordinand occurs after the verb with ora. Furthermore, (340) demonstrates that the animate dual particle vaio is associated with the first coordinand.

Some additional examples of what appears to be the same construction type as (339) are provided in (341) and (342).

This section covers various aspects of intraclausal (i.e., clause-internal) syntax, such as the basic ordering of constituents, the difference between declarative and interrogative word order, negation, and interrogatives.
7.2 Intraclausal Syntax

7.2.1 Constituent Order

Firchow (1973:x-xi) provides three templates for what he labels “basic sentences”, which are provided in (343) (where parentheses indicate optional elements—i.e., elements that can be elided when contextually retrievable).¹

(343) INTRANSITIVE (Time) (S) (Location) (Verb) (Adverb) Verb
TRANSITIVE (Time) (A) O Verb (Adverb) (Verb) (Location)
DITRANSITIVE (Time) (A) IO O Verb (Adverb) (Location)

The constituent order provided in (343) represent the typical ordering of elements but alternative orderings of these elements are permissible. For example, the time word (or phrase) occurs sentence-initially in (344), as predicted by (343), but not in (345), where it occurs after the intransitive subject.

(344) koke-va voki-ara rutu=ia kove-pa-o-i
rain-SG.F day-PL.N very=LOC fall-CONT-3SG.Fₐ-PRESₐ
It rains every day. [Firchow (1984)]

(345) aveke=ia ora-tuguru-ra-e vokiaro eisi raiva
stone=LOC RR-bump-1SGₐ-IPₐ night LOC road
I bumped into a rock at night on the road.

The distinction between arguments and adjuncts (?) goes a long way towards explaining the constituent ordering principles of Rotokas. Arguments are more restricted in their ordering whereas adjuncts are fairly free. For example, manner adverbs can in fact occur in any of the logically possible positions of an intransitive or transitive clause. Therefore, all of the intransitive sentences in (346) are grammatical, as are the transitive sentences in (347).

(346) a. oirato torireva gapuvira
    b. oirato gapuvira torireva
    c. gapu-vira oirato tori-re-va
        naked-ADV man run.away-3.SG.M-RP
        The man ran away naked.

¹Firchow (1973) uses the undifferentiated term 'Subject', which have been replaced with S and A in (343) for the sake of consistency with the terminology used to describe grammatical roles in §8.3.2.
7.2 Intraclausal Syntax

(347) a. oirato koie kavirurevo ikauvira

b. oirato koie ikauvira kavirurevo

c. oirato ikauvira koie kavirurevo

d. ikau-vira oirato koie kaviru-re-vo
   quick-ADV man pig steal-3SG.Mβ-IP β
   The man quickly stole the pig.

Core arguments, however, follow more strict principles. The transitive template is illustrated for a transitive verb in (336), where its core arguments, A and O are oirato ‘man’ and koie ‘pig’, respectively.

(348) oira-to koie upo-re-vo
   man-SG.M pig hit-3SG.Mβ-IP β
   The man hit the pig.

Although it is also possible for the subject to occur postverbally, as illustrated by (349), other logically possible orderings are grammatical.²

(349) koie upo-re-vo oira-to
   pig hit-3SG.Mβ-IP β man-SG.M
   The man hit the pig.

All other logically possible ordering are ungrammatical: VAO, as in (350a); VOA, as in (350b); OAV, as in (350c); and AVO, as in (350d).

(350) a. * uporevo oirato riakova

b. * uporevo riakova oirato

c. * riakova oirato uporevo

d. * oira-to upo-re-vo riako-va
   man-SG.M hit-3SG.Mβ-IP β woman-SG.F
   The man hit the woman.

²If A and O have the same features for person, number, and gender, a change in word order may result in a reversal of meaning rather than ungrammaticality.
The constituent order of objects is strict compared to that of subjects, with objects occurring in a fixed preverbal position, as illustrated in (352).

(351) oira-to vuri-va kaakau upo-pa-re-voi
man-SG.M bad-SG.F dog hit-CONT-3SG.Mβ-PRESβ
The man is hitting the bad dog.

Although the position of O must be filled, it is possible for it to be discontinuous. Compare (352) with (354), where the NP vuriva kaakau ‘bad dog’ is split: vuriva ‘bad’ precedes the verb and kaakau ‘dog’ follows it.

(352) oira-to vuri-va kaakau upo-pa-re-voi
man-SG.M bad-SG.F dog hit-CONT-3SG.Mβ-PRESβ
The man is hitting the bad dog.

(353) oira-to vuri-va upo-pa-re-voi kaakau
man-SG.M hit-CONT-3SG.Mβ-PRESβ dog
The man is hitting the bad dog.

7.2.2 Displacement of O

Although objects cannot freely move from their preverbal position, there are possibilities for right-displacement to a post-verbal position, although they are subject to syntactic constraints. Objects can be dislocated to a postverbal position, either in part, as in (354), or in full, as in (355).

(354) oira-to vuri-va upo-pa-re-voi kaakau
man-SG.M hit-CONT-3SG.Mβ-PRESβ dog
The man is hitting the dog.

(355) oira-to aue upo-pa-re-voi vuri-va kaakau
man-SG.M hit-CONT-3SG.Mβ-PRESβ bad-SG.F dog
The man is hitting the bad dog.

The word aue occurs when the entire NP is right-dislocated and therefore serves as some sort of placeholder. It does not occur when only the head noun is dislocated. In fact, when only the head noun is dislocated, it cannot occur, as shown by the ungrammaticality of (356) and (357).
7.2 Intraclausal Syntax

(356) * oira-to vuri-va aue upo-pa-re-voi kaakau
     man-SG.M bad-SG.F CONN hit-CONT-3SG.M_PRESβ dog
The man is hitting the bad dog.

(357) * oira-to aue vuri-va upo-pa-re-voi kaakau
     man-SG.M CONN bad-SG.F hit-CONT-3SG.M_PRESβ dog
The man is hitting the bad dog.

The behavior of object noun phrases containing classifiers when right-displaced is somewhat different, as shown in (358) through (360).

(358) oira-to takura isi aio-re-va
     man-SG.M egg CLASS eat-3SG.M_RP β
The man ate an egg.

(359) oira-to aue aio-re-va takura isi
     man-SG.M CONN eat-3SG.M_RP β egg CLASS
The man ate an egg.

(360) oira-to aue isi aio-re-va takura isi
     man-SG.M CONN CLASS eat-3SG.M_RP β egg CLASS
The man ate an egg.

If a right-displaced argument consists of two coordinated noun phrases, the coordinated noun phrase is optionally preceded by aue.

(361) oira-to aue vori-re-vo torara ora sigo-a
     man CONN buy-3SG.M_IP β axe and knife-SG.N
The man bought an axe and a machete.

(362) oira-to aue vori-re-vo torara ora aue sigo-a
     man-SG.M CONN buy-3SG.M_RP β axe and AUE knife-SG.N
The man bought an axe and a machete.

The use of aue for right displacement of constituents is not limited to objects but appears to extend to oblique arguments, as well, as illustrated by some of the following sentences.

(363) rotokasi-pa-irara aue=pa ruipa-pa-a-veira kaukau
     Rotokas- DERIV-HUM.PL CONN=BEN want-CONT-3PLα-hab sweet potato
The Rotokas like sweet potatoes.
When the right-displaced argument is normally case-marked, the case-marking occurs on *aue*. If the right-displaced noun phrase is a complex coordinated noun phrase, the case-marking is optional on the coordinated noun phrase.

(364)  
\[
\text{rotokasi-pa-irara} \quad \text{*aue}=\text{pa} \quad \text{ruipa-pa-a-veira} \quad \text{kaukau} \quad \text{ora sioko}
\]

Rotokas-DERIV-HUM.PL CONN=BEN want-CONT-3PL$_\alpha$-HAB sweet potato and chayote  
The Rotokas like sweet potatoes and chayote.

(365)  
\[
\text{rotokasi-pa-irara} \quad \text{*aue}=\text{pa} \quad \text{ruipa-pa-a-veira} \quad \text{kaukau} \quad \text{ora aue}
\]

Rotokas-DERIV-HUM.PL CONN=BEN want-CONT-3PL$_\alpha$-HAB sweet potato and CONN  
sioko  
chayote  
The Rotokas like sweet potatoes and chayote.

(366)  
\[
\text{rotokasi-pa-irara} \quad \text{*aue}=\text{pa} \quad \text{ruipa-pa-a-veira} \quad \text{kaukau} \quad \text{ora}
\]

Rotokas-DERIV-HUM.PL CONN=BEN want-CONT-3PL$_\alpha$-HAB sweet potato and  
\[
\text{aue}=\text{pa} \quad \text{sioko}
\]

CONN=BEN chayote  
The Rotokas like sweet potatoes and chayote.

Right displacement of constituents is fairly common and occurs in other contexts, as well. Some examples are provided in (367) and (368) (see also §7.1.1.3).

(367)  
\[
\text{Rita} \quad \text{vearopie-a=ia} \quad \text{aasii-pa-o-i} \quad \text{aasii ua}
\]

name pretty-SG.N=LOC wear_beads-CONT-3SG.F$_\alpha$-PRES$_\alpha$ bead CLASS  
Rita puts on pretty beads. [Firchow (1984)]

(368)  
\[
\text{Kate} \quad \text{siopu-a=ia} \quad \text{sisiu-pa-o-i} \quad \text{Pita va-aro}
\]

Kate soap-SG.N=LOC wash-CONT-3SG.F$_\alpha$-PRES$_\alpha$ Peter PRO.3.SG.N-POS  
Kate washed with Peter's soap.

7.2.3 Negation

Negation in Rotokas is expressed by means of the negator *viapau* “not/nothing”. In a simple intransitive clause, negation precedes the verb, as in (369). It is questionable whether negation can follow the verb, as in (370). While a minority of speakers judge such sentences as grammatical and they are nevertheless unattested in the materials available to the author. It is unclear, however, why some speakers accept preverbal negation in intransitive clauses but not in transitive clauses.
7.2 Intraclausal Syntax

(369) **viapau roru-a-voi**
    
    NEG  happy-1SG$_{\beta}$-PRES$_{\beta}$
    I am not happy.

(370) ? **roru-a-voi**  **viapau**
    
    happy-1SG$_{\beta}$-PRES$_{\beta}$ NEG
    I am not happy.

In simple transitive sentences, negation must precede the verb, but can either occur before the object, as in (371), or immediately preceding the verb, as in (372).

(371) **viapau vii too-a**
    
    NEG  PRO.2.SG hit-1SG$_{\beta}$
    I won’t hit you.

(372) **vii viapau too-a**
    
    PRO.2.SG NEG  hit-1SG$_{\beta}$
    "I won’t hit you.”

Negation cannot follow the verb, and (373) would therefore be ungrammatical.

(373) * **vii too-a viapau**
    
    PRO.2.SG hit-1SG$_{\beta}$ NEG
    "I won’t hit you.”

There is another form of negation that takes an entire clause, or sentence, in its scope. It involves the use of **viapau** with the complementizer **oisio** at the left periphery of the clause/sentence (see also §7.3.1).

(374) **Kare uvagi-to viapau oisio ra reo-ara-vai uvu-pa-re-ve ari**
    
    Kare deaf-SG.M NEG  COMP and word-PL.N-INDEF hear-CONT-3SG.M$_{\beta}$-SUB but
    _gisipo raga=va situe-pa-re-vere_
    mouth only=COM watch-CONT-3SG.M$_{\beta}$-?
    Kare, the deaf, he doesn’t hear talk, but he can read lips.

(375) **eaviova viapau oisio Timoti voo urio-ro-e**
    
    EXCL  NEG  COMP Timothy here come-3SG.M$_{\alpha}$-IP$_{\alpha}$
    No, Timothy isn’t coming here.

Constituent negation is also accomplished by means of **viapau**. This involves the use of **viapau** immediately preceding the negated constituent, whether it is a noun, as in (376), or a pronoun, as in (377).
7.2 Intraclausal Syntax

Noun

(376) akuku-a viapau oavuavu-vai voo-ia
empty-SG.N NEG something-INDEF here=LOC
It’s empty, there’s nothing (literally: isn’t something) here.

Pronoun

(377) viapau rutu iria-vu uvui-pa-o-i ra upe ua
NEG very PPRO.3.SG.F-ALT be_able-CONT--PRES_α and Upe CLASS
situe-па-e-ve
look_at-CONT-3SG.Fβ-SUB
No woman is able to look at the Upe wearers. [Firchow (1974b:??)]

7.2.4 Interrogatives

Yes-no questions in Rotokas do not differ in form from statements. Content questions are formed by replacing the questioned constituent with a question word (wh-word). Question words occupy a sentence-initial position, as illustrated in (378) and (379).

(378) apeisi pura-u-e Raki ragai=re
how say-2SG_α-PRES_α Raki PPRO.PER.1.SG=ALL
Raki, what did you say to me?

(379) ovu=re ava=pa-u-ei
where=ALL go-CONT-2SG_α-PRES_α
Where are you going?

As can be seen from (379), question words can be modified by some of the same suffixes that modify other nouns. This is illustrated for the suffix -vai in (380) and the suffix -?? in (381).

(380) eake=re tara-pa-ri
what=ALL look_for-CONT-2SG_β
What are you looking for? [Firchow and Akoitai (1974:52)]

(381) eake=re tue-pa-u-ei
what=ALL wait-CONT-2SG_β-PRES_α
What are you waiting for? [river.txt:5]
The suffix -\textit{pa} occurs with the question word \textit{eake} ‘what’ in order to form questions of reason, cause, or motive, as illustrated in (382) and (383). In such questions, \textit{eake} sometimes co-occurs with the indefinite suffix -\textit{vai}, as illustrated in (384).

(382) $\text{eake}=\text{pa~koikoi-pa-ri}$
\hspace{1cm}what=$\text{BEN~groan-CONT-2SG}_\beta$
\hspace{1cm}Why are you groaning?

(383) $\text{eake}=\text{pa~vii~upo-re-vo}$
\hspace{1cm}what=$\text{BEN~PPRO.PER.2.SG strike-3SG.M}_\beta$-IP$_\beta$
\hspace{1cm}Why did he hit you?

(384) $\text{eake-vai-pa~voeao~riako-va~tova-pa-i}$
\hspace{1cm}what-\text{INDEF=DEM.PROX.PL.M woman-SG.F bury-CONT-3PL}_\beta$
\hspace{1cm}Why are they burying the woman? [Firchow and Akoitai (1974:??)]

Question words in some cases appear as other parts of speech, as illustrated in (385), where the question word \textit{apeisi} ‘what, how’ functions as a verb, occurring with the causative suffix -\textit{pie}.

(385) $\text{ovu}=\text{ia~apeisi-pie-pa-i-voi}$
\hspace{1cm}where=$\text{LOC~how-CAUS-CONT-3PL}_\beta$-PRES$_\beta$
\hspace{1cm}They’re doing it where why? [Firchow, 1974: 69]

### 7.3 Interclausal Syntax

This section covers a few aspects of interclausal (i.e., between-clause) syntax—that is, the syntax of clause combining. Complementation is discussed in §7.3.1; the syntax of verb phrases is covered in §7.3.2; and the syntax associated with combinations of larger clausal units (up to and including sentences) is covered in §7.3.3.

#### 7.3.1 Complementation

This section looks at complementation, which can be described as “the syntactic situation that arises when a notional sentence or predication is an argument of a predicate” (Noonan, 1985). There are a number of predicates that license full clause arguments. The intransitive verb \textit{uvui} ‘be able’ is one such predicate. Unlike other verbs, it occurs in a subjectless construction that takes a full clause argument preceded by the conjunction \textit{ra} (see §?? for additional discussion), as illustrated in (524) and (387).
(386) kovæ-to oira-to ira viapau uvui-pa-i ra
  fat-SG.M man-SG.M RPRO.3.SG.M NEG be able-CONT-PRES$a$ and
  kovo-pa-re-ve
  work-CONT-3SG.M$\beta$-SUB
  A fat man, he can’t work.

(387) riro-pa vikuta-to eera Sovire ira uvui-pa-i
  big-DERIV whistle-SG.M DEM.MED.SG.M Sovire RPRO.3.SG.M be able-CONT-PRES$a$
  ra rera uvu-ri tauai=va
  and PRO.3.SG.M hear-2SG$\beta$ far away=ABL
  Sovire is a big whistler, who you can hear from far away.

Further evidence of the lack of a subject in these constructions comes from sentences where
the subject of the complement clause ????.

(388) Buka=ia riro kaekae tapi rutu viapau uvui-pa-i ra katai voki
  Buka=LOC big long place very NEG be able-CONT-PRES$a$
  and one day
  raga=ia voa=re ava-u
  only=LOC here=ALL go-2SG$\alpha$
  Buka is a faraway place, you can’t go there in just one day.

(389) Sera Pita peo-e-voi uva kove-ro-i gogagare sovara iare uva
  Sera Pita push-3SG.F$\beta$-PRES$\beta$ and fall-3SG.M$\alpha$-PRES$\alpha$ hole inside POST and
  viapau uvui-pa-i ra rera keke-i-ve
  NEG be able-CONT-PRES$a$
  and PRO.3.SG.M see-3PL$\beta$-SUB
  Sera pushed Peter and he falls inside of a hole in the ground where it’s not possible for
  them to see him.

???

(390) Pita oisio ruipa-pa-ro-e ra aiterei taporo ava-ro eisi=re vegoaro
  Pita COMP want-CONT-3SG.M$\alpha$-IP$\alpha$ and ??? also go-3SG.M$\alpha$ LOC=ALL jungle
  Peter wanted to go with the two of them to the jungle.

(391) ragai kovo-a vagевage-pa-a-voi uvare oisio
  PRO.1.SG work-SG.N hurry.RDP-CONT-1SG$\beta$-PRES$\beta$
  because COMP
  ruipa-pa-ra-i ra opesi-pe
  want-CONT-1SG$\alpha$-PRES$\alpha$ and finish-SUB
  I am hurrying the work because I want it to finish.
For example, the verb *tavi* ‘tell’ can take an entire clause as an argument, in which case it is marked by the particle *oisio* ‘as’, as illustrated in (392), where the complement clause reports an impending event; in (393), where the embedded clause is direct speech; and in (394), where the embedded clause consists of a non-verbal predicate.

(392) oirao-pa-vira visii tavi-pa-a-voi oisio kansol urio-pa
true-DERIV-ADV PRO.2.PL tell-CONT-1SGβ-PRESβ COMP council -CONT
vigei=pa reo vate-sia
PROG.1.PL.INCL talk give-DEPSEQ
I tell you truthfully that the council is coming to talk to us.

(393) Vare igei tavi-re-vo oisio o-vuuta-vu epao oa=ia
Vare PRO.1.PL.EXCL tell-3SG.Mβ-IPβ COMP ALT-time-ALT RPRO.3.SG.N=LOC
vore-ra-vere visii keke-sia
return-1SGα-NF PRO.2.PL see-DEPSEQ
Vare told us that on another occasion, I will come back to see you guys.

(394) vii tavi-pa-a oirao-pa-vira oisio vori-a-aro vuri-to kopi-a
PRO.2.SG tell-CONT-1SGβ true-CONT-ADV COMP buy-SG.N-POSS bad-SG.M die-SG.N
raga
only
I tell you truly that the wages of sin is death.

In some cases, the complement clause is marked only by *oisio*. However, in other cases, *oisio* co-occurs with the coordinator *ra*. This is primarily restricted to cases where the meaning of the verb *tavi* is “to instruct” or “to tell”—i.e., directive or jussive contexts.

(395) Rutu Siko tavi-e-voi oisio ra raverave-virararau ua pore-e-ve
Rutu Siko tell-3SG.Fβ-PRESβ COMP and weaken.RDP- flower CLASS turn-3SG.Fβ-SUB
Ruth told Siko to gently bend the flower.

(396) kakae-to tavi-e-voi aako-va oisio ra goro-ara sii-ere-ve
child-SG.M tell-3SG.Fβ-PRESβ mother-SG.F COMP and snot-PL.N wipe-3DL.F-SUB
The mother told the children to wipe the snot (from their noses).

The co-occurrence of *oisio* and *ra* is not specific to the verb *tavi* or to complementation, since *oisio* and *ra* co-occur outside of the context of complementation, as in(397) and (400).
(397) *eto tara-pa-ro-e Siape oisio ra eto kasi-ro*  
fire seek-CONT-3SG.Mα-IPα Siape COMP and fire burn-3SG.Mα  
Siape was searching for fire in order to make a fire.

(398) *Samuel=ia vootu-a-epa oisio ra voea=pa tore-pa-ro eisi*  
Samuel=LOC vote-3PLα-RPα COMP and PRO.PL.M=BEN stand_up-CONT-3SG.Mα LOC  
parliament  
They voted for Samuel in order for him to stand up in parliament.

(399) *Ruben sikuru-sia ava-ro-e eisi sikuru-a oisio ra tarai-a-vai*  
Ruben school-DEP.SEQ go-3SG.Mα-LOC school-SG.N COMP and learn-SG.N-INDEF  
ou-re-ve  
get-3SG.Mβ-SUB  
Ruben went to school so that he would obtain knowledge.

On the basis of examples such as (395) or (400), one might conclude that *oisio ra* has a purposive meaning, and that the common thread between the various usages is purposive semantics. However, there are clearly instances where there is no clear purposive relation between the first clause and the second clause conjoined with *oisio ra*.

(400) *Raki kokopeko-pa-ro-i oisio ra kopii-ro*  
Raki unconscious.RDP-CONT-3SG.Mα-PRESα COMP and die-3SG.Mα  
Raki is unconscious and about to die.

The conjunction *ra* also occurs by itself, without *oisio*, as illustrated in (401) and (??).

(401) *tupa kapu-pie-a goru-vira rutu ra viapau ira-i va*  
doors tight-CAUS-1SG.β strong-ADV very and NEG RPRO.3.SG.N-? PRO.3.SG.N  
karu-re-ve  
open-3SG.Mβ-SUB  
I close the door very strongly and nobody can open it.

(402) *aue koetaova-pa-re aite-to ra ora-tuuutuko-a-ve*  
hey arrange_marriage-CONT-3SG.Mβ father-SG.M and RR-repay-3PLα-SUB  
riako-rire=ia  
woman-DL.F=LOC  
Hey, father arranged things and they will make a payment exchange for the two women.

For a general overview of clause combining in Rotokas, and further discussion of *ra*, see §7.3.3.
7.3 Interclausal Syntax

7.3.2 Verb Phrases

There are two constructions that involve more than one verb in a clause without explicit coordination in the form of a coordinator such as *ora*: dependent verbs (previously discussed in §6.2.2.5) and aspectual verbs.

7.3.2.1 Dependent Verbs

In §6.2.2.6, two patterns of inflection were described: independent and dependent. Independent verbs are fully inflected for person, number, and gender as well as tense, aspect, and mood whereas dependent verbs are inflected for neither. The order of independent and dependent verb relative to one another is fairly flexible. Although independent verbs generally precede dependent verbs, as in (403), the reverse situation is also found, as in (404).

(403) *toupievira urio-ra-vererii keke-si***a***
    
    still come-1SG-NF PRO.2.SG see-DEP.SEQ
    
    I will still come to see you.

(404) **vii keke-si**a** vore-pa-rai vokipavira**

    PPRO.2.SG see-DEP.SEQ return-CONT-1SG-PRESa tomorrow
    
    I’ll return to see you tomorrow.

Dependent verbs in Rotokas can be described as “verb serialization” to the extent that ???.

The subject is the only argument that is necessarily shared between the independent verb of a clause and any dependent verbs. Co-reference between two non-subjects requires the use of a pronoun, as in (405) and (407), where the patient/theme of the independent verb is co-referential with the patient/theme of the dependent verb and the independent verb’s patient/theme is realized as a full NP while the dependent verb’s patient/theme takes the form of a coreferential pronoun.

(405) *poris-irara oira-to ou-i-voirerrera tuuke-siavuare*

    police-HUM.PL man-SG.M get-3PLβ-PRESβ PPRO.3.SG.M lock.up-DEP.SEQ because
    
    riako-va kopii-pie-re-vora
    
    woman-SG.F die-CAUS-3SG.Mβ-PRESβ
    
    The police are getting the man to jail him because he killed a woman.

(406) *Raviata Terita ruvaru-re-voirerrera aavito-ororaviata* treated *Terita with medicine-3SG.Mβ-PRESβ PPRO.3.SG.M cure-DEP.SIM

    Raviata treated Terita with medicine, curing him.
Argument sharing does not occur, even between multiple dependent verbs with the same patient/theme, as in (407).

(407) oira-to * peopeo-pa-oro   utu-a-e   rera   viki-pie-sia  
    man-SG.M push-CONT-DEP.SIM follow-3PL-1P α  PPRO.3.SG.M fall-CAUS-DEP.SEQ  
    eisi  uuko  vaga-pa  
    LOC  water  fall-DERIV  
They followed behind the man pushing him in order to make him fall off the waterfall.

7.3.2.2 Aspectual Verbs

The verb roots *rovo* ‘start, precede’ and *ovoi* ‘finish’ both take a single argument and show α agreement by default, as can be seen in (408) and (409).

(408) vosia parura-to  rovo-pa-ro   ra  rera  rata  aue=ia  
    if  blister-SG.M  start-CONT-3SG.M α  and  PPRO.PER.3.SG.M  heat_up  CONN=INST  
    viivi=ia  
    betel_nut_husk=ABL  
If a blister starts, heat it up with a betel nut husk.

(409) ovoi-ra-i   ari  riro-vira  rutu  aio-a-voi  uva  vukuu-ra-i  
    finish-1SG α -PRES α  but  big-ADV  very  eat-1SG β -PRES β  and  fill_up-1SG α -PRES α  
I’m finished but I ate a lot and I filled up.

These verbs also serve to provide aspectual information in a clause, in which case they are able to co-occur either with a bare verb stem, as in (410), or with a dependent verb, as in (411).

(410) Ibu  iava  aapaapau  rovo-ro-epa  
    Ibu  POST  visit  start-3SG.M α -RP α  
He came first from Ibu to visit.

(411) koko-a  rovo-pa-i   karu-pa-oro  
    flower-SG.N  start-CONT-PRES α  open-CONT-DEP.SIM  
The flower is starting to open up.

The form of verbal agreement found on aspectual verbs is dependent upon the classification of the verb with which they co-occur. Aspectual verbs are α if they occur alone, as already seen in (408) and (409) or if they occur with a dependent verb, as in (412).
7.3 Interclausal Syntax

(412) 
ragai  rovo-pa-ra-i  kiro-pa-ororo  vukua=ia
PPRO.PER.1.SG start-CONT-1SG.$\alpha$-PRES,$\alpha$ write-CONT-DEP.SIM book=LOC
I am starting to write in the book.

However, when aspectual verbs occur with bare verb stems, they take the form of agreement dictated by the bare verb stem. If the aspectual verb occurs with a bare $\alpha$ verb stem, it will show its usual classification, as illustrated in (413) and (414).

(413) 
Tesia avaio-va  iria  kavau  rovo-o-ra
Tesia first-born-SG.F RPRO.3.SG.F be_born start-3SG.F.$\alpha$-DP.$\alpha$
Tesi the first-born was born first.

(414) 
voea  rutu  koova  rovo-pa-a-vere  pupi-pa-ororo
PRO.3.PL very sing_and_dance start-CONT-3PL.$\alpha$-NF play_pipe-CONT-DEP.SIM
All of them will start dancing, blowing the pipes and singsing. [Firchow (1984)]

However, the aspectual verb shows $\beta$ agreement when it occurs with any verb root or stem that shows $\beta$ agreement—for example, a bare verb root, such as the monovalent verb root tou ‘be’ in (415); a labile verb root that takes a direct object, such as aio ‘eat’ in (416); and a causative verb stem, such as atepie ‘make wait’ in (417).

(415) 
oire  uva  rera=re  voreri-vira  keera-a-epa  roo  ira
okay and PRO.3.SG.M=ALL return-ADV call--RP.$\alpha$ DEM.3.SG.M RPRO.3.SG.M
voosi-vira  tou  rovo-pa-re-ve
blind-ADV be start-CONT-3SG.M.$\beta$-HAB
So for the second time they called the man who had been blind [John 9:24]

(416) 
Rarairi  varu-ara=ia  ovoi-pa-ro-i  uvare  upiriko-ara  aio
Rarairi meat-PL.N=ABL finish-CONT-3SG.M.$\beta$-PRES,$\beta$ because sweet_potato-PL.N eat
rovo-re-voi
start-3SG.M.$\beta$-PRES,$\beta$
Rarairi is last when it comes to the meat because he started eating sweet potato.

(417) 
oria-to  ate-pie  rovo-ri  osia  kovo-re-ve
man-SG.F wait-CAUS precede- as work-3SG.M.$\beta$-SUB
Wait for the man while he works.
7.3.3 Coordination

Coordination in Rotokas is accomplished by means of various particles discussed previously in §5.2.9. The most basic form of coordination (that is, the coordination of non-clausal constituents—nouns, adverbs, verbs) is accomplished by means of the conjunction *ora*, which is illustrated in (418), where two nouns are coordinated; (419), where two oblique adjuncts are coordinated; in (420), where two adverbs are coordinated; in (421), where two temporal nouns are coordinated; and in (422), where two dependent verbs are coordinated.

Coordination of NPs

(418)  
\[
\text{sigo-a} \quad \text{ora tora-ara} \quad \text{oarea} \quad \text{vearo-vira tou-pa-i}
\]
\[
\text{knife-SG.N and axe-PL.N RPRO.3.PL.N good-ADV be-CONT-3PL/β}
\]
The knife and the axe, they are fine.

Coordination of Obliques

(419)  
\[
\text{avaraosi} \quad \text{kare oea} \quad \text{voo tou-pa-i-veira}
\]
\[
\text{type_of_grasshopper FP RPRO.3.PL.M here be-CONT-3PL/β-HAB}
\]
\[
\text{teto-ara=ia} \quad \text{ora vo-garavesi-ara=ia} \quad \text{tapo}
\]
\[
\text{wild.banana-PL.N=LOC and SPEC-pandanus-PL.N=ABL also}
\]
Avaraosi grasshoppers, they live on wild banana and also on pandanus.

Coordination of Adverbs

(420)  
\[
\text{kaakauko} \quad \text{kore kare iava oira} \quad \text{iria} \quad \text{iava vara ua}
\]
\[
\text{type_of_beetle insect FP POST PPRO.3.SG.F RPRO.3.SG.F POST body CLASS}
\]
\[
\text{vurivuri-vira ora kaapo-vira tou-pa-i-veira}
\]
\[
\text{brown-ADV and white-ADV be-CONT-3PL/β-HAB}
\]
The bodies of kaakavuko insects are brown and white.

Coordination of Temporal Nouns

(421)  
\[
\text{kaku-va} \quad \text{iria} \quad \text{gau-pa-e-veira} \quad \text{ovaiaro-vi} \quad \text{ora avitoava}
\]
\[
\text{frog-SG.F RPRO.3.SG.F cry-CONT-3SG.F/β-HAB evening-DIM and afternoon}
\]
The frog cries in the afternoon and at night.
Coordination of Dependent Verbs

(422) avata-pa-to tugara-to ira oisioa keera-pa-i-ve
spirit_house-DERIV-SG.M ghost-SG.M RPRO.3.SG.M always beckon-CONT-3PL,β-SUB

upo pura-pa-sia ora aio kovo-ro pura-pa-sia
war make-CONT-DEP.SEQ and food garden-PL.CL make-CONT-DEP.SEQ

The ghosts of the spirit house always call to make war and to make gardens.

Whereas *ora* is primarily used to conjoin noun and verb phrases, *ra* (an apparent phonolog-ical reduction of *ora*) is used to conjoin clauses. Loosely speaking, it functions to conjoin clauses that are tightly connected. This includes conditionals and complement clauses (see §7.3.1) as well as quasi-conditional clauses, where there is a causal dependency between the first clause and the second, such as (423) or (424). In both cases, the first clause is an imperative and the second clause is a description of the state of affairs that will result if the addressee accomplishes the action encouraged by the imperative.

(423) ao-a rukue-ri ra aviavi-ve
light-SG.N turn_on-2SG,β and shine-SUB
Turn on the light and it will shine.

(424) sipito, oira-ra oara rutu areii-ri ra vearo-vira
chief man-HUM.PL RPRO.3.PL.M very organize-2SG,β and good-ADV
kareke-a-ve
appear-3PL,α-SUB
Chief, organize all the people and they will look good.

Sentences such as (423) and (424) are very similar to conditionals, in which the protasis (if-clause) and apodosis (then-clause) are conjoined by *ra*, as illustrated in (425) and (426).

(425) vosia kakae-to gau-pa-re-ve ra rera tavi-pa-e-ve
if child-SG.M cry-CONT-3SG.M,β-SUB and PPRO.3.SG.M tell-CONT-3SG.F,β-SUB
aako-va oisio tape
mother-SG.F COMP shush
If a boy cries, his mother will tell him to be quiet.

(426) vosia Erava poko-viro ra vigei rutu raku-e-ve voo Togarao
if Balbi erupt-RES and PPRO.1.PL.INCL very cover-3SG.F,β-SUB here Togarao
If Mt. Balbi erupts, it will cover all of us here in Togarao.
There is another conjunction found in Rotokas, *uva*, which is used exclusively for conjunction at the sentential level. It is typically found in topic chains, where numerous sentences sharing a single topic are strung together in sequential order, as exemplified in (427) and (428).

(427)  
a.  *riro kaekae-vira*  *pau-ra-e*  
big long.RDP-ADV sit-1SG_α-IP_α  
I sat down for a long time

b.  *uva asiso-ra-i*  
and sore-1SG_α-PRES_α  
and I’m sore.

(428)  
a.  *ragai vaisi-i-vo oiso pirati kaviru-a-vo*  *Siku oira-aro*  
PRO.1.SG call-3PL_β-PRES_β COMP peanut steal-3PL_α-IP_α Siku PRO.3.SG.F-POSS  
They called me out as I stole Siku’s peanuts.

b.  *uva ragai*  *kotu-i-voi oira=pa*  
and PRO.1.SG court-3PL_β-PRES_β PRO.3.SG.F=BEN  
and they took me to court for it

c.  *uva ragai=pa roroveara-ro-e Sepiri*  
and PRO.1.SG=BEN clarify-3SG.M_α-IP_α Sepiri  
and Sepiri straightened things out for me.

d.  *uvare vegei rutu tou-pa-ve-vorao*  
because PRO.1.DL very be-CONT-1DL-NP_β  
because the two of us were both there.

Although sentences conjoined by *uva* typically share a subject, subject-sharing is not a strict necessity, as shown by (429), where co-reference occurs between the patient in (a) and the (notional) possessor in (b), or (430), where the subject of (a) and (b) are distinct individuals.

(429)  
a.  *Raki aau-pie-re-vo ravireo*  
Raki blinded_by_light-CAUS-3SG.M_β-IP_β sun  
The sun blinded Raki

b.  *uva osirei-to voosi-ro-e*  
and eye-SG.M be_blind-3SG.M_α-IP_α  
and his eyes are blind.
7.3 Interclausal Syntax

(430) a. Sipi asige-o-e
   Sipi sneeze-3SG.F\textsubscript{α}-IP\textsubscript{α}
   Sipi sneezed

b. uva oisio pura-o-e Vitera pauto-vi virako-pa-re
   and COMP say-3SG.F\textsubscript{α}-IP\textsubscript{α} Vitera God-DIM bless-CONT-3SG.M\textsubscript{β}
   and Vitera said bless you

The conjunction uvare ‘because’ appears to be derived from uva, being morphologically
analyzeable as uva plus the enclitic =re.

(431) gae-o-e revasi-va oira-to iava uvare rera toe-i-vo
   run-3SG.F\textsubscript{α}-IP\textsubscript{α} blood-SG.F man-SG.M POST because PPPO.3.SG.M cut-3PL\textsubscript{β}-IP\textsubscript{β}
   The man’s blood ran because they cut him.

(432) tarausisi ragai=ia garo-pa-ro-e uvare riro-toa
   trousers PPPO.1.SG=loc loose-CONT-3SG.M\textsubscript{α}-IP\textsubscript{α} because big-SG.M
   The trousers were loose on me because they’re big.

Another coordinator that appears to be derived from uva is ovusia ‘while’, which is illustrat-ed in (433) and (434).

(433) oira-to reoreo-pa-ro-e ovusia viovoko-pa-irara rera
   man-SG.M talk.RDP-CONT-3SG.M\textsubscript{α}-IP\textsubscript{α} while whistle--HUM.PL PPPO.3.SG.M
   gori-pie-pa-i-vo vuri reo-ro raga pura-pa-or\textsubscript{a}
   turn\textsubscript{from}-CAUS-CONT-3PL\textsubscript{β}-IP\textsubscript{β} bad word- only make-CONT-DEP.SIM
   The man talked while the teenagers just talked back with bad talk.

(434) Rorisi agara-pie-e-voi Kepi ovusia ito-va ou-pa-e
   Rorisi be\textsubscript{startled}-CAUS-3SG.F\textsubscript{β}-PRES\textsubscript{β} Kepi while banana-SG.F get-CONT-3SG.F\textsubscript{β}
   Kepi startled Rorisi while she was getting a banana.

The particle teapi is used to conjoin a clause that describe an undesirable situation of some sort. Such clauses have been variously labelled in the literature as “apprehensional” (Dixon, 1977) or “timitive” (Palmer, 2001:22). In Rotokas, they are associated with the subjunctive mood (see §6.2.2.7).

(435) avuki-vira monia tovo-a-vo benk=ia teapi va kaviru-i-ve
   secure-ADV money put-1SG\textsubscript{β}-IP\textsubscript{β} bank=ABL lest PPPO.3.SG.N steal-3PL\textsubscript{β}-SUB
   I am putting money in the bank so that they don’t steal it.
There is another particle, *ari*, used to conjoin clauses whose meaning is less clear-cut than the previously-mentioned ones. In most cases, it would be naturally translated as *but* in English—for example, in (437) and (438).

(437)  *aite vao ou-pa-re ari vii eva evoa*

father PRO.??? .SG.N get-CONT-3SG.M β but PRO.2.SG -? there
Dad is getting this one but you (are getting) that one.

(438)  *Tomas vareo ou-pa-re vuku-arei ari ragai katai-vai ou-pa-a*

Tomas ??? get-CONT-3SG.M β book-DL.N but PRO.1.SG one-INDEF get-CONT-1SG β
Thomas is buying these two books but I’m going to just get one.
Part III

Verb Classes in Rotokas
Chapter 8

Verb Classes in Rotokas

In §6.2.2.6, it was established that the form of verbal subject agreement and of tense/mood marking consists of two classes, which were labelled simply $\alpha$ and $\beta$. These labels were chosen for their neutrality; they do not presuppose any particular analysis of what these two inflectional classes correspond to. The analysis of these two classes of verbal inflection is the central concern of this thesis and the remaining chapters will examine the issue in greater detail. In this chapter, the basic problem will be formulated. In §8.1, the formal nature of the distinction will be more firmly established and a clear set of diagnostics for its recognition will be provided. In §8.2, the basic problem is stated and a tentative hypothesis concerning its solution is put forward, which will be refined in later chapters as the facts of the matter are established.

8.1 Two Verb Classes: $\alpha$ and $\beta$

The distinction between $\alpha$ and $\beta$ agreement and TAM marking imposes a two-way classification on all verb stems for the purposes of verbal inflection. This classification is observable for individuals tokens of a verb root or stem, in the sense that most instances of an independent verb (as opposed to a dependent verb—see §6.2.2.5) can be unambiguously assigned to one of these two classes. The morphological diagnostics that can be used to identify a particular token as $\alpha$ or $\beta$ will be discussed in §8.1.1. Although the classification of a particular token is generally straightforward, there are a few complications and exceptions, which will also be discussed in §8.1.1.
8.1 Two Verb Classes: \(\alpha\) and \(\beta\)

8.1.1 Morphological Diagnostics

Since the primary concern of this part of the thesis is the distinction between two forms of verbal agreement, it pays to be clear about how that distinction is established. What form does it take and what conditions are involved? The distinction between \(\alpha\) and \(\beta\) verbs is not simply a property of verbal subject agreement, since it divides into two classes not only the verbal subject agreement markers but also the tense/mood markers. Each will be discussed in turn.

8.1.1.1 Verbal Subject Agreement

The two classes of verbal subject agreement were already introduced in §6.2.2.6 and are repeated below for convenience.

As Figure 8.1 shows, the distinction between \(\alpha\) and \(\beta\) agreement is not found in all configurations of person, number, and gender. In fact, it is found only in the singular and the third person plural. For example, verbs with a first person singular subject can be easily identified as \(\alpha\) or \(\beta\), as illustrated by (439) and (440).

\[(439)\] \textit{ava-\textit{ra-i}} \quad \textit{eisi} \quad \textit{uuko-\textit{vi}} \quad \textit{sisiu-\textit{sia}}
\quad \textit{go-1SG}_{\alpha}-\textit{PRES}_{\alpha} \quad \textit{LOC} \quad \textit{water-DIM} \quad \textit{bathe-DEP-SEQ}
I’m going to the river to bathe.
Verb Classes in Rotokas

8.1 Two Verb Classes: \(\alpha\) and \(\beta\)

(440) ragai  raga asiko-vira  tou-pa-a-voi  kepa=ia

PRO.1.SG only alone-ADV be-CONT-1SG\(_\beta\)-PRES\(_\beta\) house=ENC

I am alone in the house.

If a verb occurs with a subject that is not third personal plural or singular, only TAM marking reveals the class of the verb. For example, the form of subject agreement is the same in (441) and (442) since the subject is third person masculine dual in both cases, but the difference in classification is nevertheless identifiable on the basis of TAM marking: \(-ei\) for \(\alpha\) in the case of (441) and \(-voi\) for \(\beta\) in the case of (442).

(441) Pita vaio  ora Kariri ava-si-ei  voka-sia

Peter and Kariri go-3.DL.M-PRES\(_\alpha\) walk-DEP.SEQ

Pita DL.ANIM and Kariri go-3.DL.M-PRES\(_\alpha\) walk-DEP.SEQ

Peter and Kariri are going for a walk.

(442) vaea-vira  vaiterei-o  keke-pa-si-voi  kuvupa-toarei

same-ADV PRO.3.DL.M-? look-CONT-3DL.M-PRES\(_\beta\) shirt-DL.M

These two shirts look the same.

On the basis of (443) or (444) alone, for example, it would not be possible to determine which class the verb stem \(tou\) ‘be’ belongs to since tense/mood marking is absent (thanks to the possibility of zero-marking for the present realis).

(443) Tasia ora Vitera tou-pa-ere  aore-pa-vira

Tasia and Vitera be-CONT-3DL.F different-DERIV-ADV

Tasia and Vitera are different (i.e., belong to different clans).

(444) vo  oisioa tou-pa-io  voari tuariri igei  aao  opo

here always be-CONT-1PL.EXCL long ago  PRO.1.PL.EXCL PRO.Poss.1.SG taro

kovo  toki-pa-oro

garden care_for-CONT-DEP.SIM

Long ago we were here caring for our taro gardens.

There are three ways in which subject agreement may be lacking on a verb stem. First, dependent verbs always lack subject agreement, as illustrated in (445) and (446). The lack of agreement is one of the two criteria for their identification (the other being the lack of tense/mood markers—see §6.2.2.5).

(445) Tasia aivaro-sia  ava-o-e  Vitera=va

Tasia meet-DEP.SEQ go-3SG.F\(_\alpha\)-IP\(_\alpha\) Vitera=COM

Tasia went to meet with Vitera.
8.1 Two Verb Classes: $\alpha$ and $\beta$

(446) Vaeako riro-vira pupuraki-o-i eisi=va kare-pa-ororo sikuru-a
   Vaeako big-ADV sweat-3SG.F$_\alpha$-PRES$_\alpha$ LOC=ABL return-CONT-DEP.SIM school-SG.N
   Vaeako sweats a lot returning home from school.

Second, verbs with neuter subjects normally show null agreement (though see §6 on the use of third person plural agreement with neuter subjects), as illustrated in (447) and (448).

(447) rerio vori-a-aro aepa-∅-voi rutu
   radio pay-SG.N-POSS expensive-3SG.N-PRES$_\beta$ very
   The price of a radio is very high.

(448) kikisi kukuuku-pa-∅-voi
   ball hit_ground-CONT-3SG.N-PRES$_\beta$
   The ball is hitting the ground.

The third case is when verbs lack both subject marking and TAM marking, which appears to be restricted to verbs with a third person singular subject (regardless of gender) in the present realis, as in (449) and (??).

(449) vovokio kakau vori-pa-to urio-pa varao rutu vori-sia
   today cocoa buy-DERIV-SG.M come-CONT DEM.PROX.PL.N very buy-DEP.SEQ
   kakau-ara vigei vara-aro
   cocoa-PL.N PRO.PER.1.INCL PPRO.3.SG.N-POSS
   Today the cocoa buyer is coming to buy all of our cocoa.

(450) FIND TEXT EXAMPLE

In cases where verbal agreement for subject is uninformative with respect to the classification of a verb, the marking of TAM marking is usually more revealing.

8.1.1.2 Tense/Aspect/Mood

Rotokas has a number of verbal suffixes marking various categories of tense, aspect, and mood (TAM), and these are also sensitive to the distinction between $\alpha$ and $\beta$ verbal inflection, as shown in Table 8.1 (see §6.2.2.7 for discussion).
Verb Classes in Rotokas

8.1 Two Verb Classes: \( \alpha \) and \( \beta \)

<table>
<thead>
<tr>
<th>Tense</th>
<th>( \alpha )</th>
<th>( \beta )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>-ei</td>
<td>-voi</td>
</tr>
<tr>
<td>Immediate Past</td>
<td>-e</td>
<td>-vo</td>
</tr>
<tr>
<td>Near Distant</td>
<td>-era</td>
<td>-vora</td>
</tr>
<tr>
<td>Distant Past</td>
<td>-erao</td>
<td>-vorao</td>
</tr>
<tr>
<td>Remote Past</td>
<td>-epa</td>
<td>-va</td>
</tr>
</tbody>
</table>

Table 8.1 Realis Tense Markers By Verbal Classification (\( \alpha \) vs. \( \beta \))

TAM in fact provides a better diagnostic of the distinction between the two classes than verbal agreement, given that it is found for all TAM categories whereas in verbal subject agreement, the distinction is restricted to a subset of the available categories. This can be seen in (451) and (452), where verbal subject agreement is uninformative but the classification of the verb stem is nevertheless identifiable on the basis of TAM.

(451) \[ \text{asi } evoa \ tou\text{-pa-si-voi} \]

of course there be-CONT-3DL.M-PRES\( \beta \)

Why of course the two of them are over there!

(452) \[ \text{Tavi vaio } ora \ Raketetevu \ tutaa\text{-pa-si ei} \quad \text{Rake vo-kepa-aro } iare \]

Tavi ANIM.DL and Rake sago sew-CONT-3DL.M-PRES\( \alpha \) Rake SPEC-house-POSS POST

Tavi and Take are sago-sewing for Rake’s house.

In some cases, there is ambiguity concerning the proper segmentation of the agreement and TAM suffixes, as illustrated in (453) and (454), where the same verb form is found but arguably possess different underlying morphemes. The suffix -i is a verbal agreement marker for the third person plural in (453) and (454).

(453) \[ \text{kokio kare eraerao-vira tou-pa-i } evao-va=ia } \]

bird PL two.RDP-ADV be-CONT-3PL\( \beta \) tree-SG.F=LOC

The birds are on the tree in pairs.

(454) \[ \text{tugitugi-ara tou-pa-i kepa=ia riro-ara} \]

room.RDP-PL.N be-CONT-3PL\( \beta \) house=LOC big-PL.N

Many rooms are in the house.

In (455) and (456), however, the analysis of the suffix -i is unclear; it could be analyzed as a marker of plural subject agreement or the present tense realis marker -ei (which reduces to -i according to productive morphophonemic rules—see (293)).
8.1 Two Verb Classes: $\alpha$ and $\beta$

Verb Classes in Rotokas

(455) Teokon urui oa tou-pa-i Wakunai=ia ruvara=ia

Teokon village RPRO.3.SG.N be-CONT-3PL/$\beta$-PRES$_{\alpha}$ Wakunai=LOC near=LOC

Teokon village is close to Wakunai.

(456) sirovie-vira rutu tou-pa-i veeta kou

striped-ADV very be-CONT-3PL/$\beta$-PRES$_{\alpha}$ bamboo CLASS

Bamboo is striped.

Since (455) and (456) both have singular neuter subjects, the analysis of -$i$ as a marker of the present tense realis seems reasonable; however, examples of third person neuter subjects with plural agreement, such as (457) and (458), suggest otherwise.

(457) veveto-vira rutu tou-pa-i-voi sigo-a

sharp-ADV very be-CONT-3PL/$\beta$-PRES$_{\beta}$ knife-SG.N

The knife is very sharp.

(458) kasirao-vira tou-pa-i-voi uuko rovu

hot-ADV be-CONT-3PL/$\beta$-PRES$_{\beta}$ water CLASS

The water is really hot.

Further evidence in favor of analyzing the suffix -$i$ in (455) and (456) as an agreement marker (as opposed to the present tense realis) comes from the agreement patterns observed for other $\beta$ verbs, such as paru ‘flow’, as in (459) and (460).

(459) uuko-vi oa arasi-vira rutu paru-pa-i-veira

water-DIM RPRO.3.SG.N nice-ADV very flow-CONT-3PL/$\beta$-HAB

The water flows very nicely.

(460) viarora kou raga tuvu-a tupa-vorao oa iava viapau vearo-pie-vira

wild_pitpit CLASS just mud-SG.N cover-NP$_{\beta}$ therefore NEG good-CAUS-ADV

paru-pa-i-veira uuko-a

flow-CONT-3PL/$\beta$-HAB water-SG.N

Wild pitpit covered the mud and therefore the water doesn’t flow well.

Further support for the interpretation of the suffix -$i$ as an agreement marker in (453) and (458) comes from instances of the same verbs with null subject agreement but $\beta$ TAM marking, as in (461) and (462).
8.2 Firchow’s Problem: What is the α/β Distinction?

The basic problem that will be addressed here could be called Firchow’s Problem, given that it was originally recognized by Firchow (1987), who observes that the analysis of the distinction between α and β verb morphology poses a number of analytical challenges due to its imperfect correlation with transitivity. There are essentially two main issues. First, Firchow (1987:22) observes that the notion of transitivity is somewhat slippery:

The root of the problem is the notion of ”transitiveness” [sic] (which is even unclear in the analysis of English verbs). What are the parameters of transitiveness? Can the verb “to walk” be transitive because there is some goal or direction involved? Why is “to walk” considered transitive in Rotokas when the verb “to return” is never transitive and a goal or direction is more obviously implied in the latter?
8.2 Firchow’s Problem: What is the $\alpha/\beta$ Distinction? Verb Classes in Rotokas

What Firchow (1987) had in mind with this observation is that verbs with no obvious difference in transitivity are nevertheless classified differently. In other words, if transitivity determines verb classification, why do verbs with the same transitivity show different classification? For example, the verb *kare* ‘return’ is $\alpha$ whereas the *voka* ‘walk’ is $\beta$. Yet neither takes an object and no goal needs to be made explicit, as can be seen in (465).

(465) a. *kupero-vira raga voka-pa-a-voi*
   unaware-ADV just walk-CONT-1SG$_\beta$-PRES$_\beta$
   I have been walking around unaware.

   b. *kare-pa-ra-i atoi iare*
   return-CONT-1SG$_\alpha$-PRES$_\alpha$ vilage POST
   I am going back to the village.

Second, Firchow (1987) also observes that intransitive and transitive verbs alike show unexpected classification:

The problem is that some verbs such as *voka* ‘to walk’ are also inflected by the “transitive” sets of markers (*voka-re-va* ‘he walked years ago’), while some verbs such as *ruipa* ‘to desire (something)’ are inflected by the “intransitive” sets of markers (*ruipa-ro-epa* ‘he desired (it) years ago’).

This is illustrated for the two verb stems mentioned by Firchow (1987): *voka* ‘walk’ in (466) and *ruipa* ‘want’ in (467). The contrast between the classification of the two verbs is readily observable, given that both occur with first person singular subjects and in the present tense realis.

(466) *kupero-vira raga voka-pa-a-voi*
   clueless-ADV just walk-CONT-1SG$_\beta$-PRES$_\beta$
   I was just walking around clueless.

(467) *oari=pa ruipa-pa-ra-i riako-va*
   DEM.3.SG.F=BEN like-CONT-1SG$_\alpha$-PRES$_\alpha$ woman-SG.N
   I like that woman.

On the basis of these considerations, Firchow (1987) suggests that either transitivity is not the relevant parameter or it must interact with other (not yet identified) parameters. In the following section, the notion of transitivity and valency will be examined more closely.
8.3 Transitivity and Valency

This section distinguishes between the transitivity and valency in order to set the stage for the in-depth discussion of valency and valency-changing derivations provided in Chapter 9 and Chapter 10, respectively.

8.3.1 Transitivity

The notion of “transitivity” held by Firchow (1987) is somewhat rough-and-ready, and there has been considerable work done in refining the notion cross-linguistically (Lakoff, 1977; Hopper and Thompson, 1980; Givón, 1984; Kittilä, 2002; Lazard, 2003). This literature helps explain why a verb such as ruipa ‘to want’ deviates from the transitive pattern, but there is still a good deal in need of explanation. In this section, the notion of valency will be pinned down more precisely and integrated into the typology of argument types.

Before discussing valency, it is worthwhile to draw a distinction between “transitivity” and “valency”. The term ‘transitivity’ is used ambiguously in the literature. On the one hand, transitivity refers to a syntactic notion, usually the number of (core) arguments taken by a verb. According to this sense of the term, it is more or less synonymous with the term ‘valency’. On the other hand, transitivity refers to a more general semantic notion, which has to do with the extent to which an action carries over from agent to patient (Hopper and Thompson, 1980; Frawley, 1992), in which case it is a gradient notion, influenced by a number of different factors, such as those listed in Table 8.2.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>participants</td>
<td></td>
</tr>
<tr>
<td></td>
<td>two or more</td>
<td>one</td>
</tr>
<tr>
<td>B</td>
<td>kinesis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>action</td>
<td>non-action</td>
</tr>
<tr>
<td>C</td>
<td>aspect</td>
<td></td>
</tr>
<tr>
<td></td>
<td>telic</td>
<td>atelic</td>
</tr>
<tr>
<td>D</td>
<td>punctuality</td>
<td></td>
</tr>
<tr>
<td></td>
<td>punctual</td>
<td>non-punctual</td>
</tr>
<tr>
<td>E</td>
<td>volitionality</td>
<td></td>
</tr>
<tr>
<td></td>
<td>volitional</td>
<td>non-volitional</td>
</tr>
<tr>
<td>F</td>
<td>affirmation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>affirmative</td>
<td>negative</td>
</tr>
<tr>
<td>G</td>
<td>mode</td>
<td></td>
</tr>
<tr>
<td></td>
<td>realis</td>
<td>irrealis</td>
</tr>
<tr>
<td>H</td>
<td>agency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A high in potency</td>
<td>A low in potency</td>
</tr>
<tr>
<td>I</td>
<td>affectedness of O</td>
<td></td>
</tr>
<tr>
<td></td>
<td>O totally affected</td>
<td>O not affected</td>
</tr>
<tr>
<td>J</td>
<td>individuation of O</td>
<td></td>
</tr>
<tr>
<td></td>
<td>O highly individuated</td>
<td>O non-individuated</td>
</tr>
</tbody>
</table>

Figure 8.2 Semantic Parameters of Transitivity (Hopper and Thompson, 1980:252)

The majority of the transitivity features discussed in Hopper and Thompson (1980) are relatively self-explanatory and do not require additional discussion, but a few of these are less...
obvious and require further elaboration—namely, agency and the affectedness and individuation of O.

The parameter of agency refers to the nature of the agent that initiates an action. Although Hopper and Thompson (1980) do not clarify what is meant by A being high or low in “potency”, it appears from their discussion of the parameter that animacy is the main dimension and that a human or animate A is considered higher in “potency” than an inanimate one.

The parameter of “Affectedness of O” refers to the extent to which O is changed as a result of the situation described in a clause. [AFFECTEDNESS OF O]

According to Hopper and Thompson (1980), the parameter of “Individuation of O” refers to the distinctness of O from A and from its own background. The specific contrast to which it refers are listed below in Table 8.2.

<table>
<thead>
<tr>
<th>Individuated</th>
<th>Non-Individuated</th>
</tr>
</thead>
<tbody>
<tr>
<td>proper</td>
<td>common</td>
</tr>
<tr>
<td>human, animate</td>
<td>inanimate</td>
</tr>
<tr>
<td>concrete</td>
<td>abstract</td>
</tr>
<tr>
<td>singular</td>
<td>plural</td>
</tr>
<tr>
<td>count</td>
<td>mass</td>
</tr>
<tr>
<td>referential, definite</td>
<td>non-referential, indefinite</td>
</tr>
</tbody>
</table>

| Table 8.2 Individuation of O: Relevant Features |

For example, in Tongan, non-referential objects undergo “noun incorporation” and the subject takes absolutive rather than ergative agreement, as illustrated in (468).

(468) a. na’e kai ʻe Sion ʻa e ika
  PAST eat ERG John ABS DEF fish
  John ate the fish.

b. na’e kai ika ʻa Sione
  PAST eat fish ABS John
  John ate fish. [Hopper and Thompson (1980:257-258)]

As Hopper and Thompson (1980) observe, a prototypical transitive situation will have high transitivity values for most, if not all, of the parameters identified in Table 8.2. In other words, these parameters cluster to define a prototypical transitive situation (Lakoff, 1977; Givón, 1984; Kittilä, 2002; Lazard, 2003), and a transitive clause is a simple underived clause that describes such a situation (Næss, 2006):
a transitive situation is one in which an agent acts upon a patient, where the agent is volitionally involved in the event, causes or instigates the event, and is not affected by the event; while the patient is not volitionally involved, does not participate in the instigation of the event, but is affected by it.

There is some controversy concerning the nature of the prototypical transitive clause which hinges upon what is taken to be the prototypical object (Næss, 2006). (This is an issue that will be discussed again later, in Chapter ??.)

[SEGUE TO VALENCY]

8.3.2 Valency

In the previous section, the ‘transitivity’ was discussed and established as a semantic notion that concerns the degree to which an action carries over from agent to patient. Here it is distinguished from valency, which is a strictly syntactic notion (Tesnière, 1959; Somers, 1987; Mosel, 1991; Payne, 1997). Mosel (1991:241) characterizes valency in the following terms:

Valency is the property of the verb which determines the obligatory and optional number of its participants, their morphosyntactic form, their semantic class membership (e.g., ±animate, ±human), and their semantic role (e.g., agent, patient, recipient). The valency inherently gives information on the nature of the semantic and syntactic relations that hold between the verb and its participants.

Valency is an essentially verb-centered notion since it is primarily the verb that determines the number of arguments present in a clause. The number of possible arguments taken by a verb is stated to be the verb’s valency, possible values ranging from zero to three (avalent=0, monovalent=1, bivalent=2, and trivalent=3). Unlike core arguments, the number of circumstantials is unlimited, ranging from zero to $n$. Examples of sentences with varying numbers of circumstantials are provided in (469) through (471).

(469) Rave, vii ori-pa-u-ei oira-ra=pa ovusia vii=pa
Rave, PRO.2.SG cook-CONT-2SG$_\alpha$-PRES$_\alpha$ man-HUM.PL=BEN while PRO.2.SG=BEN kovo-i-ve
work-3PL$_\beta$-SUB
Rave, you cook for the men while they work for you.

(470) ragai sipuru=ia aio toke-pa-ra-i kakae vure=pa
PRO.1.SG spoon=LOC food serve-CONT-1SG$_\alpha$-PRES$_\alpha$ child FP=BEN
I serve food to the children with a spoon.

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Crucial to the notion of valency is the distinction between core and non-core arguments on the one hand, and between arguments and adjuncts on the other.\(^1\) [SPELL THIS OUT]

The distinction between a core argument and a non-core argument is recognized in most grammatical theories, although its instantiation may differ according to the dictates of a particular framework. Dixon (1994:6) claims that the distinction between verbs with one core argument and verbs with two core arguments is fundamental and universal:

All languages distinguish between clauses that involve a verb and one core noun phrase (intransitive clauses [monovalent]) and those that involve a verb and two or more core NPs (transitive clauses [bivalent], including ditransitive as a subtype).

On the basis of the distinction between verbs with one or two core arguments, Dixon (1979, 1994) argues for a three-way division of core arguments into S, the single core argument of an intransitive clause; A, the core argument of a transitive clause that it is prototypically associated with the agent; and O, the core argument of a transitive clause that it is prototypically associated with the patient (see Andrews (1985) for discussion and justification). (The universality of S, A, and O has, however, been called into question on various grounds (Durie, 1988; Bhat, 1991; Dryer, 1997; Mithun, 1999). This issue will be addressed in Chapter ??.)

In order to discuss valency sensibly, it is necessary to establish a core set of basic argument types. The main source for this discussion is Andrews (1985), which is summarized in Figure 8.3.

---

\(^1\) Although some authors use alternative terminology (e.g., actant vs. circumstantial), the basic concept remains largely the same.
The first major division in his classification is between internal (inner) and external (outer) functions. (This distinction is recognized in some way by most theories of grammar—for example, in Role and Reference grammar, there is a similar distinction made between core and periphery (Van Valin and LaPolla, 1997; Van Valin, 2006).) Within internal functions, core and oblique functions are distinguished. The core functions are further broken down into S, A, and O, which are defined, respectively, as the single argument of an intransitive verb, the argument of a transitive verb prototypically associated with the agent, and the argument of a transitive verb prototypically associated with the patient.

S The single core argument of a one-place predicate—e.g., *The giant is sleeping.*

A The core argument associated with the actor/agent of a prototypical transitive predicate—e.g., *The enraged drunk killed the innocent man.*

O The core argument associated with the undergoer/patient/theme of a prototypical transitive predicate—e.g., *The plumber smashed the PVC pipe with a monkey wrench.*

Oblique Adjunct A non-core argument licensed by general semantics—e.g., *Geeks program computers for the fun of it.*

Oblique Argument A non-core argument licensed by the predicate—e.g., *France supplied Iraq with missiles.*

[DISCUSS NATURE OF OPPOSITIONS, CORE VS. NON-CORE, ARGUMENT VS. ADJUNCT]

Using these grammatical primitives, a more precise statement of the relationship between grammatical roles and the two forms of verbal agreement can be formulated and evaluated on the basis of the evidence. In the following section, a preliminary hypothesis is put forward for evaluation.

### 8.4 First Hypothesis

Firchow’s observed correlation between verb classification and transitivity can be reformulated in terms of Dixon’s three primitive core argument types. The hypothesis would be that subject agreement is simply sensitive to the type of subject: the S of an intransitive verb takes $\alpha$ agreement whereas the A of a transitive verb takes $\beta$ agreement, as in (472).

\[(472) \quad \begin{align*}
  a. & \quad S \rightarrow \alpha \\
  b. & \quad A \rightarrow \beta
\end{align*}\]
According to this hypothesis, there would be a one-to-one relationship between the primitive grammatical roles of Dixon (1979, 1994) and the classification imposed by the distinction between $\alpha$ and $\beta$ verbs. This is of course only one of a number of logically possible mappings between the two, which are shown diagramatically in Figure 9.12.

<table>
<thead>
<tr>
<th>Possible Configuration</th>
<th>Role</th>
<th>Inflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-to-One</td>
<td>$S\rightarrow\alpha$</td>
<td>$A\rightarrow\beta$</td>
</tr>
<tr>
<td>Split-S</td>
<td>$S\rightarrow\alpha$</td>
<td>$A\rightarrow\beta$</td>
</tr>
<tr>
<td>Split-A</td>
<td>$S\rightarrow\alpha$</td>
<td>$A\rightarrow\beta$</td>
</tr>
<tr>
<td>Many-to-Many</td>
<td>$S\rightarrow\alpha$</td>
<td>$A\rightarrow\beta$</td>
</tr>
</tbody>
</table>

Table 8.4 Grammatical Roles and Verb Inflection

[DISCUSS WHAT THESE VARIOUS MAPPINGS ARE ABOUT]

The organization of the second part of this thesis is as follows: In the following chapter, the nature of valency in Rotokas will be examined in depth, and it will be shown that the simple hypothesis in (472)—which posits a one-to-one relationship between grammatical roles and the two forms of agreement—cannot be maintained since verbs with a single core argument (S) are split between the two forms of agreement. Although the majority of verbs with a single core argument take $\alpha$ agreement, this a sizeable minority of verbs with a single core argument that take $\beta$ agreement. In other words, Rotokas possesses split intransitivity.
Chapter 9

Valency in Rotokas

This chapter examines the nature of valency in Rotokas in an attempt to evaluate the hypothesis that verbal inflection in Rotokas is sensitive simply to the grammatical role of the subject, such that S shows $\alpha$ agreement while A shows $\beta$ agreement. Underived verb roots represent the default mappings of semantic roles and grammatical relations in the argument structure of the language and therefore are a natural starting point for investigation. Here it is established that there are two main valency types in Rotokas: monovalent verb roots (“intransitive”), which take a single argument, and bivalent verbs roots (“transitive”), which take two (or possibly three) core arguments. If a clause possesses two core argument, it will show $\beta$ agreement; however, the reverse does not hold true. If a verb shows $\beta$ agreement, it will not necessarily take two core arguments. This asymmetry owes to the fact that monovalent verb roots are split according to subject agreement: most show $\alpha$ agreement but some show $\beta$.

Crucial to the concept of valency is the distinction between core and oblique arguments (?). In Rotokas, core arguments can be distinguished from oblique arguments on the basis of a few different considerations. First, verbal agreement for person, number, and gender is sensitive to one core argument—namely, the subject. The core argument that plays the role of subject determines the choice of agreement marking on the verb and the presence of a second core argument (a direct object) automatically triggers $\beta$ agreement. Second, core arguments are relatively more restricted in their constituent ordering than other types of arguments or adjuncts (e.g., adverbs) (see §7.2.1). Third, core arguments are necessarily present either by way of verbal agreement in the case of subjects or by way of realization as a nominal (a pronoun or a lexical NP) in the case of direct objects. Finally, core arguments are unmarked (i.e., occur as bare NPs) whereas non-core arguments take some form of oblique marking.

The term predicate type is used here to describe the number of subcategorized arguments
taken by a verb, which may exceed the valency of a verb, since it also includes oblique arguments. Two-place predicates are considered monovalent here. For example, the verb stem tara ‘search for, seek’ also takes two arguments, but it is not bivalent, since one of its arguments is an oblique, which is marked by the role-marking enclitic =re, as in (473) and (474).

(473) Agiosi aakova=re tara-pa-e-vo
    Agiosi mother=ALL look_for-CONT-3SG.F_β-IP_β
    Agiosi looked for (her) mother.

(474) oira-ra ava-pa-a-i varu kare-vai=re tara-sia eisi vegoaro
    man-PL.N go-CONT-3PL_α-PRES_α meat FP-INDEF=ALL look_for-DEP.SEQ LOC jungle
    The men are going to look for game in the jungle.

Given the distinction between predicate type, valency, and verbal inflection (α vs. β), six different verb root classes can be distinguished, as shown in Table 9.1.

<table>
<thead>
<tr>
<th>Predicate Type</th>
<th>Valency</th>
<th>Agreement</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Place</td>
<td>1</td>
<td>α</td>
<td>uusi ‘sleep’</td>
</tr>
<tr>
<td>1-Place</td>
<td>1</td>
<td>β</td>
<td>gau ‘cry’</td>
</tr>
<tr>
<td>2-Place</td>
<td>1</td>
<td>α</td>
<td>ruipa ‘want’</td>
</tr>
<tr>
<td>2-Place</td>
<td>1</td>
<td>β</td>
<td>tara ‘look for’</td>
</tr>
<tr>
<td>2-Place</td>
<td>2</td>
<td>β</td>
<td>upo ‘strike’</td>
</tr>
<tr>
<td>3-Place</td>
<td>2/3</td>
<td>β</td>
<td>vate ‘give’</td>
</tr>
</tbody>
</table>

Table 9.1 Predicate Types, Valency, and Subject Agreement in Rotokas

An extensive listing of verb roots in Rotokas is provided in Chapter B, which classifies all of the known verb roots in the Rotokas lexicon. This data comes from a lexical database of Rotokas under development by the author which contains a wide variety of information, including the valency, number and type of non-core arguments, and the form of agreement for verb roots and stems. It is based on a Shoebox dictionary developed by Irwin Firchow (Firchow, 1973, 1984) and substantially refined during the course of fieldwork, either on the basis of native speaker consultation and the analysis of interlinearized texts.

The relative proportion of verb roots according to their valency type and the overall number of α versus β verb roots are provided as histograms (bar graphs) in Figure 9.2.
9.1 Background

In Rotokas, verb roots can be broadly grouped into two main valency types: monovalent roots, which take a single core argument (and possibly a second oblique argument marked by one of the case-marking enclitics described in §9.3.3), and bivalent roots, which take two core arguments. The difference between the two valency types concerns objecthood. While both monovalent and bivalent verb roots require a subject, with which they agree in terms of person, number, and gender, only bivalent verb roots take an additional core argument, a direct object, which occurs in a fixed position (see §7.2.1) and cannot be freely elided (see §??).

For example, the verb root *uusi* ‘sleep’ is monovalent and takes only a single core argument, as in (475). It cannot take an object, except through valency-changing derivations, as illustrated in (476).

(475) *Avaisisi* *ira* kei kepa=ia *uusi-pa-ro-veira* vegoaro

Avaisisi RPRO.3.SG.M leaning house=LOC sleep-CONT-3SG.M₁-HAB jungle

Avaisisi is sleeping in a lean-to in the jungle.

(476) *aako-va* kakae-to *uusi-pie-e-voi* evao ruvaru-va *rero-aro*

mother-SG.F child-SG.M sleep-CAUS-3SG.F₁-PRES₂ tree relief-SG.F underneath-POSS

Table 9.2 Relative Proportion of Valency Types in Rotokas Lexicon
By contrast, the verb root *tario* ‘chase’ is bivalent. It takes two arguments: a subject and an object. The verb agrees in person, number, and gender with the subject but not with the object. The subject can be ellipsed (elided) when contextually inferrable and/or non-emphatic, as in (478), but the object is obligatory and cannot be freely ellipsed. It occurs in a relatively fixed preverbal position (see §7.2.1), either as a bare NP, as in (477), or as a pronoun, as in (478).

(477) Pita gapu-to *oira-to tario-re-voi*
    Pita naked-SG.M man-SG.M chase-3SG.Mβ-PRESβ
    Peter is chasing the naked man.

(478) sora-to isisio kou puri-oro tori-re-vo uvaro rera
    poisoner-SG.M grass CLASS lay_down-DEP.SIM flee-3SG.Mβ-IPβ because PRO.3.SG.M
    tario-i-vo eisi Rarova
    chase-3PLβ-IPβ LOC Rarova
    The poison man fled, making the grass lie down, because they chased him in Rarova.

Some verb roots are compatible with more than one syntactic frame (i.e., valency or subcategorization frame). For example, the verb stem *reoreo* ‘talk’ occurs with a varying number of arguments. In (479), it occurs with only a single core argument—namely, the subject.

(479) Alice gae-o-ra uva viapau reoreo-pa-o-ra
    Alice be_startled-3SG.Fα-NPα and NEG talk-CONT-3SG.Fα-NPα
    Alice was startled and couldn’t talk.

In (480) through (482), the verb stem *reo* occurs with an additional argument, a non-core (i.e., oblique) argument, but the presence of this additional argument has no effect on the form of agreement. It shows α agreement even when it occurs with an addressee marked by =re in (480) or with an interlocutor marked by =va in (481). The same is true when the topic of conversation is marked by =ia in (482).1

---

1It is questionable whether “interlocutor” is the best characterization for the argument marked by =va in (481). A better gloss may be “conversational partner”. This raises the issue of the number and nature of thematic roles, which is addressed in §11.1.
9.1 Background

Neither the number of non-core arguments nor the form of oblique marking in (479) through (482) has an effect on the form of subject agreement. This can be further illustrated with the verb root tavi ‘tell’, which is labile (see §10.1.1). It takes a single core argument and shows α agreement in (483).

(483) Potaki=va kuara-pa-i-vo ovusia tavi-pa-ro-e
    Potaki=COM yell.at-CONT-3PL-β-IP-β while tell-CONT-3SG.M-α-IP-α
    They are yelling at Potaki while he talks.

In (484) through (486), however, tavi shows β agreement when it occurs with an object, as in (484); with an object and a dependent verb phrase, as in (485); and a subject, object, and complement clause, as in (486) and (487).²

²The complement clause is marked by the complementizer oisio in (486) and by oisio ra in (487).
9.1 Background

Valency in Rotokas

Addressee
(485) Pita  Jon  tavi-pa-re-va  kokotoa rupu-pie-sia
Pita Jon tell-CONT-3SG.M_{\beta}-RP_{\beta} leg be.submerged-CAUS-DEP.SEQ
Peter told John to stick his leg in the water.

Addressee
(486) tisa-to  kakae vure tavi-pa-re-va  oisio  opeita taku-vira
teacher-SG.M child FFP tell-CONT-3SG.M_{\beta}-IP_{\beta} COMP PROH bend_over-ADV
pau-pa-ta  ovusia reoreo-pa-ra
sit-CONT-2PL while talk.RDP-CONT-1SG_{\alpha}
The teacher told the children not to sit bent over while he’s talking.

Addressee
(487) sipito  oira-ra  tavi-re-vo  oisio  ava-a-ve  vuruko-a taroro-sia
chief  man-HUM.PL tell-3SG.M_{\beta}-IP_{\beta} COMP go-3PL_{\alpha}-SUB log-SG.N pry_out-DEP.SEQ
The chief told people that they should go pry out the logs.

Some verbs select very specific subcategorization frames that are not found among other verb roots. For example, the verb root kea ‘mistake, think mistakenly’ selects two oblique arguments: the thing mistaken for something else, marked by the enclitic =pa, and the thing it is mistaken for, marked by oisio.

(488) votoue-toa=pa  kea-ra-e  evao rao=ia  oisio  koora-to
ant_nest-SG.M=BEN mistake-1SG_{\alpha}-IP_{\alpha} tree branch=LOC COMP possum-SG.M
ira  pau-pa  evao rao=ia
RPRO.3.SG.M sit-CONT tree branch=LOC
I mistook the ant nest on that tree for a possum sitting on a branch.

(489) riako-va  aveke-va  peka-e-vo  uva  rakoru  keke-e-vo  uva
woman-SG.F stone-SG.F turn_over-3SG.F_{\beta}-IP_{\beta} and snake see-3SG.M_{\beta}-IP_{\beta} and
kea-o-e  oisio  uo-va
mistake-3SG.M_{\alpha}-IP_{\alpha} COMP eel-SG.F
The woman turned over the sone and saw a snake but mistakenly thought it an eel.

The examples in (479) through (486) underscore a number of important points regarding the nature of verbal inflection in Rotokas. First, the classification of a verb as $\alpha$ or as $\beta$ is not determined exclusively by the verb root. There is an interaction between the syntactic construction (“subcategorization frame”) in which a verb appears and its form of verbal inflection. Second, some syntactic constructions are consistently associated with a particular form of subject
Valency in Rotokas

9.2 Monovalent One-Place Predicates

agreement. For example, if a verb takes a direct object, its form of verbal agreement is entirely predictable—viz., it will be $\beta$. This relationship is, however, unidirectional, since the reverse does not hold true—i.e., if a verb shows $\beta$ agreement, it may not in fact possess a direct object, as we will see in the following section when we consider the behavior of monovalent verbs.

9.2 Monovalent One-Place Predicates

A monovalent verb root is one that takes only a single core argument—namely, the subject, with which the verb agrees in terms of person, number, and gender. The subject is normally realized as either a full NP or it is elided when contextually retrievable. For example, the verb root *uusi* ‘sleep’ takes a single core argument, which takes the form of a full NP in (490) but is elided in (491).

(490) *atuu* koto-vira *uusi-pa-o-i*
    flying_fox hang-ADV sleep-CONT-3SG.M-IP$_{\alpha}$-PRES$_{\alpha}$
    The flying fox sleeps hanging.

(491) *kakae-to* karavuru-ro-e *uvare* poupou=ia *uusi-pa-ro-e*
    child-SG.M get_dusty-3SG.M-IP$_{\alpha}$ because dust=LOC sleep-CONT-3SG.M-IP$_{\alpha}$
    visiko-pa-or
    play-CONT-DEP.SIM
    The child got dusty because he slept in dust while playing.

9.2.1 Agreement

Monovalent verbs can be divided into two classes on the basis of their form of agreement: $\alpha$ or $\beta$. The majority of monovalent verb roots belong to $\alpha$. In Table 9.3, a partial list of $\alpha$ monovalent verb stems is provided—see Appendix B for a complete listing.
9.2 Monovalent One-Place Predicates

<table>
<thead>
<tr>
<th>Stem</th>
<th>Gloss</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ava</td>
<td>go</td>
<td></td>
</tr>
<tr>
<td>era</td>
<td>sing</td>
<td></td>
</tr>
<tr>
<td>gapu</td>
<td>be naked</td>
<td></td>
</tr>
<tr>
<td>goagoara</td>
<td>be boiling</td>
<td>inherently reduplicated</td>
</tr>
<tr>
<td>kokoro</td>
<td>crazy, foolish</td>
<td></td>
</tr>
<tr>
<td>ogoe</td>
<td>be hungry</td>
<td></td>
</tr>
<tr>
<td>opesi</td>
<td>end, finish</td>
<td></td>
</tr>
<tr>
<td>revasi</td>
<td>bleed</td>
<td></td>
</tr>
<tr>
<td>riro</td>
<td>grow up</td>
<td></td>
</tr>
<tr>
<td>upia</td>
<td>in pain, sick</td>
<td></td>
</tr>
<tr>
<td>urio</td>
<td>come</td>
<td></td>
</tr>
<tr>
<td>uusi</td>
<td>sleep</td>
<td></td>
</tr>
<tr>
<td>uvagi</td>
<td>deaf</td>
<td></td>
</tr>
<tr>
<td>vearo</td>
<td>good, fine, well</td>
<td></td>
</tr>
<tr>
<td>vioro</td>
<td>ripe, mature green</td>
<td></td>
</tr>
<tr>
<td>voosi</td>
<td>blind</td>
<td></td>
</tr>
<tr>
<td>vuri</td>
<td>bad, spoiled, wrong</td>
<td></td>
</tr>
</tbody>
</table>

Table 9.3 Monovalent Verb Roots that Show $\alpha$ Inflection

All of the verbs in Table 9.3 show the same pattern of agreement, as illustrated for the verb root *uusi* ‘sleep’ in (492) and (493).

(492) upia-pa-ra-i   kukue iava  oa iava  **uusi-pa-ra-iei**
    hurt-CONT-1SG$_\alpha$-PRES$_\alpha$ head  POST therefore sleep-CONT-1SG$_\alpha$-PRES$_\alpha$
    uru-a=ia
    bed-SG.N=LOC
    My head hurts and that’s why I’m sleeping in bed.

(493) uva **uusi-ro-epa**  ovi-toa  tapo urua=ia
    so  sleep-3SG.M$_\beta$-RP$_\alpha$ offspring-SG.M also  bed=LOC
    So he slept with his son in bed. [Firchow and Akoitai (1974:3,1)]

Although the majority of monovalent verbs show $\alpha$ agreement, there is also a class of monovalent verbs that show $\beta$ agreement. These verb stems are fewer in number than the $\alpha$ monovalent verbs. A few of these are listed in Table 9.4 (see §B for a complete inventory).
9.2 Monovalent One-Place Predicates

<table>
<thead>
<tr>
<th>Stem</th>
<th>Gloss</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>aata</td>
<td>swim</td>
<td>generic</td>
</tr>
<tr>
<td>gau</td>
<td>cry</td>
<td></td>
</tr>
<tr>
<td>ikau</td>
<td>run, speed</td>
<td></td>
</tr>
<tr>
<td>kapere</td>
<td>swim</td>
<td>on the water’s surface</td>
</tr>
<tr>
<td>opoko</td>
<td>defecate</td>
<td>generic term used for humans</td>
</tr>
<tr>
<td>puu</td>
<td>fart</td>
<td></td>
</tr>
<tr>
<td>roko</td>
<td>go inside</td>
<td></td>
</tr>
<tr>
<td>viviko</td>
<td>urinate</td>
<td></td>
</tr>
<tr>
<td>voka</td>
<td>walk</td>
<td></td>
</tr>
<tr>
<td>vusi</td>
<td>rush out, erupt</td>
<td></td>
</tr>
</tbody>
</table>

Table 9.4 Monovalent Verb Roots with $\beta$ Subject Agreement

The verbs in Table 9.4 show the same form of agreement—namely, $\beta$, as illustrated for the verb root *gau* ‘cry’ in (494) and (495).

(494) kuuo iria $\text{gau-pa-e-veira}$ vokiaro

owl PPRO.REL.3.SG. cry-CONT-3SG.$\beta$-HAB night
The owl, he cries at night.

(495) avi ua=ia kokai kare $\text{gau-i-vo}$

light CLASS=LOC chicken PL cry-3PL.$\beta$-IP.$\beta$
In the morning the roosters cried out.

Monovalent verb roots cannot take a direct object without recourse to derivational morphology. This is true for those that show $\alpha$ agreement as well as those that show $\beta$ agreement. For example, the monovalent verb roots *uusi* ‘sleep’ and *gau* ‘cry’ can only take a direct object using the morphological causative -pie (see §10.1.2 for more detailed discussion). This is illustrated for *uusi* ‘sleep’ in (496) and for *gau* ‘cry’ in (497).

(496) Rua sikeo $\text{uusi-pie-pa-e-voi}$

Rua infant sleep-CAUS-CONT-3SG.$\beta$-PRES.$\beta$
Rua put the child to sleep.

(497) kakae-to oaa $\text{gau-pie-pa-ri-veira}$ rutu rera=va

child-SG.M PPRO.1.SG cry-CAUS-CONT-2SG.$\beta$-HAB very PRO.3.SG.M=COM
ugaa-pa-oro
kiss-CONT-DEP.SIM
You make our child cry by kissing him. [Firchow and Akoitai (1974:3,9)]
9.2.2 Constituent Order

Monovalent verbs show the same possibilities of constituent ordering regardless of their classification as $\alpha$ or $\beta$. The subject of a $\alpha$ monovalent verb occurs either before the verb, as in (498a), or after the verb, as in (498b).

(498)  a. oira-to $\text{uusi-ro-epa}$
       man-SG.M sleep-3SG.M$\alpha$-RP$\alpha$
       The man went to sleep.

       b. $\text{uusi-ro-epa}$ oira-to
       sleep-3SG.M$\alpha$-RP$\alpha$ man-SG.M
       The man went to sleep.

The subject of a $\beta$ monovalent verb occurs either before the verb, as in (499a), or after the verb, as in (499b).

(499)  a. $\text{Patiriki gau-pa-re-voi}$
       Patrick cry-CONT-3SG.M$\beta$-PRES$\beta$
       Patrick is crying.

       b. $\text{gau-pa-re-voi}$ $\text{Patiriki}$
       cry-CONT-3SG.M$\beta$-PRES$\beta$ Patrick
       Patrick is crying.

9.3 Monovalent Two-Place Predicates

Monovalent two-place predicates are verb roots whose meaning involves two participants (i.e., have two actants in their logical structure) but take only a single core argument. The two participants of these verb roots are realized as a subject and as an oblique argument marked by one of the role-marking postpositional enclitics described in §5.2.7. A given verb root selects for a particular postposition, and the choice of postposition is not fully predictable (see §9.3.3). For example, the verb root $\text{tara}$ ‘seek, find, search for, look for’ selects for $=\text{re}$, as illustrated in (500), and its oblique argument cannot be marked by another enclitic, such as $=\text{ia}$, $=\text{va}$, or $=\text{pa}$, as illustrated by the ungrammaticality of (501a) through (501c). (It is possible for the oblique marking to be absent in the case of noun incorporation—see §10.2.2.)

(500)  $\text{Patriki sigo-a=re}$ $\text{tara-pa-re-vo}$
        Patrick knife-SG.N=ALL look_for-CONT-3SG.M$\beta$-IP$\beta$
        Patrick looked for (his) knife.
(501) a. * Patriki sigo-a=ia tara-pa-re-vo
   b. * Patriki sigo-a=va tara-pa-re-vo
   c. * Patriki sigo-a=pa tara-pa-re-vo

Patrick knife-SG.N=COM look_for-CONT-3SG.Mβ-IPβ
Patrick looked for (his) knife.

A few roots permit more than one type of marking for their oblique arguments (as already seen for reoreo ‘talk’ in §9.1). For example, Firchow (1984) furnishes two possible forms of oblique marking for the verb root tagava ‘salute’, either the postpositional enclitic =re or =va, as in (502).³

(502) a. Kukurai keapi=va tagava-re-voi
    Kukurai keap=COM salute-3SG.Mβ-PRESβ
    Kukurai salutes the keap.

b. Kukurai keapi=re tagava-re-voi
    Kukurai keap=ALL salute-3SG.Mβ-PRESβ
    Kukurai salutes the keap.

Every day the women always sing all the songs soprano.

In some cases, it is not clear whether an oblique constituent associated with a verb represents a subcategorized argument, rather than an adjunct. For example, the verb root voki ‘get dark’ normally takes only a single argument, as in (504), but it also occurs with a second argument, as in (505).

(504) Rasii roro-pa-va ruku-e-voi uvare voki-ei
    Rasii light-DERIV-SG.F light-3SG.Fβ-PRESβ because night-PRESα
    Rasii lit the lamp because it was getting dark.

³The word keapi a borrowing into Rotokas from Tok Pisin, where the word kiap refers to the patrol officers who served as travelling police officers during the period when Papua New Guinea was under Australian administration (Sinclair, 1981; Kituai, 1998).
(505) *uva voki-epa vaiterei=re*
   and night-IP PRO.3.DL=ALL
   The night fell on the two of them. [Firchow (1984)]

### 9.3.1 Agreement

This class of verbs is not uniform with respect to verbal inflection. Although most of these verbs show α inflection, there are also quite a few that show β inflection.

<table>
<thead>
<tr>
<th>Inflection</th>
<th>Verb Stem</th>
<th>Oblique Marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>α</td>
<td>vari ‘threaten’</td>
<td>-re</td>
</tr>
<tr>
<td></td>
<td>roro ‘suckle on’</td>
<td>-ia</td>
</tr>
<tr>
<td></td>
<td>kaureo ‘disagree with’</td>
<td>-va</td>
</tr>
<tr>
<td></td>
<td>taea ‘deceive’</td>
<td>-pa</td>
</tr>
<tr>
<td>β</td>
<td>tara ‘seek, find, look for, search for’</td>
<td>-re</td>
</tr>
<tr>
<td></td>
<td>oruo ‘diligent about’</td>
<td>-ia</td>
</tr>
<tr>
<td></td>
<td>veku ‘bark at’</td>
<td>-va</td>
</tr>
<tr>
<td></td>
<td>vato ‘respect, honor’</td>
<td>-pa</td>
</tr>
</tbody>
</table>

**α-Agreement** Monovalent two-place predicate verbs that show α agreement are exemplified in (506) through (509). Each verb stem that takes an oblique argument selects for a specific type of postposition, and all four enclitics are attested: =re in (506), =ia in (507), =va in (508), and =pa in (509).

(506) *ragai=re vari-ro-i torara=ia*
   PPRO.1.SG=ALL threaten-3SG.M-α-PRES.α axe=LOC
   He threatens me with an axe.

(507) *kakae-to aakova=ia roro-pa-ro-i*
   child-SG.M mother-SG.F=LOC suckle-CONT-3SG.M-α-PRES.α
   The child is suckling on his mother.

(508) *riro-vira oisoa rera=va kaureo-pa-a-ve*
   big-ADV always PPRO.3.SG.M=ABL disagree-CONT-3PL-α-SUB
   They were always in much disagreement with him.

(509) *voea=pa taea-ro-epa*
   PPRO.3.PL=BEN accuse-3SG.M-α-RP.α
   He accused them.
Valency in Rotokas

9.3 Monovalent Two-Place Predicates

β-Agreement Monovalent two-place predicate verbs that show β agreement are exemplified in (510) through (513). Each verb stem that takes an oblique argument selects for a specific case-marking enclitic, and all four enclitics are attested: =re in (510), =ia in (511), =va in (512), and =pa in (513).

(510) Agiosi aako-va=re tara-pa-e-vo
Agiosi mother-SG.F=ALL seek-CONT-3SG.F β-IP β
Agiosi looked for mother.

(511) rera vo-kovo-aro=ia oruo-pa-re
RPRO.3.SG.M SPEC-work-POSS=LOC be_satisfied-CONT-3SG.M β
He is satisfied with his work.

(512) kakau kare ragai=va veku-i-vo eisi Sikoriara
dog FFP PPRO.1.SG-COM bark-3PL β-IP β LOC Sikoriara
Dogs bark at me in Sikoriara.

(513) ragai vato-pa-a-veira ragai taataa-irara-aro=pa
RPRO.1.SG respect-1 SG β-HAB RPRO.1.SG brother-HUM.PL-POSS=BEN
I always respect my brothers.

9.3.2 Constituent Order

The oblique arguments of monovalent two-place predicate verbs are fairly free with respect to constituent ordering (regardless of their form of verbal inflection), and in this respect they differ significantly from direct objects, whose constituent order is fixed. (Direct objects can be extracted from their fixed position in the clause, but only through specific grammatical devices—see §7.2.2.)

The oblique arguments of α verb roots are fairly free with respect to constituent ordering, occurring in a wide variety of positions, although an immediately preverbal position is the most common. For example, the oblique argument of kasipu ‘angry’ occurs before the verb in (514) and after the verb in (515).

(514) Raratuiri oirara=re kasipu-ro-erao uware aue-ro
Raratuiri people=ALL angry-3SG.M β-HAB because DEM.????-PL.CL
poko-pie-pa-i-veira
explode-CAUS-CONT-3PL β-HAB
Raratuiri is angry at everyone because they blew things up.
The oblique arguments of \( \beta \) verb stems are also fairly free with respect to constituent ordering, occurring in a wide variety of positions, although an immediately preverbal position is the most common. For example, the oblique argument of \( \textit{koroto} \) ‘meet’ occurs before the verb in (516) and after the verb in (517).

\[
\begin{align*}
(516) & \quad \text{ragai} \quad \text{ava-pa-ra-i} \\
& \quad \text{Pita}=\text{re} \quad \text{koroto-sia} \quad \text{eisi} \quad \text{raivaro} \\
& \quad \text{PPRO.1.SG go-CONT-1SG}\_\alpha-\text{PRES}\_\alpha \quad \text{Peter}=\text{ALL meet-DEP.SEC LOC road} \\
& \quad \text{I’m going to meet Peter on the road.}
\end{align*}
\]

\[
\begin{align*}
(517) & \quad \textit{vii} \quad \text{koroto-pa-ri} \\
& \quad \text{Sera}=\text{re} \\
& \quad \text{2.SG meet.with-CONT-2SG}\_\beta \quad \text{Sera}=\text{ALL} \\
& \quad \text{You’re going to meet with Sera.}
\end{align*}
\]

### 9.3.3 Oblique Marking

Although verb roots that select an oblique argument are mixed with respect to their form of agreement (i.e., some show \( \alpha \) agreement while others show \( \beta \)), the form of agreement does not appear to be predictable simply on the basis of the form of oblique marking. In other words, verb roots with \( \alpha \) agreement co-occur with the same set of oblique markers as verb roots with \( \beta \) agreement. In the following sections, each of the four postpositional enclitics that verb roots select for will be examined and shown to be completely orthogonal to verb root agreement classification, as illustrated in Table 9.5.

<table>
<thead>
<tr>
<th>Verbal Agreement</th>
<th>Form of Oblique Marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class ( \alpha )</td>
<td>=\text{ia} \quad =\text{va} \quad =\text{re} \quad =\text{pa}</td>
</tr>
<tr>
<td>Class ( \beta )</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
</tbody>
</table>

Table 9.5 Verbal Agreement and Oblique Marking in Monovalent Verb Roots

The choice of postpositional enclitic is not obviously predictable on semantic grounds. If the choice of postpositional enclitic were made on purely semantic grounds, one might expect
similar roles in verbs with similar meanings to select the same postpositional enclitic, but this is not always the case. For example, the verb root koroto ‘meet’ selects the postpositional enclitic =re while aivaro ‘meet’ selects the postpositional enclitic =va, despite having very similar meanings.

9.3.3.1 Verbs that Select the Enclitic =ia

A number of verb roots that take an oblique argument select for the postpositional enclitic =ia. A few representative examples of these verbs are listed in Table 9.6.

<table>
<thead>
<tr>
<th>Class</th>
<th>Verb Stem</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>α</td>
<td>erava</td>
<td>“sing”</td>
</tr>
<tr>
<td></td>
<td>kavorou</td>
<td>“covet, keep something intended for another, intercept”</td>
</tr>
<tr>
<td></td>
<td>vuipa</td>
<td>“think, visualize something continually”</td>
</tr>
<tr>
<td>β</td>
<td>aveavero</td>
<td>“incite to anger”</td>
</tr>
<tr>
<td></td>
<td>kuga</td>
<td>“bump into, nudge”</td>
</tr>
<tr>
<td></td>
<td>tu</td>
<td>“fasten, strap on the back”</td>
</tr>
</tbody>
</table>

Table 9.6 Verbs that Select the Postpositional Enclitic =ia

Some of the verbs that select =ia show α subject agreement, as illustrated for the verb root kavorou ‘keep, hold on to’ in (518) and the verb root vui ‘think about, visualize’ in (519).

(518) eake=re ragai va-aro=ia kavorou-u-ei monia
what=ALL PPRO.1.SG PPRO.3.SG.N-POSS=LOC keep-2SGα-PRESα money
Why are you keeping my money? [Firchow (1984)]

(519) rera=ia vui-pa-u
PRO.3.SG.M=LOC visualize-CONT-2SGα
You are constantly visualizing him thinking about him. [Firchow (1984)]

Other verbs that select =ia show β subject agreement, as illustrated for the verb root kuga ‘bump into’ in (520) and the verb root tuu ‘fasten’ in (521).

(520) vii=ia kuga-pa-a-voi
PRO.2.SG=LOC bump_into-CONT-1SGβ-PRESβ
I am bumping into you. [Firchow (1984)]

(521) ora-vaiterei=ia garo-a=va tuu-si-va
RR-PRO.3.DL.M=LOC rattan_vine-3DL.M-RPβ
The two of them fastened themselves together with rattan vine. [Firchow (1984)]
9.3.3.2 Verbs that Select the Enclitic =re

A number of verb roots that take an oblique argument select for the postpositional enclitic =re. A few representative examples of these verbs are listed in Table 9.7.

<table>
<thead>
<tr>
<th>Class</th>
<th>Verb</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>α</td>
<td>aite</td>
<td>“call father”</td>
</tr>
<tr>
<td></td>
<td>isiva</td>
<td>“turn back towards”</td>
</tr>
<tr>
<td></td>
<td>kasipu</td>
<td>“be angry”</td>
</tr>
<tr>
<td>β</td>
<td>keerapa</td>
<td>“signal for meeting”</td>
</tr>
<tr>
<td></td>
<td>koroto</td>
<td>“meet together”</td>
</tr>
<tr>
<td></td>
<td>tara</td>
<td>“look for, search for”</td>
</tr>
</tbody>
</table>

Table 9.7 Verbs that Select the Postpositional Enclitic =re

Some of the verbs that select =ia show α subject agreement, as illustrated for the verb root kasipu ‘be angry with’ in (522) and the verb root isiva ‘turn back towards’ in (523).

(522) Areipiri kasipu-pa-ro-i oira-ra=re ora riako-ra
Areipiri be_anger-CONT-3SG.M_α-PRES_α man-HUM.PL=ALL and woman-HUM.PL=ALL
Areipiri is angry at the men and women.

(523) ragai=re isiva-u ava-oro
PPRO.1.SG=ALL turn_back-2SG_α go-DEP.SIM
You turn your back towards me as you go.

Other verbs that select =re show β subject agreement, as illustrated for the verb root uvui ‘measure’ in (524) and the verb root tara ‘seek, look for, find’ in (525).

(524) uva uvui-si-epa kovo pitupitu-aro=re
and measure-3DL.M-RP_α work custom-POSS=ALL
The two of them measured the work. [Firchow74Sect1Text07.txt:11]

(525) Agiosi aako-va=re tara-pa-e-vo
Agiosi mother-SG.F=ALL look_for-CONT-3SG.F_β-IP_β
Agiosi is looking for (his) mother.

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9.3.3.3 Verbs that Select the Enclitic =pa

A number of verb roots that take an oblique argument select for the postpositional enclitic =pa. A few representative examples of these verbs are listed in Table 9.8.

<table>
<thead>
<tr>
<th>Class</th>
<th>Verb</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>α</td>
<td>agigio</td>
<td>“respect”</td>
</tr>
<tr>
<td></td>
<td>koruou</td>
<td>“sacrifice”</td>
</tr>
<tr>
<td></td>
<td>tauto</td>
<td>“offer in ceremony”</td>
</tr>
<tr>
<td>β</td>
<td>kaviko</td>
<td>“love intensely”</td>
</tr>
<tr>
<td></td>
<td>vato</td>
<td>“respect (treat in the appropriate way according to custom)”</td>
</tr>
</tbody>
</table>

Table 9.8 Verb Roots that Select the Postpositional Enclitic =pa

Some of the verbs that select the case marker =pa show α subject agreement, as illustrated for the verb root agigio ‘respect’ in (526) and the verb root avivike ‘honor’ in (527).

(526) oira-ra putu pautoa=pa agigio-pa-a-veira

man-PL.N very God=Ben respect-CONT-3PL_α-HAB

Everyone respects God.

(527) tuariri-pa-irara oisoa tugara kare=pa koruou-pa-a-ve aue=ia koie

long ago-DERIV always FP=Ben sacrifice-CONT-3PL_α-SUB CONN=LOC pig

People of long ago would always sacrifice to the bush spirits with pigs.

Other verbs that select the case marker =pa show β subject agreement, as illustrated for the verb root kaviko ‘to love’ in (528) and the verb root vato ‘to respect, pay honor’ in (529).4

(528) ira ovii-toa=pa oisoa kaviko-irao-pa-re-ve

RPRO.3.SG.M offspring-SG.M=Ben always love-INTEN-CONT-3SG.β-SUB

He was always intensely loving his son. [Firchow (1984)]

(529) eera=pa avue vato-pa-a-veira uva viapau rera

DEM.3.SG.M=Ben in-law respect-CONT-1SG.β-HAB and NEG PRO.3.SG.M

vaisi-pa-a

call-CONT-1SG.β

I always respect my in-law here and I don’t say his name.

4There is a name avoidance taboo in Rotokas culture which applies to in-laws as well as cross-sex siblings. The cross-sex sibling taboo is even stronger, since it militates against usage of the second person singular form, requiring substitution of the second personal plural.
9.3.3.4 Verbs that Select the Enclitic =\textit{va}

A number of verb roots that take an oblique argument select for the postpositional enclitic =\textit{va}. A few representative examples of these verbs are listed in Table 9.9.

<table>
<thead>
<tr>
<th>Class</th>
<th>Verb Stem</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\alpha)</td>
<td>\textit{kaureo}</td>
<td>“contradict, disagree, be stubborn or rebellious”</td>
</tr>
<tr>
<td></td>
<td>\textit{keri}</td>
<td>“make enemies with, reject friendship”</td>
</tr>
<tr>
<td></td>
<td>\textit{oive}</td>
<td>“shout, yodel, yell”</td>
</tr>
<tr>
<td>(\beta)</td>
<td>\textit{aivaro}</td>
<td>“meet with, bump into”</td>
</tr>
<tr>
<td></td>
<td>\textit{kuara}</td>
<td>“yell at”</td>
</tr>
<tr>
<td></td>
<td>\textit{veku}</td>
<td>“bark at”</td>
</tr>
</tbody>
</table>

Table 9.9 Verb Roots that Select for the Postpositional Enclitic =\textit{va}

Some of the verbs that select the case marker =\textit{va} show \(\alpha\) subject agreement, as illustrated for the verb root \textit{kaureo} ‘be stubborn or arrogant’ in (530) and the verb root \textit{oive} ‘shout to’ in (531).

\[(530)\] \textit{riro-vira oisoa rera=va kaureo-pa-a-ve} \\
\text{big-ADV always PPRO.3.SG.M=COM stubborn-CONT-3PL\(\alpha\)-SUB} \\
They were always so stubborn with him.

\[(531)\] \textit{Terita Salome=va oive-pa-ro-e} \\
\text{Terita Salome=COM yell-CONT-3SG.M\(\alpha\)-IP\(\beta\)} \\
Terita is yelling to Salome.

Some of the verbs that select the case marker =\textit{va} show \(\beta\) subject agreement, as illustrated for the verb root \textit{aivaro} ‘meet, bump into’ in (576) and the verb root \textit{veku} ‘bark at’ in (533).

\[(532)\] \textit{Ruri=va aivaro-a-vo eisi raivaro} \\
\text{Ruri=COM meet-1SG\(\beta\)-IP\(\beta\) LOC road} \\
I met Ruri on the road.

\[(533)\] \textit{kakau kare ragai=va veku-i-vo eisi Sikoriara} \\
\text{dog FP PPRO.1.SG=COM bark-3PL\(\beta\)-IP\(\beta\) LOC Sikoriara} \\
Dogs bark at me in Sikoriara.
9.4 Bivalent Two-Place Predicates

Bivalent verb stems take two core arguments, a subject and an object, both of which are realized as bare nouns or pronouns (i.e., they do not take oblique marking). The bivalent verb stems can be further subdivided into two subclasses on semantic grounds: two-place predicates and three-place predicates. The vast majority of bivalent verbs are two-place predicates (as opposed to three-place predicates). Their agreement pattern and constituent order will be discussed in turn.

9.4.1 Agreement

Bivalent verb roots invariably show $\beta$ inflection, as illustrated by (534) and (535).

(534) $\text{vii upo-pa-a-voi}$

$\text{PRO.2.SG strike-CONT-1.SG$\beta$-PRES$\beta$}$

“I’m going to hit you. [Firchow74Sect3Text02.txt:21]

(535) $\text{uva rakoru upo-re-voi-va oira-to eira raga rasi-to}$

so snake strike-3.SG.$\beta$-PRES$\beta$-RP$\beta$ person-SG.M DEM.MED.SG.F only ground-SG.M

$\text{vuripie-e-va}$

ruin-3.SG.F$\beta$-RP$\beta$

So that man killed the snake that screwed up the ground. [FirchowSect3Text09.txt:116]

9.4.2 Constituent Order

There are two permissible constituent orders for a transitive clause. The canonical constituent order is AOV, as illustrated in (536), but postverbal subjects are relatively common, giving rise to OVA constituent order, as illustrated in (537).

(536) $\text{oira-to riako-va upo-re-vo}$

man-SG.M woman-SG.F hit-3.SG.$\beta$-IP$\beta$

The man hit the woman.

(537) $\text{riako-va upo-re-vo oira-to}$

woman-SG.F hit-3.SG.$\beta$-IP$\beta$ man-SG.M

The man hit the woman.
9.5 Three-Place Predicates: Bivalent or Trivalent?

There are a number of verbs that are generally characterized as ditransitives in the typological literature (??), such as “give” or “put”.

These verbs do subcategorize an oblique argument. The verb root vate ‘give’ select for an oblique argument marked by the benactive, as in (538), while the verb root tovo ‘put’ selects for an oblique argument marked by the locative, as in (539).

(538) Rosiovi ira akuku-vira kokai vate-re-vo ragai=pa
Rosiovi RPRO.3.SG.M free-ADV chicken give-3SG.Mβ-IPβ PRO.1.SG=BEN
Rosiovi gave me a chicken for free.

(539) Savia veeta tou pokö-pie-e-voi uvare vo-tou tovo-e-voi
Savia bamboo CLF explode-CAUS-3SG.Fβ-PRESβ because SPEC-CLF put-3SG.Fβ-PRESβ

        tuitui kasi sovara=ia
        fire inside=LOC
Savia blow up the bamboo because he put it in the fire.

This oblique argument of these three-place predicates is optional, as illustrated for the verb root vate ‘give’ in (??) and for the verb root tovo ‘put’ in (541).

(540) ravireo riro-a rutu aau-a vate-pa-re
sun big-SG.N very light-SG.N give-CONT-3SG.Mβ
The sun gives strong light.

(541) kaveakapie-vira aveke tovo-i-vo uva kove-o-e
insecure-ADV stone put--IPβ and fall--IPα
They placed the stone insecurely and it fell down.

The three-place predicate vate ‘give’ potentially takes three arguments: the giver, the gift, and the recipient. The number of core arguments associated with three-place predicates is debatable, at least in the case of vate ‘give’. The recipient is optional, as shown by sentences such as (542) or (543).

(542) ravireo riro-a rutu aau-a vate-pa-re-voi
sun big-SG.N very --SG.N give-CONT-3SG.Mβ-PRESβ
The sun gives strong light.
9.5 Three-Place Predicates: Bivalent or Trivalent?

(543)  
\[ \text{Tatu gare-pa-visivi moni-a vate-re-voi} \]
\[ \text{Tatu small-\text{DERIV-ADV} money-SG.N give-3SG.M_\beta-PRES_\beta} \]
\[ \text{Tatu is giving a small amount of money.} \]

The optionality of the recipient suggests that the recipient is not a core argument and that there is no need to posit the existence of trivalent verb roots in Rotokas. On this assumption, three-place predicates would represent a subtype of bivalent verb stems in Rotokas, in keeping with the observation of (Dixon, 1994:???): “All languages distinguish between clauses that involve a verb and one core noun phrase (intransitive clauses) and those that involve a verb and two or more core NPs (transitive clauses, including ditransitive as a subtype).” There are two construction types associated with three-place predicate verbs: the double object construction, discussed in §9.5.4, and the indirect object construction, discussed in §9.5.3.

9.5.1 Agreement

The form of agreement found on trivalent verb stems is \( \beta \)-agreement, the same type found on bivalent stems with a direct object, as can be seen from (544) and (545).

(544)  
\[ \text{sirao-vira rutu uvare aako upo-ri-voi} \]
\[ \text{pity-ADV very because mother strike-2SG_\beta-PRES_\beta} \]
\[ \text{Sadly, you killed my mother. [=(??)]} \]

(545)  
\[ \text{sirao-vira rutu uvare viapau ragai=pa kakae-toa-voi} \]
\[ \text{pity-ADV very because NEG PPRO.1.SG=BEN child-SG.M-INDEF} \]
\[ \text{vate-ri-veira give-CONT-2SG_\beta-HAB} \]
\[ \text{Sadly, you have not given me children. (Behold, thou hast given me no offspring.)} \]
\[ \text{[Genesis 15:3]} \]

9.5.2 Constituent Order

The canonical three-place predicate is \textit{vate} ‘give’, which shows two patterns of constituent ordering, depending on whether or not the recipient is case-marked. We will simply refer to these two patterns as constructions and set aside temporarily the question of which is basic and which derived.

For ease of discussion, we will use describe the arguments of a trivalent predicate in terms of their semantic roles in a dative verb (e.g., \textit{give}): donor (the agent, the giver), the gift (the
person or thing given), and recipient (the person or thing the theme is given to) (Haspelmath, ms?).

9.5.3 Indirect Object Construction

When the recipient is case-marked with the suffix -pa, constituent order is more flexible. The theme occurs in its usual fixed preverbal position, as shown by the grammaticality of (546), where the theme occurs immediately before the verb, and the ungrammaticality of (547), where the theme occurs immediately following the verb.

(546) *Raratuiri kaakau=pa opita isi vate-re-vo
     name dog=ABL coconut CLASS give-3SG.M\beta-IP\beta
     Raratuiri gave a coconut to the dog.

(547) Raratuiri kaakau=pa vate-re-vo opita isi
     name dog=ABL give-3SG.M\beta-IP\beta coconut CLASS
     Raratuiri gave a coconut to the dog.

There is considerable flexibility in the position of the recipient, as shown by the grammaticality of the alternative constituent orderings found in (548) through (550). (Although these constituent orders are deemed grammatical by speakers, they are infrequent and texts show few departures from the order found in (546).)

(548) kaakau=pa Raratuiri opita isi vate-re-vo
     dog=ABL name coconut CLASS give-3SG.M\beta-IP\beta
     Raratuiri gave a coconut to the dog.

(549) Raratuiri opita isi kaakau=pa vate-re-vo
     name coconut CLASS dog=ABL give-3SG.M\beta-IP\beta
     Raratuiri gave a coconut to the dog.

(550) Raratuiri opita isi vate-re-vo kaakau=pa
     name coconut CLASS give-3SG.M\beta-IP\beta dog=ABL
     Raratuiri gave a coconut to the dog.

The rightward displacement of the subject is possible, as in (551), but the occurrence of a postverbal theme remains ungrammatical with rightward displacement of A, as in (552) and (553).
(551) kaakau=pa opita isi vate-re-vo Raratuiri
dog=ABL coconut CLASS give-3SG.M_{β}-IP_{β} name
Raratuiri gave me a coconut.

(552) * kaakau=pa vate-re-vo opita isi Raratuiri
dog=ABL give-3SG.M_{β}-IP_{β} coconut CLASS name
Raratuiri gave a coconut to the dog.

(553) * vate-re-vo kaakau=pa opita isi Raratuiri
give-3SG.M_{β}-IP_{β} dog=ABL coconut CLASS name
Raratuiri gave a coconut to the dog.

9.5.4 Double Object Construction

When the recipient appears bare (i.e., without oblique marking), it occupies the position normally held by the object, and the theme occurs postverbally, as illustrated by (554) and (555).

(554) Raratuiri ragai vate-re-vo opita isi
     name PRO.1.SG give-3SG.M_{β}-IP_{β} coconut CLASS
Raratuiri gave me a coconut.

(555) uva aako-va vate-e-va rera ovii-to
     so mother-SG.F give-3SG.F_{β}-RP_{β} PRO.PER.3.SG.M son-SG.M
He gave the boy to his mother. [FirchowSect3Text09.txt:29]

Elicitation confirms that the theme cannot occur preverbally, as in (556).

(556) * Raratuiri ragai opita isi vate-re-vo
     name PRO.1.SG coconut CLASS give-3SG.M_{β}-IP_{β}
Raratuiri gave me a coconut.

The rightward displacement of the subject is possible with three-place predicates, as in (557). A preverbal recipient and theme remain ungrammatical with rightward displacement of the subject, as illustrated by (558).

(557) ragai vate-re-vo opita isi Raratuiri
     PRO.1.SG give-3SG.M_{β}-IP_{β} coconut CLASS name
Raratuiri gave me a coconut.

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There is mixed evidence with respect to the status of the postverbal theme. Although the lack of oblique marking suggests that it is a core argument, there is evidence in favor of its oblique status—see §10.1.2 on three-place predicates derived from two-place predicates through causativization.

### 9.6 Conclusion

In this chapter, the valency of verb roots in Rotokas was overviewed. On the basis of a number of cross-cutting distinctions (the number of participants, the number of core arguments, and the form of verbal inflection), six verb classes were recognized. These five classes are the product of the interaction between these various factors. The relationship between predicate type (i.e., the number of actants/participants in a verb’s logical structure) and the number of core arguments (i.e., the number of core arguments a verb requires) is summarized in Table 9.10.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Core Arguments</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>✓</td>
<td>✓</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>–</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Table 9.10 Relationship Between Predicate Type and Valency*

Table 9.10 shows that the number of core arguments is only weakly predictable on the basis of the number of participants associated with a predicate. The number of core arguments is always less than or equal to the number of participants and there is very little evidence in favor of positing the existence of clauses involving more than two core arguments.

The relationship between valency and verbal inflection ($\alpha$ versus $\beta$) is summarized in Table 9.11.

<table>
<thead>
<tr>
<th>Core Arguments</th>
<th>Verbal Inflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$\alpha$</td>
</tr>
<tr>
<td>2</td>
<td>$\beta$</td>
</tr>
<tr>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

*Table 9.11 Relationship Between Valency and Verbal Inflection*
Table 9.11 shows that verbal inflection is partially predictable on the basis of the number of core arguments, but not necessarily vice-versa: if a verb takes two core arguments, it necessarily shows \( \beta \) inflection, but if a verb that shows \( \beta \) inflection, it does not necessarily take two core arguments.

The findings described in this chapter do not support the simple hypothesis put forward in the previous chapter that there is a one-to-one relationship between valency and verbal agreement. Verb roots that take two core arguments consistently shows \( \beta \) agreement whereas verb roots that take a single core argument are split: some show \( \alpha \) agreement while others show \( \beta \) agreement. The evidence from underived verb roots therefore rules out a one-to-one relationship, which leaves three possibilities for the mapping between grammatical roles and verbal agreement, as shown below in Table 9.12.

<table>
<thead>
<tr>
<th>Possible Configuration</th>
<th>Role</th>
<th>Inflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-to-One</td>
<td>S</td>
<td>( \alpha )</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>( \beta )</td>
</tr>
<tr>
<td>Split-S</td>
<td>S</td>
<td>( \alpha )</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>( \beta )</td>
</tr>
<tr>
<td>Split-A</td>
<td>S</td>
<td>( \alpha )</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>( \beta )</td>
</tr>
<tr>
<td>Many-to-Many</td>
<td>S</td>
<td>( \alpha )</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>( \beta )</td>
</tr>
</tbody>
</table>

Table 9.12 Grammatical Roles and Verb Inflection

Before attempting to formulate a generalization that correctly predicts the distribution of \( \alpha \) and \( \beta \) agreement on verbs, it is necessary to examine valency-changing operations—that is, the various mechanisms available in Rotokas for changing (or simply re-arranging) the default valency pattern of verb stems. The behavior of valency-changing derivations provide further evidence of a tight relationship between valency and verb classification, since valency-decreasing derivations typically derive \( \alpha \) verb stems whereas valency-increasing derivations typically derive \( \beta \) verb stems, but it also introduces a number of complexities that must be resolved before a comprehensive statement of the distribution of verbal inflection can be formulated.
9.6 Conclusion

Valency in Rotokas
In the previous chapter, the valency of verb roots in Rotokas was described and a number of different verb root classes were identified. It was established that verbal agreement is partially predictable from valency, in the sense that bivalent verb roots (which takes two core argument) uniformly show $\beta$ agreement. However, if a verb shows $\beta$ agreement, it will not necessarily be bivalent, since monovalent verbs (which take a single core argument) are split into two classes—those that take $\alpha$ agreement and those that take $\beta$ agreement.

In this chapter, we overview the devices for increasing or decreasing the default valency of verb roots. Valency-increasing derivations are discussed in §10.1 and valency-decreasing derivations are discussed in §10.2. Valency changing derivations provide little evidence of an underlying syntactic difference between $\alpha$ and $\beta$ monovalent verb roots, since the various valency-changing derivations are not sensitive to the distinction; however, they do provide additional evidence in favor of a tight relationship between valency and verbal inflection, since a decrease in valency is associated with $\alpha$ agreement and an increase in valency with $\beta$ agreement.

### 10.1 Valency-Increasing Derivations

There are two means of increasing the valency of verb roots in Rotokas: either through zero derivation in the case of labile verbs (§10.1.1) or through suffixation of -pie in the morphological causative construction (§10.1.2). In both cases, the derived bivalent verb stem invariably shows $\beta$ agreement.
10.1 Valency-Increasing Derivations

10.1.1 Labile Verb Roots

The majority of verb roots show only a single pattern of valency—that is, a given verb root will show $\alpha$ inflection or $\beta$ inflection, but not both. However, a minority of verb roots are capable of functioning either as monovalent $\alpha$ stems or as bivalent $\beta$ verb stems. Such verbs will be labelled “labile” here. Although the term ‘ambitransitive’ is more commonly used to describe such verbs, the term is eschewed here due to the insistence in §8.3 on a terminological distinction between transitivity and valency.

Labile verbs are of two types: those where the S of the monovalent verb corresponds to the A of the bivalent verb and those where the S of the monovalent verb corresponds to the O of the bivalent verb. Following Dixon (1994), the former will be referred to as $S=\alpha$ verbs and the latter as $S=\beta$ verbs.

The verb stem kavau ‘be born/give birth’ is representative of the $S=\beta$ variety, as illustrated in (559), where it takes only one core argument and shows $\alpha$ agreement, and in (560), where it takes two core arguments and shows $\beta$ agreement.

(559) uva riro tarai-irara aaviko keke-i-va ovusia Jisu kavau-ro-epa

and big know-HUM.PL star look.at-3PL.$\beta$-RP.$\beta$ while Jisu be-born-3SG.M.$\alpha$-RP.$\alpha$

The wisemen looked at the star when Jesus was born.

(560) Kivui kaakau kare kavau-e-voi tupereoi-vira

Kivui dog FFP give_birth-3SG.F.$\beta$-PRES.$\beta$ one_after_another-ADV

Kivui gave birth to puppies one after another.

The verb stem sisiu ‘wash, bathe’ is representative of the $S=\alpha$ variety, as illustrated by (561), where it takes only one core argument and shows $\alpha$ agreement, and (562), where it takes two core arguments and shows $\beta$ agreement.

(561) aavu-va gapu-vira sisiu-pa-o-i eisi Ivitu

grandparent-SG.F naked-ADV wash-CONT-3SG.F.$\alpha$-PRES.$\alpha$ LOC Ivitu

Grandmother is bathing naked in the river Ivitu.

(562) riako-va kakae-to sisiu-pa-e-voi uukovi=ia

woman-SG.F child-SG.M wash-CONT-3SG.F.$\beta$-PRES.$\beta$ water=LOC

The woman is washing the child in the river.

Table 10.1 provides a partial listing of labile verb roots in Rotokas, broken down in terms of the distinction between $S=\alpha$ and $S=\beta$. Verbs belonging to the $S=\beta$ type predominate.
The general rule is for these verbs to show $\alpha$ agreement when they behave as monovalent verb stems and to show $\beta$ agreement when they behave as bivalent verb stems. There is, however, at least one systematic class of exceptions, and these are verbs of perception. For example, the verb root *vura* ‘look, see’ is labile, but consistently shows $\beta$ agreement. In other words, as we would expect, it shows $\beta$ agreement when it occurs with two core arguments, as in (563) and (564).

(563)  
ora-rvu-ro-e  uvare  rakoru  vura-re-vo  
RR-jump-3SG.M$_\alpha$-IP$_\alpha$ because snake see-3SG.M$_\beta$-IP$_\beta$  
He jumped because he saw the snake.

(564)  
tuuta  vura-pa-a-voi  poori-vira  oa  tovo-re-vo  Vaisiri  
post  look-at-CONT-1SG$_\beta$-PRES$_\beta$ crooked-ADV RPRO.3.SG.N place-3SG.M$_\beta$-IP$_\beta$ Vaisiri  
va=ia  kepa  pura-sia  
PRO.3.SG.N=LOC house make-DEP.SEQ  
I am looking at the post that crookedly Vaisiri put up to make the house.
However, *vura* also shows $\beta$ agreement when it occurs with a single core argument, as in (565) and (566).

(565) \textit{kaaki-to katai-toa iava osirei-to vura-pa-re}  
\hspace{1cm} one\_eye-SG.M one-SG.M POST eye-SG.M see-CONT-3SG.M$_{\beta}$  
A one-eyed man sees out of one eye.

(566) \textit{voosi-to vearo-pie-re-va Jisu voari tuariri oa iava}  
\hspace{1cm} blind-SG.M good-CAUS-3SG.M$_{\beta}$-RP$_{\beta}$ Jesus long ago \textit{vura-re-va}  
\hspace{1cm} see-3SG.M$_{\beta}$-RP$_{\beta}$  
Jesus healed a blind man long ago and he could see.

This appears to be a property of verbs of perception, to the extent that it is also true of the verb roots *uvu* ‘hear, smell’ and *siovo* ‘feel’, which are also labile but uniformly show $\beta$ agreement. For example, the verb root *uvu* ‘hear, smell’ functions as a monovalent verb stem in (567) and as a bivalent verb stem in (568), but shows $\beta$ agreement in both cases.

(567) \textit{vii-a kaureo-to viapau uvu-pa-ri-veira}  
\hspace{1cm} PRO.2.SG-SUB stubborn-SG.M NEG hear-CONT-2SG$_{\beta}$-HAB  
You’re stubborn, you don’t listen.

(568) \textit{pokopoko-ara uvu-pa-a-vo uvare Patriki pitokava}  
\hspace{1cm} explode.RDP-PL.N hear-CONT-1SG$_{\beta}$-IP$_{\beta}$ because Patrick saucepan \textit{ragiragi-pa-re-vo}  
\hspace{1cm} beat.RDP-CONT-3SG.M$_{\beta}$-IP$_{\beta}$  
I heard the banging because Patrick beat repeatedly on the saucepan.

### 10.1.2 Morphological Causative

The causative construction has received a great deal of attention within morphosyntactic typology and has been the subject of numerous studies (Dixon, 2000; Comrie, 1975; Shibatani, 1976; Comrie, 1976, 1985, 1989; Song, 1996). The prototypical causative construction conforms to the definition provided by Dixon and Aikhenvald (2000) in (569).

(569)  
- applies to an underlying intransitive [monovalent] clause and forms a derived transitive [bivalent] clause;  
- the argument in underlying S function goes into O function in the causative;
Valency-Changing Derivations

10.1 Valency-Increasing Derivations

- a new argument is introduced, in A function;
- there is some explicit formal marking of the causative construction

Rotokas has a morphological causative construction that fits the profile provided in (569) to the extent that:

- it applies to underlying monotransitive verb root to derive a bivalent verb stem;
- the original subject of the monotransitive verb root plays the role of O in the derived stem;
- a new argument, the causer, is added to the clause and takes over the role of subject;
- it is marked by the suffix -pie (which occurs in Slot 1—see §6.2.2.1)

The alternation can be illustrated using the verb stem uriri ‘be frightened’, a monovalent α verb stem whose base form is illustrated in (570). A morphological causative stem which shows β agreement can be derived from it with the suffix -pie, as illustrated in (571).

(570) uva rei-vira uriri-ra-epa
so large-ADV be_scared-1SG.α-RP.α
I was really scared. [Firchow and Akoitai (1974:1,3:35)]

(571) rera uriri-pie-re-va aue=ia kuuvu-va rakoru
PRO.3.SG.M be_scared-CAUS-3SG.β-RP.β CONN=ABL fake-SG.F snake
He frightened him with a pretend snake. [Reader, “Ahu”]

Causativization applies to a wide variety of verb root types. In fact, it applies to all of the various predicate types identified in Table 9.1, with the exception of vate ‘give’. In other words, it is not restricted either by valency (monovalent vs. bivalent) or by agreement types (α vs. β). Some examples of bivalent verb stems derived from montransitive verb roots with -pie are provided in Table 10.2.

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Monovalent Verb Root</th>
<th>Derived Causative Verb Stem (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>α</td>
<td>kopii ‘die’</td>
<td>kopipie ‘kill’</td>
</tr>
<tr>
<td></td>
<td>tarai ‘understand’</td>
<td>taraipie ‘teach’</td>
</tr>
<tr>
<td></td>
<td>kare ‘return, go back’</td>
<td>karepie ‘return s.t.’</td>
</tr>
<tr>
<td></td>
<td>agasi ‘be full’</td>
<td>agasipie ‘fill up’</td>
</tr>
<tr>
<td>β</td>
<td>aata ‘swim’</td>
<td>aatapie ‘make swim’</td>
</tr>
<tr>
<td></td>
<td>papα ‘fly’</td>
<td>vusipie ‘fly’</td>
</tr>
<tr>
<td></td>
<td>tugisi ‘defecate (dog)’</td>
<td>tugisipie ‘make defecate’</td>
</tr>
<tr>
<td></td>
<td>voka ‘walk’</td>
<td>vokapie ‘operate’</td>
</tr>
<tr>
<td></td>
<td>vusi ‘gush out’</td>
<td>vusipie ‘make gush out’</td>
</tr>
</tbody>
</table>

Table 10.2 Morphological Causatives Derived From α and β Monovalent Verb Roots
The use of \textit{-pie} with a monovalent $\alpha$ verb root has already been illustrated in (571). Its use with a monovalent $\beta$ verb root can be illustrated with the verb root \textit{tugisi} ‘defecate’: its default behavior as a verb root is illustrated in (572) and a bivalent verb stem derived from it with the suffix \textit{-pie} is illustrated in (573).

\begin{align*}
(572) & \text{kaakau evoa } \textit{tugisi-e-vo} \\
& \text{dog there defecate-3SG.F}_{\beta}\text{-PRES}_{\beta} \\
& \text{The dog pooped there.}
\end{align*}

\begin{align*}
(573) & \text{Pita kaakau } \textit{tugisi-pie-re-voi} \\
& \text{Pita dog defecate-CAUS-3SG.M}_{\beta}\text{-PRES}_{\beta} \text{ because PRO.3.SG.F hit-3SG.M}_{\beta}\text{-PRES}_{\beta} \\
& \text{Peter made the dog defecate because he hit him.}
\end{align*}

Use of the causative suffix is not restricted to monovalent verb roots, as can be seen from Table 10.3, which lists a number of bivalent stems that occur with \textit{-pie}.

<table>
<thead>
<tr>
<th>Bivalent Stem</th>
<th>Causative Stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{aio} ‘eat’</td>
<td>\textit{aiopie} ‘feed’</td>
</tr>
<tr>
<td>\textit{keke} ‘look’</td>
<td>\textit{kekepie} ‘show’</td>
</tr>
<tr>
<td>\textit{kae} ‘carry’</td>
<td>\textit{kaepie} ‘lift, hoist, raise’</td>
</tr>
<tr>
<td>\textit{guvi} ‘reveal’</td>
<td>\textit{gupiepie} ‘expose, reveal’</td>
</tr>
<tr>
<td>\textit{pura} ‘make’</td>
<td>\textit{purapie} ‘use’</td>
</tr>
<tr>
<td>\textit{ura} ‘chew’</td>
<td>\textit{urapie} ‘make chew betel nut’</td>
</tr>
</tbody>
</table>

\textbf{Table 10.3 Examples of Causative Suffix -pie}

The use of the morphological causative with the bivalent verb root \textit{aio} ‘eat’ is illustrated in (574), where the verb stem \textit{aio} ‘eat’ is causatized; the prederivational O (the notional theme) can either be omitted, as in (574a), or appear as an oblique, as in (574b).

\begin{align*}
(574) & \text{a. kakae vure } \textit{aio-pie-i-va} \text{ aako riako} \\
& \text{child FFP eat-CAUS-3PL}_{\beta}\text{-RP}_{\beta} \text{ mother FP} \\
& \text{The mother is feeding the boy.}
\end{align*}

\begin{align*}
& \text{b. aako-va kakae-to } \textit{aio-pie-e-vo} \text{ itooa} = \textit{ia} \\
& \text{mother-SG.F child-SG.M eat-CAUS-3SG.F}_{\beta}\text{-IP}_{\beta} \text{ banana} = \textit{ABL} \\
& \text{The mother is feeding the boy banana.}
\end{align*}

As Comrie (1989) observes, there are cross-linguistically three basic possibilities for the syntactic treatment of causativized bivalent verbs, listed below in (575).
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10.1 Valency-Increasing Derivations

(575)  
1. the original O retains its status and the causee is peripheral  
2. the original O is peripheral and the causee functions as O  
3. two objects are permitted: the causee and the original O

There are four logical possibilities for the remapping of the arguments of a bivalent verb in a causative construction, which are listed below in Table 10.4.

<table>
<thead>
<tr>
<th>Label</th>
<th>Causer</th>
<th>Causee</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Double object</td>
<td>A</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>2 Double oblique</td>
<td>A</td>
<td>OBL</td>
<td>OBL</td>
</tr>
<tr>
<td>3 Causee-as-O</td>
<td>A</td>
<td>O</td>
<td>OBL</td>
</tr>
<tr>
<td>4 Theme-as-O</td>
<td>A</td>
<td>OBL</td>
<td>O</td>
</tr>
</tbody>
</table>

Table 10.4 Mappings of Arguments in Causatives Derived from Bivalent Verb Stems

Rotokas appears to possess two of these four types. It has the causee-as-O construction, where the causee is O and the theme is oblique, as well as a second construction, where the causee is O and the theme is less clearly oblique. The two construction types are illustrated using the causative verb stem *aivaropie* ‘to introduce’, which is derived from the monovalent verb root *aivaro* ‘to meet’, a monovalent verb root that takes an oblique argument marked by the postpositional enclitic =va, as illustrated in (576).

(576)  
oira-to riako-va=va aivaropie-re-vo uva oira piuuu-re-vo

man-SG.M woman-SG.F=COM meet-3SG.M_β-IP_β and PRO.3.SG.F grab-3SG.M_β-IP_β

oira=va vuri-a pura-sia

PRO.3.SG.M=COM bad-SG.N make-DEP.SEQ

The man met up with the woman and grabbed her in order to do bad with her.

When a bivalent verb stem is derived from *aivaro* ‘meet’ with the causative suffix -pie, the causee plays the role of O and the patient/theme occurs as an oblique, marked either by the postpositional enclitic that it normally selects for (-va in this case) or by the postpositional enclitic =ia, as in (577).

(577)  
A=Causer O=Causee OBL=Theme

(577) a. aite-to ovii-va aivaropie-re oiratoa=ia

father-SG.M daughter-SG.F meet-CAUS-3SG.M_β man-SG.M=LOC

The father introduces his daughter to the man.

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It is also possible for the patient/theme to occur in a postverbal slot, where it normally (thought not necessarily) is followed by *tapo* ‘also’, as in (578).

(578)  
\[ \text{A=Causer} \quad \text{O=Causee} \quad \text{OBL=Theme} \]  
\[ \text{aite-to} \quad \text{ovii-va} \quad \text{aivaro-pie-re} \quad \text{oira-toa=va} \]  
father-SG.M daughter-SG.F meet-CAUS-3SG.M,\( \beta \) man-SG.M=COM  
The father introduces his daughter to the man.

The status of the postverbal argument in the this second construction is somewhat equivocal, but probably best qualifies as a double object construction. On the one hand, *tapo* ‘also’ could be analyzed as an oblique marker, given that it is often found introducing adjunct noun phrases into the clause, as illustrated in (579) through (581).

(579)  
\[ \text{ruve-pa-i} \quad \text{arua} \quad \text{tai} \quad \text{uvare} \quad \text{ruve} \quad \text{tai} \quad \text{tapo} \quad \text{vara} \quad \text{ori-a-vo} \]  
slimy-CONT-PRES,\( \alpha \) vegetable CLF because aibika CLF also PRO.3.PL.N cook-1SG,\( \beta \)-IP,\( \beta \)  
The vegetables are slimy because I cooked them with aibika. [Firchow (1984)]

(580)  
\[ \text{kakae} \quad \text{vure} \quad \text{tou-pa-i-vo} \quad \text{aite-to} \quad \text{tapo} \quad \text{osia} \quad \text{aako-va} \quad \text{kopii-o-e} \]  
child FP be-CONT-3PL,\( \beta \)-IP,\( \beta \) father-SG.M also as mother-SG.F die-3SG,\( F,\alpha \)-IP,\( \alpha \)  
The children were with father when mother died.

(581)  
\[ \text{Rarasori-a} \quad \text{pogarapa-to} \quad \text{oira-to} \quad \text{ira} \quad \text{tapo} \quad \text{kovo-pa-e-veira} \]  
Robinson-SUB white-SG.M man-SG.M RPRO.3.SG,M also work-CONT-3SG,F,\( \beta \)-HAB  
Sera  
Sera  
Robinson is a whiteman who Sera works with.

However, *tapo* is optional for the postverbal argument, which differs from other oblique arguments by occupying a fixed position in the clause. Any deviations from its postverbal position give rise to ungrammaticality, as in (582).

(582)  
\[ * \text{aite-to} \quad \text{ovii-va} \quad \text{oira-toa} \quad \text{tapo} \quad \text{aivaro-pie-re} \]  
father-SG.M daughter-SG.F man-SG.M also introduce-3SG,M,\( \beta \)  
The father introduces his daughter to the man.
There is a certain symmetry here, in that direct objects occupy a preverbal position whereas second objects occupy a postverbal position. Also note that the position occupied by the theme in the double object construction resembles the position occupied by the theme in the double object construction of three-place predicate verb roots (e.g., *vate* ‘give’) (see §9.5.4) and could arguably be considered a single construction.

## 10.2 Valency-Decreasing Derivations

There are three valency-changing derivations in Rotokas that derive verb stems that show $\alpha$ agreement: the reflexive/reciprocal construction (§10.2.1), noun incorporation (§10.2.2), and the resultative construction (§10.2.3).

### 10.2.1 Reflexives/Reciprocals

There is no formal distinction between reflexives and reciprocals in Rotokas, as can be seen from (583), where the reciprocal marker *ora-* derives a reflexive/reciprocal verb from the causative verb stem *kopiipie* ‘to make die, kill’ (in turn derived from the verb root *kopii* ‘die’). It is ambiguous between a reflexive and a reciprocal reading.

(583) \[ \text{ora-} \text{kopiipie-pa-a-i} \]
\[ \text{RR-die-CAUS-CONT-3.PL}_\alpha-\text{PRES}_\alpha \]
They are killing themselves./They are killing each other.

The only explicit means of distinguishing formally between a reflexive and a reciprocal is through use of the adverb *oisiaropavira* (for some speakers, simply *oisipavira*), which means ‘mutually’ or ‘reciprocally’.

(584) \[ \text{oisiaropavira \ ora-} \text{kopiipie-pa-a-i} \]
\[ \text{reciprocally \ RR-die-CAUS-CONT-3.PL}_\alpha-\text{PRES}_\alpha \]
They are killing each other. (≠ They are killing themselves.)

There are three main reciprocal constructions in Rotokas, which differ formally according to where the prefix *ora-* occurs in the clause. We will look at each separately.

---

1The reciprocal adverb *oisianopavira* is morphologically complex and consists of three morphemes: the base form *oisio* or *oisiaro*, which appears to be related to the complementizer for comparisons of manner; the derivational suffix *-pea*; and the adverbal suffix *-vira*. 

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10.2 Valency-Decreasing Derivations

10.2.1.1 Construction 1: Verb Marking

The primary reflexive/reciprocal construction in Rotokas involves the prefixation of \textit{ora-} to the verb stem. This reciprocal construction shows $\alpha$ subject agreement and can be characterized as a valency-decreasing derivation to the extent that it is available for all bivalent verb roots and stems (i.e., verbs with two core arguments, a subject and a direct object). By way of illustration, compare the bivalent clause in (585a) with the derived reciprocal clause in (585b).

(585) a. \textit{oira kakae-ro riako kakae-ro tario-pa-i-voi}  
    \text{male child-PL.CL female child-PL.CL chase-CONT-3PL$_\beta$-PRES$_\beta$}  
    The little boys are chasing the little girls.

b. \textit{oira kakae-ro ora riako kakae-ro ora-tario-pa-a-i}  
    \text{male child-PL.CL and female child-PL.CL RR-chase-CONT-3PL$_\alpha$-PRES$_\alpha$}  
    The little boys and girls are chasing each other.

The verb-marking reciprocal construction also occurs with verbs that are associated with three participants, such as \textit{vate} ‘give’, as illustrated in (586). Note that the verb shows $\alpha$ inflection and the has been demoted to an oblique argument. This can be understood as a consequence of the fact that the reciprocal construction is intransitive and permits only one core argument, forcing any others into the periphery.

(586) \textit{rotokasi-pa-irara ora aita-pa-irara (oisiaropavira) ora-vatevate-pa-a-i}  
    \text{Rotokas-DERIV- and Aita-DERIV- reciprocally RR-give.RDP-CONT-3PL$_\alpha$-PRES$_\alpha$}  
    \text{aasi-ara=ia}  
    \text{belet.nut-PL.N=ABL}  
    The Rotokas and Aita men are giving each other betel nut.

The demotion of the theme in ditransitive-derived reciprocals resembles the demotion of the theme in ditransitive-derived morphological causatives, already observed in §10.1.2 (cf. (?)).

The verb-marking reciprocal construction applies productively to bivalent roots/stems, but it does not occur exclusively with such verb stems. There are also a number of monovalent verb roots that enter into it. These verbs can occur with or without the reflexive/reciprocal prefix \textit{ora-} with no obvious change in meaning. For example, the reduplicated verb stem \textit{tupetupereo} ‘line up’ can occur with or without \textit{ora-}, as in (587).

(587) \textit{balusi-ara (ora)tupetupereo-pa-i rere-pa-oror rasito-a=ia}  
    \text{plane-PL.N RR-line.up.RDP-CONT-PRES$_\alpha$ land-CONT-DEP.SIM ground-SG.N=ABL}  
    The planes lined up as they landed.
A number of verb stems of this type are listed below in Table 10.5. Some of these would arguably qualify as “natural reciprocals” (Haiman, 1985) or “symmetric predicates” (Langendoen, 1992).

<table>
<thead>
<tr>
<th>Verb Stem</th>
<th>Gloss</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>paupau</td>
<td>race</td>
<td></td>
</tr>
<tr>
<td>pekapekara</td>
<td>line up</td>
<td></td>
</tr>
<tr>
<td>riga</td>
<td>spread, scattered</td>
<td></td>
</tr>
<tr>
<td>sekari</td>
<td>shake hands</td>
<td>Tok Pisin loan</td>
</tr>
<tr>
<td>takato</td>
<td>argue</td>
<td></td>
</tr>
<tr>
<td>tava</td>
<td>sun bathe</td>
<td></td>
</tr>
<tr>
<td>topogo</td>
<td>be reckless or careless</td>
<td></td>
</tr>
<tr>
<td>tupetupereo</td>
<td>in pairs</td>
<td></td>
</tr>
<tr>
<td>uugaa</td>
<td>kiss</td>
<td></td>
</tr>
<tr>
<td>virato</td>
<td>segregated, refined</td>
<td></td>
</tr>
<tr>
<td>viru</td>
<td>move</td>
<td></td>
</tr>
</tbody>
</table>

Table 10.5 Monovalent Verb Roots Capable of Occuring with the Reflexive/Reciprocal Marker

10.2.1.2 Construction 2: Pronoun Marking

There is a second construction type that differs from the first to the extent that the prefix ora- occurs on an oblique-marked pronoun, and not on the verbal complex. For example, in (588), reciprocal marking occurs on the third person plural masculine pronoun, which is an oblique argument of the verb stem reasi ‘dislike’.

(588) oira kakae-ro ora riako kakae-ro (oisiaropavira) ora-voea=pa reasi-pa-a-i dislike-CONT-3PLα-PRESα Little boys and girls dislike each other.

Prefixation of ora- to the verb stem is not possible for the verb reasi, as shown by the ungrammaticality of (589).

(589) * oira kakae-ro ora riako kakae-ro ora-reasi-pa-a-i Little boys and girls dislike each other.

---

2 This list is not exhaustive and simply lists those verb stems that were readily identifiable in the author’s lexical database of Rotokas (Robinson and Mon, 2006).
The difference between verb and pronoun marking reciprocal constructions has to do with the distinction between core and oblique argument (Andrews, 1985). The prefix or- occurs on the verb when a verb takes a direct object (core argument) but on an oblique-marked pronoun when a verb takes an oblique argument. It does not matter whether the verb with an oblique argument shows $\alpha$ or $\beta$ agreement. For example, the verb root tara ‘look for’ also takes an oblique argument but shows $\beta$ agreement, as illustrated in (621). Yet reciprocals based on this verb are pronoun marking, as can be seen in (592).

(590) oira-ra riako-ra=re tara-pa-i-voi
    man-HUM.PL woman-HUM.PL=ALL seek(CONT)-3PL$\beta$-PRES$\beta$
    The men are looking for the women.

(591) * oira-ra ora riako-ra oisiaropavira ora-tara-pa-a-i
    man- and woman- reciprocally RR seek(CONT)-3PL$\alpha$-PRES$\alpha$
    The men and women are looking for each other.

(592) oira-ra ora riako-ra (oisiaropavira) ora-voea-re
    men-HUM.PL and women-HUM.PL reciprocally RR PRO.3.PL.M=ALL
    tara-pa-a-i
    seek(CONT)-3PL$\alpha$-PRES$\alpha$
    The men and women are looking for each other.

As we might expect given the previously described core/oblique distinction, the prefix or- also occurs on pronominal adjuncts, as can be seen from (593).

(593) vo-vokiaro uva oisoa ora-vaiterei ruvara=ia uusi-pa-si
    SPEC-night and always RR PRO.3.DL.M near=ABL sleep(CONT)-3DL.M
    During the night they slept next to each other.

10.2.1.3 Construction 3: Noun Marking

Whereas the difference between the two previous constructions has to do with the distinction between core and oblique arguments, this third reciprocal construction type is more semantically restricted. It is only found when the reflexive or reciprocal action is performed on body parts, as illustrated in (594).
Although it may seem that this construction involves the incorporation of a body part term into the verbal complex, much like object incorporation (see §10.2.2), there are good reasons to reject such an analysis. First, incorporated objects are bare stems, devoid of any morphology, as shown by the contrast between the transitive clause (595a) and its counterpart with object incorporation in (595b), which lacks the classifier and postpositional enclitic.

Second, whereas noun incorporation is consistently α, the noun marking reciprocal construction does not show a consistent form of agreement, as can be seen in (??), where either α or β agreement is possible. (It is unclear at present whether there is a semantic or syntactic difference between the α and β noun marking reciprocals.)

Third, whereas adverbials cannot intervene between an incorporated noun and the incorporating verb stem, as in (597), no such constraint operates with body-part reciprocals, as shown by the contrast between object incorporation in (597) and noun-marked reciprocals in (598).
10.2 Valency-Decreasing Derivations

Incorporation

(597) a. **ikau-vira opita kuri-pa-ra-i**
    
    run-ADV coconut scrape-CONT-1SG\_α-PRES\_α

    I am quickly coconut-scraping.

    b. *opita **ikau-vira kuri-pa-ra-i**
    
    coconut run-ADV scrape-CONT-1SG\_α-PRES\_α

    I am quickly coconut-scraping.

Reflexive/Reciprocal

(598) a. **ora-kagave-aro oisiaropavira upo-pa-si-ei**
    
    RR-face-POSS reciprocally hit-CONT-3DL.M-PRES\_α

    They are hitting each other in the face.

    b. oisiaropavira **ora-kagave-aro upo-pa-si-ei**
    
    reciprocally RR-face-POSS hit-CONT-3DL.M-PRES\_α

    They are hitting each other in the face.

The distribution of reciprocal construction types in Rotokas is predicted by a combination of factors. Unless the reciprocal action in the clause is performed on a body part, in which case the noun marking construction will be found, the general rule is: a reciprocal situation described by a verb with two core arguments will be verb marking whereas one described by a verb with a single core argument will be pronoun marking. However, there are unexplained exceptions to the general rule. For example, the verb **reo** “talk” is a monovalent verb root which takes \(\alpha\) subject agreement and encodes the addressee as an oblique argument, as in (599).

(599) pisipisia-vira **Rarasioi reo-pa-ro-e** kakae vure=\(re\)

    different-ADV Robinson talk-CONT-3SG.M\_\(\alpha\)-\(1P\_\(\alpha\)\) child FP=ALL

    Robinson speaks differently to the children.

Although we would expect the prefix **ora**- to occur on a pronominal oblique argument, this is not in fact what happens, as can be seen from (600), which shows verb-marking.

(600) **Pita vaio ora Jon oavuavu=ia ogaoga-vira ora-reo-pa-si-e**

    Pita ANIM.DL and Jon something=ABL whisper.RDP-ADV RR-talk-CONT-3DL.M-\(1P\_\(\alpha\)\)

    Peter and John are whispering to one another about something.
This could be treated as a lexical idiosyncracy, thereby preserving the general rule; however, this raises some questions concerning the nature of the difference between verb marking and pronoun marking reciprocals. It may prove to be the case that a grammatical generalization couched in terms of the distinction between core and oblique can be derived from lexical semantics via some sort of linking algorithm (Levin and Hovav, 2006; Van Valin, 2006), and a full account of this mapping might better explain the distribution of construction types. Whatever the final analysis proves to be, these considerations underscore the challenges reciprocals pose for an account of transitivity and argument structure not just in Rotokas but also cross-linguistically (Evans et al., 2005).

### 10.2.2 Noun Incorporation

Noun incorporation is a phenomenon where a noun occurs tightly bound or attached to the verb, rather than in its canonical position (Anderson, 1985; de Reuse, 1964; Mithun, 1984, 1986; Rosen, 1989; Sadock, 1986; Sapir, 1911). In Rotokas, both direct objects and oblique arguments are capable of being incorporated. The incorporation of a direct object is illustrated with the bivalent verb root *ou* ‘get’ in (601) and the incorporation of an oblique argument is illustrated with the monovalent verb root *tara* ‘search, look for find’ in (602).

(601) Raupeto oisoa rasi-va kasi-pa-re-ve oiso=re ra revasi-vira
Raupeto always dirt-SG.F burn-CONT-3SG.M$\beta$-SUB COMP=ALL and red-ADV
kareke-pa-o ra oira=ia vori ou-pa-ro
appear-CONT-3SG.F and PRO.3.SG.F=LOC money get-CONT-3SG.M$\alpha$
Raupeto cooked dirt in order to turn it red and he gets money from it.

(602) eto tara-pa-ro-e Siape oisio ra eto kasi-ro
fire search_for-CONT-3SG.M$\alpha$-IP$\alpha$ Siape COMP and fire burn-3SG.M$\alpha$
Siape was searching for fire in order to make a fire.

Verb stems that have incorporated arguments consistently show $\alpha$ inflection, regardless of the form of verbal inflection they would normally take with non-incorporated arguments. A bivalent verb root with an incorporated object is illustrated in (603) and a labile verb root with an incorporated object is illustrated in (604). Although these verb stems would normally show $\beta$ agreement when they take a direct object (a second core argument), they show $\alpha$ agreement when they have incorporated objects.\(^3\)

\[^3\]It might be argued that the verb root *pura* is not really labile (see §10.1.1) in the sense that its monovalent and bivalent usages do not have a systematically-related meaning (as e.g. *aio* ‘eat’ or *kavau* ‘give birth’ clearly do). It
10.2 Valency-Decreasing Derivations

Valency-Changing Derivations

(603) teapi varo ou-pa-u vao=ia moni-a ari araisi
lest clothing get-CONT-2SG.α DEM.PROX.SG.N=LOC money-SG.N but rice
ou-sia eva moni-a
get-DEP.SEQ DEM.MED.SG.N money-SG.N
Don’t go clothes-buying with this money, because that money is for getting rice.

(604) Sirikoiri ratao pura-ro-i kepa=ia aire-pa kepa rera
Sirikoiri door make-3SG.F.α-PRES.α house=LOC new-DERIV house PRO.3.SG.M
vo-kepa-aro ra va=ia uusi-ro
SPEC-house-POSS and PRO.3.SG.N=LOC sleep-3SG.F.α
Sirikoiri is door-making for his new house, the house in which sleeps.

Incorporated arguments have a number of semantic properties that are identified in Hopper and Thompson (1980) as features of less individuated objects (see §8.3.1 for discussion). The specific features discussed in Hopper and Thompson (1980) are listed below in Table 10.6.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Free Nouns</th>
<th>Incorporated Nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specificity</td>
<td>specific</td>
<td>generic</td>
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<tr>
<td>Referentiality</td>
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<td>nonreferential</td>
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<td>nonhuman</td>
</tr>
<tr>
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<td>nonvolitional</td>
</tr>
<tr>
<td>Control</td>
<td>control</td>
<td>non-control</td>
</tr>
</tbody>
</table>

Table 10.6 Properties Relevant to the Individuation of O (Hopper and Thompson, 1980:???)

In Rotokas, incorporated object are non-specific/non-referential/indefinite (in the sense that they do not refer to a specific, identifiable object). It is presumably for this reason that they cannot be a proper noun (as revealed by elicitation with native-speaker consultants). Volitionality and Control do not appear to be relevant, nor do animacy or humanness, since inanimate, animate (animals, etc.), and human nouns all function as incorporated objects. Examples of inanimate incorporated objects were already provided in (603) through (604). An animate incorporated object is provided in (605) and a human incorporated object is provided in (606).

is therefore possible to claim that there are simply two homophonous verb roots that happen to be homophonous: one that functions as a monovalent verb stem and shows $\alpha$ agreement and another that functions as a bivalent verb stem and shows $\beta$ agreement—i.e., pura₁ $[\alpha]$ “to say” versus pura₂ $[\beta]$ “to make, do”. However, the prevalence of this type of homophony in the region suggests that there may in fact be a systematically-related meaning.
Valency-Changing Derivations

10.2 Valency-Decreasing Derivations

(605) koie kovasi-o-i iria kaka kavau-pa-o-i
pig be_pregnant-3SG.F₁-PRES₁ RPRO.3.SG.F child give_birth-CONT-3SG.F₁-PRES₁
rara.
later
The pig is pregnant and she will bear children later.

(606) asao-va riako-va iria viapau kaka kavau-pa-o
sterile-SG.F woman-SG.F RPRO.3.SG.F NEG child give_birth-CONT-3SG.F₁
A sterile women is one who doesn’t bear children.

Noun incorporation in Rotokas is identifiable on the basis of a number of formal criteria, which are listed and briefly described in (607).

(607) Agreement the incorporating verb root consistently shows α agreement (regardless of its default classification)
No Morphology the incorporated noun is a bare noun stem, with neither suffixes (possessive, diminuitive, etc.) nor enclitics (oblique marking)
Verbal complex the incorporated noun is tightly bound to the verbal complex, permitting no intervening material

Each of the criteria in (607) is discussed in more detail in §10.2.2.1 through §10.2.2.3.

10.2.2.1 Incorporating Verbs Show α Agreement

As previously established in Chapter 9, bivalent verbs (i.e., verbs with two core arguments) invariably show β agreement, as illustrated for the labile verb root aio ‘eat’ in (608) and (609). The verb root aio ‘eat (something)’ takes a classified noun, oveu kue ‘breadfruit’, as its direct object in (608) and a modified third person singular neuter noun kakapikoa aioa ‘little (amount of) food’ as its direct object in (609).

(608) urakava oveu kue aio-pa-e-vo vokiaro
flying.fox breadfruit CLASS eat-CONT-3SG.F₁-IP₁ night
The flying fox eats breadfruit at night.

(609) Rarasori kakapiko-a aio-a aio-pa-re-voi uva rera=pa
Robinson little-SG.N food-SG.N eat-CONT-3SG.M₁-PRES₁ and PRO.3.SG.M=BEN
sirao-pa-ro-e Pita
feel_sorry-CONT-3SG.M₁-IP₁ Peter
Robinson is eating little food and Peter feels sorry for him.
However, verbs with an incorporated object invariably show $\alpha$ agreement, as illustrated for the incorporated objects in (610) and (611).

(610) * avuka-va iria atope=ia arua aio-pa-o-i
beach-SG.F PRO.3.SG.M coconut_shell=LOC greens eat-CONT-3SG.F$\alpha$-PRES$\alpha$
The old woman is eating greens from a coconut shell.

(611) Reari ira akoroa=ia aasi aio-pa-ro-i
Reari RPRO.3.SG.M betel_net=LOC betel.nut eat-CONT-3SG.M$\alpha$-PRES$\alpha$
Reari is chewing betel nut with lime. [= (464)]

Noun incorporation is difficult to identify in dependent verbs since dependent verbs lack subject agreement of tense/mood marking (see §7.3.2.1). It is, however, identifiable with verbs that normally take oblique arguments, since they occur as bare nominals (i.e., without classifiers or postpositional role-marking enclitics—see §9.3.3).

10.2.2.2 No Intervening Material Between the Verb and Its Incorporated Noun

Adverbials are normally free to occupy a wide variety of positions within a clause, even intervening between a verb and its direct object (see §7.2.1), as shown in (612) or (613).

(612) * oirato koie ikau-vira kaviru-re-vo
man-SG.M pig quick-ADV steal-3SG.M$\beta$-RP$\beta$
The man quickly stole the pig. [= (347)]

(613) Savere takei pariparikou-vira pura-re-voi rera
Savere wall crossed-ADV make-3SG.M$\beta$-PRES$\beta$ PRO.3.SG.M
vo-kepa-aro=ia
SPEC-house-POSS=LOC
Savere made criss-crossed the wall on his house.

However, the tight association of incorporated nouns and their associated verbs is evident from the fact that adverbials cannot intervene between them (cf. (612)), as shown by the ungrammaticality of (614).

(614) * oirato koie ikau-vira kaviru-pa-ro-epa
man pig quick-ADV steal-CONT-3SG.M$\alpha$-RP$\alpha$
The man quickly stole the pig. [= (347)]
10.2.2.3 No Morphology or Oblique Marking on Incorporated Nouns

Another indication of the tight association between incorporated objects and their associated verbs is that arguments that normally appear case-marked appear as bare noun roots when incorporated. For example, the verb root *tara* ‘search for, look for’ normally shows $\beta$ agreement, as illustrated in (615); however, when the oblique argument is incorporated, oblique marking is not found, as shown by (616). (Also note the absence of a classifier with the incorporated noun.)

(615)  \textit{ragai} \textit{opita} \textit{isi}=\textit{re} \textit{tara-pa-a-voi}

\begin{verbatim}
  PRO.1.SG coconut CLASS=ALL seek-CONT-1SG$_{\beta}$-PRES$_{\beta}$
\end{verbatim}

I’m looking for a coconut.

(616)  \textit{ragai} \textit{opita} \textit{tara-pa-ra-i}

\begin{verbatim}
  PRO.1.SG coconut seek-CONT-1SG$_{\alpha}$-PRES$_{\alpha}$
\end{verbatim}

I’m looking for coconuts.

It is more difficult to identify noun incorporation with verbs that normally take $\alpha$ agreement since there is no tell-tale change in verbal agreement but the lack of verbal agreement provides a subtle clue, as can be illustrated with the verb stem *ruipa* ‘want’. It normally takes an oblique argument marked by the enclitic $=$pa, as illustrated in (617) and (618).

(617)  \textit{oari}=\textit{pa} \textit{ruipa-pa-ra-i} \textit{riako-va}

\begin{verbatim}
  DEM.DIST.SG.F=ben want-CONT-1SG$_{\alpha}$-PRES$_{\alpha}$ woman-SG.F
\end{verbatim}

I like that woman.

(618)  \textit{pepa-ara}=\textit{pa} \textit{ruipa-pa-a-veira} \textit{oira-ra} \textit{rutu voeao}

\begin{verbatim}
  paper-PL.N=BEN want-CONT-3PL$_{\alpha}$-HAB man-HUM.PL very DEM.PROX.PL.M
  oa \textit{sivuka-pa-a-veira}
  RPRO.3.SG.N smoke-CONT-3PL$_{\alpha}$-HAB
\end{verbatim}

They always want paper, those men who smoke.

When the oblique arguments of verbs are incorporated, they occur as bare nominals without oblique marking. For example, the verb root *ruipa* ‘want’ normally selects for the benefactive postpositional enclitic $=$pa, but no such oblique marking is found in (619) and (620).

(619)  \textit{uva} \textit{riro-vira} \textit{uuko ruipa-pa-ra-i}

\begin{verbatim}
  and big-ADV water want-CONT-1SG$_{\alpha}$-PRES$_{\alpha}$
\end{verbatim}

I really want water.
Thanks to the absence of case marking on incorporated nouns, object incorporation is identifiable even in dependent clauses with no person/number/gender marking, provided the verb stem takes an oblique argument marked by a particular postpositional enclitic. For example, the verb root tara ‘seek, search for, look for’ shows $\beta$ agreement selects for the allative postpositional enclitic $=re$, as illustrated in (621).

(621) Agiosi $aako-va=re$ $tara-pa-e-vo$
Agiosi mother-SG.F=ALL look_for-CONT-3SG.F$_\beta$-IP$_\beta$
Agiosi is looking for mother.

When tara functions as a dependent verb, it shows no agreement for person/number/gender but its oblique argument still occurs with the usual enclitic ($=re$), as illustrated in (622).

(622) oisio $ruipa-pa-ra-i$ $ra$ $vore-ta$ $sigo-a=re$ $tara-sia$
COMP want-CONT-1SG$_\alpha$-PRES$_\alpha$ COMP return-2PL knife-SG.N=ALL find-DEP.SEQ
$oa$ $viki-ta-vo$
RPRO.3.SG.N lose-2PL-IP$_\beta$
I want you guys to return and find the knife that I lost.

However, when the verb root tara ‘seek’ functions as a dependent verb with an incorporated object, no oblique marking is present, as illustrated in (623) and , where the argument atari ‘fish’ occurs a bare nominal without the enclitic $=re$.

(623) vegei $roko-pa-ve$ $eisi-re$ $avaka-va$ atari $tara-sia$
PRO.1.DL go_inside-CONT-1DL LOC=ALL beach-SG.F fish seek-DEP.SEQ
We’ll go to the beach for fish-seeking.

(624) kakae $vasie$ varu $tara-sia$ ava-a-e $vo-vegoaro$
child CLASS meat seek-DEP.SEQ go-3PL$_\alpha$-IP$_\alpha$ SPEC-jungle
The boy are going meat-finding in the jungle.
10.2.3 Resultative

In addition to the various constructions that clearly qualify as valency-changing derivations, there is another derivational suffix, -piro or -viro, which systematically affects verb classification.\(^4\) It is illustrated in (625) and (626). The form -piro is found with neuter subjects, as in (625), whereas the form -viro is found with non-neuter subjects, as in (626) (see §6.2.2.4).

(625) **epusi ragai gagarike-e-vo uva gagoago-ara pura-piro**
cat PRO.1.SG scratch-3SG.F\(\beta\)-IP\(\beta\) and scratch-PL.N make-RES
A cat scratched me and left a sore.

(626) **Rusire perete gaveru-e-voi uva pege-o-viro-i**
     Rusire plate lose_grip-3SG.F\(\beta\)-PRES\(\beta\) and break-3SG.F\(\alpha\)-RES-PRES\(\alpha\)
Rusire lost her grip on the plate and it is broken.

Firchow (1987) characterizes the suffix that marks this construction as the “completive” suffix but this characterization is questionable given that the form co-occurs with the continuous suffix (see §6.2.2.3), as illustrated in (627) and (628).

(627) **gesio-pie-vira rutu aio-pa-piro-i arua tai uvare va**
taste-CAUS-ADV very eat-CONT-RES-PRES\(\alpha\) and break-3SG.F\(\alpha\)-RES-PRES\(\alpha\)
     kuvu-e-vo aue=ia veeta
pack-3SG.F\(\beta\)-IP\(\beta\) CONN=LOC bamboo
The vegetables are tasty (literally, eat tastily) because he packed them in bamboo.

(628) **kakae vure kosikosi-pa-viro-i kepa sovara iava**
     child FP come_out.RDP-CONT-RES-PRES\(\alpha\) house inside POST
The children have come outside of the house.

These suffixes are consistently associated with \(\alpha\) verbal inflection. The effect of the suffix on verbal inflection can be illustrated with the labile verb root ori ‘cook’ (see §10.1.1). It shows \(\alpha\) agreement when it takes a single core argument, as in (629) and \(\beta\) verb agreement when it takes two core arguments, as in (630).

(629) **Vitera okote-sia ava-o-e igei=re kasipu-pa-or\(o\)**
     Vitera crab-DEP.SEQ go-3SG.F\(\alpha\)-IP\(\alpha\) PRO.1.PL.EXCL=ALL angry-CONT-DEP.SIM
     uvare viapau ori-i-e
because NEG cook-1PL.EXCL-IP\(\alpha\)
Vitera went to collect crabs, mad at us because we didn’t cook.

---

\(^4\)Firchow (1987) describes the two forms as -(u)viro and -piro. It is unclear why he attributes u to the suffix since there is no evidence of its presence in Firchow’s materials or my own.
10.2 Valency-Decreasing Derivations

Valency-Changing Derivations

(630) *Ireviri koorato siare-aro ori-re-voi*

Ireviri possum innards-POSS cook-3SG.Mβ-PRESβ
Ireviri is cooking the possum’s innards.

Because *ori* ‘cook’ is a labile verb of the S=A type, it subject corresponds to the semantic roles of actor/agent. However, when the verb root occurs with the resultative suffix, its subject corresponds to the semantic role of patient/theme and the verb shows α agreement, as illustrated in (632).

(631) *Rusire arua tai ori-e-vo akurovu=ia uva vearo-pie-vira rutu*

Rusire vegetable CLASS cook-3SG.Mβ-IPβ salt=LOC and good-CAUS-ADV very ori-piro
cook-RES
Rusire cooked vegetables in salt and they cooked well.

(632) *araisi tovure-vira ori-o-viro-i*

rice soggy-ADV cook-3SG.Fα-RES-PRESα
The rice was cooked soggy.

Because of the remapping of semantic roles that occurs with this suffix, it is tempting to analyze it as an agentless passive (?). However, the characterization of this suffix as a valency-decreasing derivation is questionable, given that the objective resultative construction also occurs with monovalent verb stems. For example, the verb *kare* ‘return’ normally shows α agreement, as in (633), and this does not change when it is used in the objective resultative construction, as in (634).

(633) *Pera turituri-vira kare-ro-e eisi=va sikuru-a*

Pera direct.RDP-ADV return-3SG.Mα-IPα LOC=ABL school-SG.N
Pera returned directly from school.

(634) *riuru-vira raga Saro kare-ro-viro-i vo-va vegoaro*

dirty-ADV only Saro return-3SG.Mα-RES-PRESα here=ABL jungle
Saro returned from the jungle dirty.

The occurrence of the resultative suffix with monovalent verb stems is not simply an idiosyncracy that could be explained away in terms of lexicalization, since it occurs with a number of other monovalent verb stems in addition to *kare* ‘return’. For example, it occurs with the α monovalent root *kosi* ‘come out’ in (635) and with the β monovalent root *pou* ‘arrive’ in (636).
Valency-Changing Derivations 10.2 Valency-Decreasing Derivations

(635) avavaro-pa-vira raga kosi-ro-viro kove-sia vo-garasi ivara=ia
    dizzy-CONT-ADV only come_out-RES fall-DEPSEQ SPEC-grass above=LOC
He went outside dizzily and fell down on top of the grass.

(636) Riki ora-vikiviki-irao-ro-i roru-pa-oro ovusia aite-to
    Riki RR-jump.RDP-INTEN-3SG.M_κ-PRES_κ happy-CONT-DEP.SIM while father-SG.M
pou-ro-viro-i kotokoto-ara=va
    arrive-3SG.M_κ-RES-PRES_κ cargo-PL.N=COM
Riki jumped up and down happy when father arrived with cargo.

This construction is also found with bivalent verbs. Its use with the bivalent verb stem ori ‘cook’ was already provided in (632). Since ori ‘cook’ is labile (see §10.1.1), it is useful to provide a less equivocal example, such as the verb stem poroporo ‘shatter’. It is a bivalent stem which normally shows β agreement, as in (637), but shows α agreement when used in the objective resultative construction, as in (638).

(637) Pita siveri poroporo-pa-re-voi torara=ia
    Peter cement shatter-CONT-3SG.M_β-PRES_β axe=LOC
Peter is shattering the cement with a rock.

(638) Pita siveri vuro-re-voi avike=ia uva poroporo-o-viro-i
    Peter cement throw_at-3SG.M_β-PRES_β rock=LOC and shatter-3SG.F_α-RES-PRES_α
Peter threw rocks at the cement and it shattered.

Although the resultative suffix is found with bivalent verb roots, it does not occur with bivalent verb stems derived with the causative suffix -piro. In this respect, the resultative differs from other valency-reducing suffixes (e.g., the reflexive/reciprocal), which can be “fed” by the causative suffix (cf. (583)).

The verb forms marked by -piro and -viro would be characterized as “objective resultatives”: “the underlying subject of the state (which is expressed by the surface object of the stative predicate) is co-referential with the underlying subject of the preceding action, while in the case of the objective resultative it is co-referential with the underlying object of the latter” (Nedjalkov and Jaxontov, 1988:???). Nedjalkov and Jaxontov (1988:6) characterize resultatives as “verb forms that express a state implying a previous event”, distinguishing them from statives as follows: “the stative expresses a state of a thing without any implication of its origin, while the resultative expresses both a state and the preceding action it has resulted from”. [SAY MORE]

The objective resultative does not co-occur with other valency-changing derivations. It is incompatible with the causative suffix and the reflexive suffix.
10.3 Conclusion

Although one of the most firm generalizations made concerning verbal inflection in verb roots—that a verb stem that has a direct object will show $\beta$ agreement—is couched in terms of valency, the evidence from valency-changing derivation is more equivocal. The behavior of valency-increasing derivations supports this generalization and the reflexive/reciprocal construction provides additional evidence for a fundamental distinction between monovalent and bivalent verb stems, but noun incorporation and the resultative construction are not as obviously syntactic. In fact, the distinction between core and non-core arguments does not appear to be relevant to noun incorporation, since both direct objects and oblique arguments are able to incorporate and the reflexive/reciprocal and resultative construction do not apply exclusively to bivalent verb roots.

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<tr>
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<th>Arguments</th>
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<th>Reflexive/Reciprocal</th>
<th>Noun Incorporation</th>
<th>Resultative</th>
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<tr>
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</tr>
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<td>2</td>
<td>A, O</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6 $\beta$</td>
<td>2</td>
<td>A, O, Oblique</td>
<td>–</td>
<td>✓</td>
<td>✓</td>
<td>?</td>
</tr>
</tbody>
</table>

Table 10.7 Relationship Between Verb Root Classes and Valency-Changing Derivations

In the following chapter, more in-depth analysis of semantic roles and their realization in Rotokas will be provided in order to pursue the idea that the distinction between $\alpha$ and $\beta$ agreement cannot be formulated in terms of simple grammatical roles, but requires reference to a more articulated semantic event structure.
In Chapter 9, valency in Rotokas was described and it was found that verbal inflection is not predictable on the basis of valency alone, since verb roots that select a single argument are split between those that show \(\alpha\) inflection and those that show \(\beta\) inflection. Derived verb stems show a more consistent pattern of verbal inflection, with derived monovalent verb stems consistently showing \(\alpha\) agreement and derived bivalent verb stems consistently showing \(\beta\) agreement. Since verbal inflection is partially but not entirely predictable on the basis of valency, it is worth asking whether it can be predicted entirely on the basis of semantics. In §11.1, the semantic roles associated with the various grammatical roles are examined and the semantic basis of its split intransitivity is explored. In §11.2, the results are situated within a broader typological context and the wider implications of Rotokas for morphosyntactic theory in general and for theories of split intransitivity in particular is discussed.

### 11.1 Semantic Roles in Rotokas

Since many theories of split intransitivity make reference to semantic notions (such as agentivity or affectedness), a proper evaluation of them with respect to Rotokas requires a more detailed examination of the semantic roles associated with verbs in Rotokas.

Andrews (1985) observes that a distinction is typically found in languages, and to varying degrees insisted upon by linguistic theory, between two types of case: semantic case and grammatical case. The distinction is sometimes characterized as the difference between core and oblique grammatical functions. Andrews (1985:???) observes “One set of cases, commonly called syntactic, structural or direct cases, mark the core functions, another, commonly called semantic cases, mark the oblique functions.” Andrews (1985) furthermore observes that the dis-
11.1 Semantic Roles in Rotokas

Split Intransitivity

tinction between the two boils down to semantic generality: “NPs with syntactic cases tend to
express a wide range of semantic functions and to be targetted by rules sensitive to grammatical
function, while NPs with semantic cases tend not to have these properties.”

The idea that the distinction between semantic case and grammatical case is one of seman-
tic generality is made explicit in Role and Reference Grammar (RRG) (Van Valin and LaPolla,
1997; Van Valin and Wilkins, 1996; Van Valin, 2006), where semantic roles are treated accord-
ing to three levels of generality:

Verb-specific semantic roles Semantic roles that are specific to a particular verb (e.g., killer,
hearer, smasher, etc.).

Thematic relations Semantic roles that generalize over verb-specific roles (e.g., Agent, Pa-
tient, etc.).

Macro-roles Semantic roles that generalize over thematic relations (e.g., Actor and Under-
goer).

The way in which verb-specific semantic roles can be grouped together into thematic rela-
tions and thematic relations in turn grouped together into macro-roles is illustrated in Figure
11.1, which looks at the way in which Rotokas would be analyzed according to such a scheme.
11.1 Semantic Roles in Rotokas

In the following section, a handful of the more commonly discussed semantic roles and their encoding in Rotokas will be discussed.

11.1.1 Thematic Roles in Rotokas

This section examines a number of the thematic roles more commonly recognized in the literature: Agent, Patient, Theme, Recipient, etc. Other labels could be applied to the semantic roles that will be discussed, and no doubt finer distinctions could be recognized. The point is
not to provide an exhaustive classification of semantic roles in Rotokas but to provide a loose characterization of a few roles to see to what extent thematic roles can be used to explain the nature of verb agreement in Rotokas.

11.1 Semantic Roles in Rotokas

11.1.1 Agent

The thematic role of agent has played a very central role in grammatical theory. Since there have been many different conceptions of agenthood in the literature, it pays to pin down a bit more precisely what is meant by the term. The prototypical agent is human, volitional, and intentional (DeLancey, 1985; Frawley, 1992). [SAY MORE, GIVE QUOTE] Van Valin and Wilkins (1996) observe that a verb such as *kill* is not necessarily agentive, to the extent that it does not require that the agent act intentionally, whereas a verb such as *murder* is, as illustrated by (639).

(639) a. Larry accidentally killed the deer.

         b. * Larry accidentally murdered the deer.

In Rotokas, there are at least three verbs that would be translated as “kill”: *upo* ‘strike, fight’, as in (640); *kopiipie* ‘kill (literally: make die)’, as in (641); and *tagoro* ‘murder, kill in secret (not publically)’, as in (642).

(640)  *Tapi araoko-to  eaka-re-va  viuru-pa-irara  vavaea-ro=ia*

Tapi brother-SG.M hand_over-3SG.M β-RP β enemy-DERIV-HUM.PL hand-=ABL

oisio ra rera  *upo-i-ve*

COMP PPRO.3.SG.M hit-3PL β-SUB

Tapi hand his his brother over to the army and they killed him.

(641)  *Kokota sora-to  ira  oira-ra kopii-pie-pa-re-veira*

Kokota sorcerer-SG.M RPRO.3.SG.M people die-CAUS-CONT-3SG.M β-HAB

Kokota is a sorcerer kills men.

(642)  *ora-upo-pa-oro  ira-vu  tagoro-i-vo  oa iava  koopi-ro-e*

RR-fight-CONT-DEP.SIM RPRO.3.SG.M ALT kill-3PL β-IP β therefore die-3SG.M α-IP α

While fighting, he killed one man and therefore he died.

In (643), the verb stem *kopiipie* ‘kill’ serves as the independent verb while *upo* ‘fight, strike’ specifies as a dependent verb the manner in which the killing takes place.
(643) *Tomas Jon kopii-pie-re-vo rera upo-ororo
Tomas Jon die-CAUS-3SG.Mβ-IP R PPRO.3.SG.M hit-DEP.SIM
Tomas killed John by hitting him.

Language vary in the extent to which departures from the prototypical transitive situation require different grammatical treatment. For example, natural forces depart from the prototypical transitive situation to the extent that changes of state caused by them do not involve a volitional human agent. Accordingly, they cannot play the role of subject in a transitive verb in some languages, such as the Papuan language, Usan (Reesink, 1984), as illustrated in (644).

(644) a. munon eng nam s-orei
   man the tree cut3SG.FP
   The man cut a tree.

   b. * moon ñib nam boat-erei
      wind big tree break3SG.FP
      “A strong wind broke the tree.” (Reesink, 1984:131)

In Rotokas, neither animacy nor volitionality are necessary conditions for subjecthood, as both prototypical and non-prototypical agents are able to serve the role of the subject of bivalent verb roots, as illustrated by the non-prototypical subjects in (645) through (647).

(645) uuuvau-va Rara kopii-pie-e-va
   tuberculosis-SG.F Rara die-CAUS-3SG.Fβ-IP R β
   Tuberculosis killed Rara.

(646) riro kou toru kou opuruva gasigasi-voi
   big CLASS wave CLASS canoe break.RDP PRES β
   A big wave is breaking the canoe.

(647) kiuvu erako-va rukeruke-re-voi
   wind tree-SG.F shake.RDP-3SG.Mβ-PRES β because big-ADV blow-3SG.Mα-PRES α
   The wind is shaking the tree because it was really blowing.

In addition to the roles of Agent and Instrument, some authors have also postulated a role of Cause or Reason, which differs from the thematic role of Agent to the extent that it is not necessarily human, volitional, or intentional and its involvement in the situation is less direct. In Rotokas, Cause or Reason takes the form of an oblique argument marked by the postposition iava, as illustrated in (650) and (648).
11.1 Semantic Roles in Rotokas

Split Intransitivity

(648) oira-to ora-karekare-pa-ro-i veruveru iava
    man-SG.M RR-scratch-CONT-3SG.M\textsubscript{α}-PRES\textsubscript{α} grille POST
The man is scratching himself because of the grille (skin disease). [Firchow (1984)]

There is some flexibility in the grammatical realization of Cause of Reason, and it is similar to that of natural forces to the extent that it can also serve as the subject of a bivalent clause, as in (??).

(649) kapu-a Pita upia-pie-pa-i-voi uva gau-pa-re-voi
    sore-SG.N Peter pain-CAUS-CONT-3PL\textsubscript{β}-PRES\textsubscript{β} and cry-CONT-3SG.M\textsubscript{β}-PRES\textsubscript{β}
The sore is causing Peter pain and he is crying.

(650) sitoka-irao-pa-ra-i kapu-a iava
    intense.pain-INTEN-CONT-1SG\textsubscript{α}-PRES\textsubscript{α} pain-SG.N POST
I’m in intense pain from the sore.

Like the thematic role of Agent, the thematic role of Instrument also plays a role in the causal chain. However, as Frawley (1992:208) observes, instruments “must be acted upon by something else in order to participate in the situation; their energy source is external to them.” The prototypical instrument is therefore an inanimate object wielded by a prototypical agent (Fillmore, 1968). In Rotokas, instruments take the form of an oblique adjunct marked by the postpositional enclitic =ia, as illustrated in (651) through (653).

(651) Tokeiri ora-garu-ro-i kukue iava resa=ia
    Tokeiri RR-shave-3SG.M\textsubscript{α}-PRES\textsubscript{α} head POST razor=LOC
Tokeiri shaved his head with a razor.

(652) Maikol ira kakau vaeke-ro ate-pa-re-voi atepatoa=ia
    Maikol RPRO.3.SG.M cocoa CLASS-PL.CL weigh-CONT-3SG.M\textsubscript{β}-PRES\textsubscript{β} scale=LOC
Michael weighs the cocoa on a scale.

(653) Rarason ragai vura-pa-re-vora tauai vurapava=ia
    Rarason PPRO.1.SG look-CONT-3SG.M\textsubscript{β}-DP\textsubscript{β} distant binoculars=LOC
Robinson looked at me from far away with binoculars.

11.1.1.2 Theme/Patient

The roles of ‘theme’ and ‘patient’ have been defined inconsistently in the literature. Although frequently used interchangeably, some authors distinguish between the two in terms of animacy: while both patients and themes are undergoers, patients are human whereas themes are
non-human, typically inanimate (?). These issues are not entirely terminological, since there
is real debate concerning the nature of the theme/patient in a prototypical transitive situation
(?). In English, for example, a wide variety of semantic roles are associated with objecthood,
as demonstrated by the various example sentences in (654) (Levin, 1999:???).

(654)  The engineer cracked the bridge (patient)
     The engineer destroyed the bridge (patient/consumed object)
     The engineer painted the bridge (incremental theme)
     The engineer moved the bridge (theme)
     The engineer built the bridge (effected object/factitive)
     The engineer washed the bridge (location/surface)
     The engineer hit the bridge (location)
     The engineer crossed the bridge (path)
     The engineer reached the bridge (goal)
     The engineer left the bridge (source)
     The engineer saw the bridge (stimulus/object of perception)
     The engineer hated the bridge (stimulus/target or object of emotion)

Although it may be worthwhile to distinguish between theme and patient, the distinction
does not appear to be particularly relevant as far as the surface coding properties of Rotokas are
concerned. Verbs that involve a change-of-state in an affected object behave similarly to verbs
that do not, and objecthood encompasses a number of different semantic roles, as illustrated by
(655) through (660).

(655)  erako turu pero-re-vo     Rausiere torara=ia
       firewood CLASS split-3SG.Mβ-1IPβ Rausiere axe=ABL
       Rausiere split the firewood with an axe.

(656)  Kavato aakova=re kasipu-pa-oro itoo kovo teki-re-vo
       Kavato mother=ALL angry-CONT-DEP.SIM banana garden destroy-3SG.Mβ-1IPβ
       Kavato, angry with his mother, destroyed the banana garden.

(657)  Leo kepa kopuasi-pie-re-vo va kipu-oro uva vearo
       Leo house restore-CAUS-3SG.Mβ-1IPβ PPRO.3.SG.N paint-DEP.SIM and good
       keke-pa-i
       look-CONT-PRESα
       Leo restored his house by painting it, and it looks good.
11.1 Semantic Roles in Rotokas

Split Intransitivity

(658) Ravi *kepa pau-re-vo vo-avukarei=pa ra va=ia
Ravi house build-3SG.Mβ-PRESβ SPEC-couple=BEN and PPRO.3.SG=LOC
*uusi-pa-si
sleep-CONT-3DL.M
Ravi is building a house for the couple so that they sleep in it.

(659) porisi-irara oira-to ou-i-voi rera tuuke-sia uvare
police-HUM.PL man-SG.M get-3PL β-PRESβ PRO.3.SG.M jail-DEP.SEQ because
riako-va kopii-pie-re-vora
woman-SG.F die-CAUS-3SG.Mβ-DPβ
The police are getting the man to jail him because he killed a woman.

(660) varo-ara sisiu-ve-vo vokipaua
clothing-PL.N wash-1DL-IPβ morning
We washed the clothes in the morning.

Although a number of potentially distinct semantic roles are found in (655) through (660), there are a few that are systematically absent—namely, source, location, and goal. These spatial roles are realized as oblique arguments rather than direct objects. There is one apparent exception, and this is the construction illustrated in (661) and (662), where ???.

(661) kaakau iava porike ua toe-re-vo Poro uvare kookotu kaviru-e-vo
dog POST tail CL cut-3SG.Mβ-IPβ Paul because chicken steal-3SG.Fβ-IPβ
rera oira-aro
PPRO.3.SG.M PPRO.3.SG.F-POSS
Paul cut the tail of the dog because he bit his chicken.

(662) keetaa oirato iava gasi-i-vo ora-upo-pa-oro vokiaro
jaw man POST break-3PLβ-IPβ RR-fight-CONT-DEP.SIM night
They broke the man’s jaw while fighting at night.

However, examples such as (663) and (664) show that it is not the location encoded as theme in this construction, but rather the affected part of an inalienable possessor, the oblique argument of the postposition *iava.

(663) Vepo koie iava arevu-to ori-re-vo
Vepo pig POST tongue-SG.M cook-3SG.Mβ-IPβ
Vepo cooked pig tongue.
(664) Tovariri votokara iava taea goru-pie-re-voi
   Tovariri car POST tire strong-CAUS-3SG.M_β-PRES_β
   Tovariri strengthened the tire of the car.

   The more general nature of this construction, and its existence outside of the context of a
   transitive clauses, is further illustrated in (665) and (666), where the subject of a monovalent
   verb is an inalienably possessed body part: the monovalent verb kapua ‘have sore’ has the body
   part noun gisipo ‘a’s subject in (665) while the monovalent verb kata ‘be exhausted’ has the
   body part noun vara ua ‘body’ as subject in (666)

(665) gisipo ragai iava kapua-o-i uvare tavute isi aio-a-voi
   mouth PPRO.1.SG POST have_sore-3SG.F_α-PRES_α because mango CL eat-1SG_β-PRES_β
   kopupa isi
   unripe-DERIV CL
   My mouth is sore because I ate a red mango.

(666) ragai iava vara ua kata-piro uvare riro kaekae-vira voka-a-vo
   PPRO.1.SG POST body CL exhaust-COMPL because big long-ADV walk-1SG_β-IP_β
   My skin was exhausted because I walked a long way.

11.1.1.3 Experiencer

The term experiencer is used to describe a number of semantic roles relating to predicates of
thought, belief, perception, and emotion. [CHARACTERIZE ROLE BETTER] In Rotokas, the
experiencer is systematically encoded as subject; however, the stimulus is encoded as direct
object for some verbs and as oblique argument for others.

In verbs of perceptions, the subject corresponds to the experiencer and the direct object to
the stimulus, as illustrated for the verb root vura ‘look, see’ in (667) and (668) and the verb root
siovo ‘feel’ in (669) and (670) (see §??).

(667) ora-ruvu-ro-e uvare rakoru vura-re-vo
   RR-jump-3SG.M_α-IP_α because snake see-3SG.M_β-IP_β
   He jumped because he saw the snake.

(668) kokopuo-vira rutu Tokii vura-pa-a-voi
   distant-ADV very Mt.Bagana look_at-CONT-1SG_β-PRES_β
   I’m looking at Mt. Bagana from afar.
11.1 Semantic Roles in Rotokas

Split Intransitivity

(669) uteo-va siovo-a-vo vokiaro usii-pa-ororo
cold-SG.F feel-1SGβ-IPβ night sleep-CONT-DEP.SIM
I felt cold sleeping at night.

(670) araiva-vira rutu vii uvu-pa-a-voi ovusia reo-pa-u
clear-ADV very PPRO.2.SG hear-CONT-1SGβ-PRESβ while talk-CONT-2SGα
I understand you clearly when you talk.

Verbs of perception show a different valency pattern than psych-verbs [CHARACTERIZE CLASS]. The stimulus corresponds to the oblique argument of psych-verbs. For example, the verb roots *ruipa* ‘desire, want’ and *vasiare* ‘dislike’ encode the stimulus as an oblique argument marked by the postpositional enclitic =pa, as in (671) and (672).

(671) oari=pa ruipa-pa-ra-i riako-va
DEM.DIST.SG.F=BEN desire-CONT-1SGα-PRESα woman-SG.F
I like that woman.

(672) riako-va oira-to=pa vasiare-pa-o-e oa iava oira
woman-SG.F man-SG.M=BEN dislike-CONT-3SG.Fα-IPα hence PPRO.3.SG.F
toe-re-vo
cut-3SG.Mβ-IPβ
The woman disliked the man and that’s why he cut her.

The verb root *kasipu* ‘angry’ also encodes the stimulus as an oblique argument, but it selects for the postpositional enclitic =re, as illustrated in (673).

(673) Rupi ravuru-vira rutu pirati pau-o-e uva aako-va oira=re
Rupi clustered-ADV very peanut plant-3SG.Fα-IPα and mother-SG.F PPRO.3.SG.F=ALL
kasipu-o-i
angry-3SG.Fα-PRESα
Rupi peanut-planted in heaps and her mother was angry with her.

11.1.1.4 Source and Goal

A goal can be defined as ???. The enclitic =re is used to case mark goals, as illustrated by (678) and (679).

(674) Ibu iava aapaapau rovo-ro-epa
ibu POST visit precede-3SG.Mα-RPα
He came first from Ibu to visit.
(675) **Rarasori Rotokas reo** porepore-pie oa urio-ro-era **Averika**
Robinson Rotokas language turn.RDP-CAUS RPRO.3.SG.N come-3SG.M,—? America
*iava*
POST
Robinson came from America to translate the Rotokas language.

In some cases, the enclitic occurs on the word *eisi*, as illustrated in (676) and (677).

(676) ???

(677) **Piopiotoa=ia** ora-aivaro-pie-si-epa oira-toarei ira-vu **eisi=va**
Piopiotoa=LOC RR-meet-CAUS-3DL.M—?? man-DL.M RPRO.3.SG.M-ALT ??==ABL
**Kereaka ara** ira-vu vo==va **Rotokasi-a**
K. but RPRO.3.SG.M-ALT here==ABL Rotokasi-a
Two men met at the clearing, one from Kereaka and another from Rotokas.

(678) **kare-ro-epa** **atoia-re**
return-3.SG.M-RP village/home/banana=ALL
Em i bin go long ples. [Firchow74Sect3Text01.txt:7]

(679) **oire** **kokioto** papao-oro **ava-ro-epa** **vego-aro-re**
okay bird fly-DEP.SIM go-3SG.M—RP._ jungle-POSS=ALL
So the bird flew away into the bush. [ahu_couldnt_go_to_sleep.txt:22]

More common, however, is the use of the postposition *iare*, as illustrated in (680) and (681).

(680) **Risa asia-pa-o-e** **Rake iare** **kare-arapa**
Risa disinclined-CONT-3.SG.F—?? Rake POST return-DEP.SUBJ
Risa doesn’t want to go back to Rake.

(681) **vo-avao** **ava-ei kovoa** **iare**
SPEC-family go— garden POST
The mother and children go to the garden.

An additional strategy is the use of the word *eisi*, as in (682) or (683).

(682) **Riopeiri arao-rei** **ora** **Vaviata ava-si-e** **eisi Buka**
R. brother-DL.M COORD V. go-3DL.M—?? ???? B.
The brothers Riopeiri and Vaviata went to Buka.
11.1 Semantic Roles in Rotokas

11.1.1 Split Intransitivity

(683) aakovatorei ava-si-e  eisi Wakunai usia
parents  go-3DL.M-??? ??? W. market
The parents went to the Wakunai market.

In some cases eisi co-occurs with the allative case marker, as illustrated in (684) and (685).

(684) asia-pa-ra-i  utuarapa eisi-re  kovo-a
 disinclined-CONT-A.1.SG- ???=ALL garden-SG.N
I don’t want to come along to the garden.

(685) ovokivu=ia ava-ra-era  eisi=re  Ibu ovusia ora-upo-pa-a-era
 day=LOC go-A.1.SG-???=ALL Ibu while  RR-flight-CONT--???
One day I went to Ibu while they fought.

11.1.1.5 Recipient/Addressee

One use of the enclitic =pa can be described as benefactive, in the sense that it marks a NP as being the recipient of an action. It is unclear at present whether its use is licensed by particular verbs or whether it can appear anywhere that it is semantically felicitous.

(686) Matari uraura-re-vora  Rarasori uva rera=pa  va
 Matari photograph-3SG.Mβ-DPβ Robinson and PRO.3.SG.M=BEN PRO.3.SG.N
 vate-re-vora
give-3SG.Mβ-DPβ
Robinson photographed Matan and gave it to him.

Sometimes lumped together with the role of recipient, the addressee is also encoded as an oblique, although it does not occur with the enclitic =pa but rather with the enclitic =re, as illustrated for three different verbs of speaking: pura ‘say’, tavi ‘tell’, and reo ‘speak’.

(687) apeisi pura-u-e  Raki ragai=re
 what  say-2SG.a-1P.a Raki PRO.1.SG=ALL
Raki, what did you say to me?

(688) ragai  tare-raga-pa-a-vo  aako=re  raivaruvare  ragai
 PRO.1.SG wait_for-only-CONT-1SG.β-1P.β mother=ALL road  because PRO.1.SG
 tavi-e-vora
tell-3SG.Fβ-DPβ
I waited in vain for my mother on the road because she told me.
(689) *Riki tavavaia-pie-i-voi rerare reoreo-pa-orο*

Riki frustrated-CAUS-3PL β-PRES β PPRO.3.SG.M speak.RDP-CONT-DEP.SIM

They caused Ricky to be frustrated while talking to him.

### 11.1.2 Conclusion

In §11.1, a number of traditionally recognized semantic roles were examined in an attempt to determine the extent to which they are able to predict the occurrence of $\alpha$ and $\beta$ verbal inflection. [SAY MORE] It must therefore be concluded that the traditionally recognized thematic roles fail to account for the distribution of $\alpha$ and $\beta$ verbal inflection.

It is also questionable how theoretically coherent the entire notion of thematic roles is in the first place. There is long-standing recognition of the theoretical inadequacy of thematic roles (Dowty and Ladusaw, 1988; Dowty, 1989, 1990; van Voorst, 1988; Jackendoff, 1988). The problems discussed in the literature are many and varied but the main shortcomings are some of the following (see Levin and Hovav (2006) for an overview):

- As already seen in §11.1.1.2 in the discussion of the thematic role of Theme or Patient, there are issues concerning how thematic roles are defined and what is the appropriate “grain-size” (Levin and Hovav, 2006:38-41). For example, “force”, “cause”, “reason”, versus “agent”.

- In addition, the thematic roles are not truly independent of one another and obtaining the right generalizations in some case involves ??? (Silverstein, 1976). For example, the thematic role of Stimulus is encoded as object in conjunction with a Perceiver but as subject in conjunction with a Feeler.

- There is long-standing recognition that strict adherence to the strict one-to-one mapping between thematic roles and grammatical arguments is problematic. In response, a multi-tier relation hierarchy has been proposed by some authors (Yip et al., 1987). However, even this does not solve some problems, such as the analysis of “affected agents”–i.e., ???.

We turn now to a more detailed examination of the most problematic aspect of Rotokas with respect to linking, which is its split intransitivity.
11.2 The Semantics of Split Intransitivity in Rotokas

Although the traditionally recognized thematic roles (such as Agent, Patient, etc.) do not provide the framework required to account for the distribution of $\alpha$ and $\beta$ verbal inflection, there is nevertheless some semantic coherence to the split intransitivity of Rotokas. There are three broadly-defined semantic classes of verbs where the distinction between $\alpha$ and $\beta$ monovalent emerges more clearly: verbs of motion (§11.2.1), verbs of bodily process (§11.2.2), and verbs of sound emission (§11.2.3). Each is discussed in turn.

11.2.1 Motion

Verbs of motion are verbs that lexicalize a motion event—i.e., “a situation containing movement or the maintenance of a stationary location” (Talmy, 1985). Talmy (1975, 1985) distinguishes between various components in the semantics of motion, listed in (690).

(690) moved object figure vs. ground
- location source, path, goal
- manner ???
- cause ???

Verbs of motion in Rotokas do not all belong to the same verb class. While some monotransitive verb roots denoting a motion event fall into class $\alpha$ others fall into class $\beta$. For example, the verb root *ava* ‘go’ shows $\alpha$ agreement, as in (691), whereas the verb root *voka* ‘walk’ shows $\beta$ agreement, as in (692).

(691) Riopeiri kakae vure voka-pie-pa-ororava-ro-e raiva=ia
  Riopeiri child FP walk-CAUS-CONT-DEP.SIM go-3SG.M$_{\alpha}$-IP$_{\alpha}$ road=LOC
  Riopeiri went on the road walking the children.

(692) Jon kovuru-vira voka-pa-re-voiraiva=ia
  Jon cross-ADV walk-CONT-3SG.M$_{\beta}$-IP$_{\beta}$ road=LOC
  John walked crossing the road.

What appears to distinguish motion of verbs with $\beta$ agreement from motion verbs with $\alpha$ agreement is that they lexicalize manner of motion. The verbs of motion that show $\alpha$ agreement are more schematic verbs of motion whereas the verbs of motion that show $\beta$ agreement are more semantically restricted, having a manner component. This emerges fairly clearly from the list of monovalent verbs of motion provided in Table 11.2.
11.2 The Semantics of Split Intransitivity in Rotokas

<table>
<thead>
<tr>
<th>Class α</th>
<th>Class β</th>
</tr>
</thead>
<tbody>
<tr>
<td>ava ‘go’</td>
<td>aata ‘swim’</td>
</tr>
<tr>
<td>iipa ‘ascend’</td>
<td>gosigosi ‘limp’</td>
</tr>
<tr>
<td>ira ‘go first, precede’</td>
<td>ikau ‘run, speed’</td>
</tr>
<tr>
<td>kare ‘return’</td>
<td>kapere ‘swim on surface’</td>
</tr>
<tr>
<td>koata ‘enter’</td>
<td>papa ‘fly’</td>
</tr>
<tr>
<td>kosi ‘go out, exit’</td>
<td>paru ‘flow, move, go, run’</td>
</tr>
<tr>
<td>kove ‘fall, drop’</td>
<td>raurau ‘sway back and forth’</td>
</tr>
<tr>
<td>urio ‘come’</td>
<td>roko ‘enter jungle’</td>
</tr>
<tr>
<td>vara ‘descend’</td>
<td>tou ‘be, live, reside’</td>
</tr>
<tr>
<td>varu ‘go up’</td>
<td>viku ‘go to garden’</td>
</tr>
<tr>
<td>vore ‘return’</td>
<td>voka ‘walk’</td>
</tr>
<tr>
<td></td>
<td>vusi ‘rush out, erupt’</td>
</tr>
</tbody>
</table>

| Table 11.2 Monovalent Verb Roots of Motion in Rotokas |

The literature on unaccusativity contains a number of discussion of verbs of motion. [CITE LITERATURE]

11.2.2 Bodily Process

Verbs describing bodily processes (e.g., coughing, sneezing, breathing, defecating, etc.) have been singled out in nearly every discussion of unaccusativity—e.g., Merlan (1985:350)’s discussion of “verbs of bodily function and process” or Rosen (1984:64)’s discussion of “processes whose domain is an animate body”.

In Rotokas, the α/β distinction cuts across the class of bodily process verbs. Some verbs describing bodily processes show α-agreement while others show β-agreement. For example, the verb roots vavau ‘breathe’, voevoe ‘belch, burp’, and eavi ‘ooze pus’ are α, as illustrated by (693) through (695).

(693) oearo-vu vuri geesi-vira vavau-pa-a-veira
PPRO.3.PL-ALT bad smell-ADV breathe-CONT-3PLα-HAB
Some people have bad breath (literally: breathe in a bad-smelling manner).

(694) oira-to voevoe-pa-ro-i
man-SG.M belch-CONT-3SG.Mα-PRESα
The man is belching.

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11.2 The Semantics of Split Intransitivity in Rotokas

(695) sipareo vii iava eavi-pa-o-i
   finger PRO.2.SG POST ooze_pus-CONT-3SG.F.\(\alpha\)-PRES\(\alpha\)
Your finger is oozing pus.

However, other verbs of bodily process show \(\beta\) agreement. For example, the verb roots ritoko ‘defecate (pig)’, puu ‘fart’, and opoko ‘defecate (generic)’ show \(\beta\) agreement, as illustrated in (696) through (697).

(696) ragai rera-aro koie-to ritoko-pa-re-vora evoa
   PRO.1.SG PPRO.3.SG.M-POSS pig-SG.M defecate-CONT-3SG.M.\(\beta\)-DP\(\beta\) there
   My pig defecated over the there. [Firchow (1984)]

(697) Seseva riro-vira puu-e-vo uva oira agesi-i-vo oira-ra
   Seseva big-ADV fart-3SG.F.\(\beta\)-IP\(\beta\) and PPRO.3.SG.F laugh-3PL.\(\beta\)-IP\(\beta\) man-HUM.PL
   Seseva ripped a big fart and people laughed at her.

(698) aako-va kakae-to iava takato vera-pa-e-voi uvare
   mother-SG.F child-SG.M POST dangling_turd remove-CONT-3SG.F.\(\beta\)-PRES\(\beta\) because
   opoko-re-vo
   defecate-3SG.M.\(\beta\)-IP\(\beta\)
   The mother wiped a dangling turd from the child because he defecated.

There is at least one verb whose classification is unclear. It shows \(\alpha\) agreement in an example sentence found in Firchow (1984), provided in (699), but \(\beta\) agreement in (700). It is unclear whether this represents a mistake, a change in classification, or inter-speaker variability; however, it does not represent the norm, which is for a verb to be assigned uniquely to one of the two classes of subject agreement.

(699) repoo-pa-ro-i
   hiccup-CONT-3SG.M.\(\beta\)-PRES\(\beta\)
   He is hiccupping. [Firchow (1984)]

(700) Karevaute repoo-re-voi
   Karevaute hiccup-3SG.M.\(\beta\)-PRES\(\beta\)
   Karevaute is hiccuping.

A full list of verbs of bodily process and their classification as \(\alpha\) or \(\beta\) is provided in Table 11.3.
11.2 The Semantics of Split Intransitivity in Rotokas

<table>
<thead>
<tr>
<th>Class $\alpha$</th>
<th>Class $\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>asige ‘sneeze’</td>
<td>opoko ‘defecate (generic)’</td>
</tr>
<tr>
<td>eavi ‘bleed’</td>
<td>eeko ‘defecate (human)’</td>
</tr>
<tr>
<td>kokoisi ‘sweat, perspire’</td>
<td>pigo ‘defecate (chicken)’</td>
</tr>
<tr>
<td>kuuri ‘grunt, huff and puff’</td>
<td>puu ‘fart’</td>
</tr>
<tr>
<td>repoo ‘hiccup’</td>
<td>ritoko ‘defecate (pig)’</td>
</tr>
<tr>
<td>revasi ‘bleed’</td>
<td>tugisi ‘defecate (dog)’</td>
</tr>
<tr>
<td>vagoto ‘cough’</td>
<td>tupi ‘defecate (rat or insect)’</td>
</tr>
<tr>
<td>vavau ‘breathe’</td>
<td>voakou ‘excrete (urine or feces)’</td>
</tr>
<tr>
<td>voevoe ‘belch’</td>
<td>viviko ‘urinate’</td>
</tr>
</tbody>
</table>

Table 11.3 Bodily Process Verbs in Rotokas

Table 11.3 shows that verbs of bodily process are not uniform with respect to verb classification in Rotokas. Verbs of excretion are uniformly $\beta$ and all other verbs describing bodily processes are $\alpha$. The verbs of excretion in fact represent a hierarchy of lexical hyponymy (Cruse, 1986), as shown in (701).

(701)

\[
\begin{tikzpicture}
  \node {voakou ‘excrete’} [grow=right]
  child {node {viviko ‘urinate’} [grow=right]
    child {node {eeko ‘defecate’} [grow=left]
      child {node {human}}
      child {node {tugisi ‘defecate (dog)’} [grow=right]
        child {node {dog}}
        child {node {ritoko ‘defecate (pig)’} [grow=right]
          child {node {pig}}
          child {node {tupi ‘defecate (rat or insect)’} [grow=right]
            child {node {rat or insect}}}}}
    child {node {opoko ‘defecate (generic)’}}}
  child {node {ritoko ‘defecate (pig)’}}}

11.2.3 Sound Emission

There is another semantic field that is found within the class of $\beta$ intransitives, and these are verbs of sound emission (Snell-Hornby, 1983; Levin and Hovav, 1995a). Verbs of sound emission are verbs whose primary meaning involves the emission of sound (e.g., creak, groan, or rumble in English). They can be distinguished from speech act verbs, whose primary meaning revolves around a communicative act, which typically involves sound as the medium, but not necessarily. For example, in (702) and (703), there is no involvement of sound as the medium of communication in the use of the speech act verb root tavi ‘tell’.

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11.2 The Semantics of Split Intransitivity in Rotokas

(702) *roo iava ito-to vao guru-va vevei oa*
DEM.PROX.SG.M POST banana-SG.M DEM.SG.N leaf-SG.F yellow RPRO.3.SG.N

*ragai tavi-pa-i oiso kopi-pa-i vo-guru-va*
PRO.1.SG tell-CONT-3PL.α COMP die-CONT-PRES.α SPEC-leaf-SG.F

The yellow leaf of this banana tells me that the leaf is dying.

(703) *vuuta keke-pa-to igei tavi-pa-re-veira oiso voki-ei o*
time look-DERIV-SG.M PRO.1.PL.EXCL tell-CONT-3SG.M.β-HAB COMP day-PRES.α or

*ravire vuuta o avi-ei*
sun time or light-PRES.α

The clock tells us that it is night or daytime or morning.

Verbs of sound emission in Rotokas are split between α and β agreement. While some verbs of sound emission show α agreement (e.g., *era* ‘sing in a high pitch’), others show β agreement (e.g., *pupi* ‘sing and dance with wind instruments’), as can be seen in Table 11.4.

(704) *riako-ra karapi-vira era-pa-a-veira era-ara rutu=ia vo-voki-ro*
woman- highpitched-ADV sing-CONT-3PL.α-HAB song-PL.N very=LOC SPEC-day-
rutu=ia

very=LOC
The women sing all of the songs in a high pitch every day.

(705) *Voitari oisioa riro-va=va avurara pupi-pa-re-ve*

Voitari always big-SG.F=COM large.axe sing-CONT-3SG.M.β-SUB
Voitari always sings with a big axe.

Table 11.4 provides a listing of various verbs of sound emission, classified according to whether they show α or β agreement.
## 11.2 The Semantics of Split Intransitivity in Rotokas

<table>
<thead>
<tr>
<th>Class α</th>
<th>Class β</th>
</tr>
</thead>
<tbody>
<tr>
<td>era ‘sing’</td>
<td>aka ‘open the mouth, shout’</td>
</tr>
<tr>
<td>geuru ‘snarl and spit’</td>
<td>gau ‘cry, weep’</td>
</tr>
<tr>
<td>giigiirau ‘groan’</td>
<td>gipugipu ‘whimper’</td>
</tr>
<tr>
<td>karapi ‘sing high pitched’</td>
<td>guruko ‘make noise’</td>
</tr>
<tr>
<td>koi ‘high pitched sound’</td>
<td>kakupie ‘shout, yodel’</td>
</tr>
<tr>
<td>kovovae ‘sing’</td>
<td>kapuu ‘dumb, not speaking’</td>
</tr>
<tr>
<td>koova ‘sing and dance’</td>
<td>koi ‘groan with pain’</td>
</tr>
<tr>
<td>kovokovo ‘play Jew’s Harp’</td>
<td>kokoroku ‘crow’</td>
</tr>
<tr>
<td>kuuri ‘grunt, huff and puff’</td>
<td>kukuuku ‘make footfall’</td>
</tr>
<tr>
<td>ogaaga ‘whisper, talk quietly’</td>
<td>pegu ‘bark’</td>
</tr>
<tr>
<td>oive ‘shout, yodel, yell’</td>
<td>pupi ‘play bamboo pipes’</td>
</tr>
<tr>
<td>ruvaku ‘low pitch, bass’</td>
<td>vekaveka ‘gasp, breath heavily’</td>
</tr>
<tr>
<td>siiguru ‘drum, beat drum’</td>
<td>vaavau ‘make noise, make a ruckus’</td>
</tr>
<tr>
<td>sirava ‘hiss’</td>
<td></td>
</tr>
<tr>
<td>utave ‘blow Triton’s trumpet’</td>
<td></td>
</tr>
<tr>
<td>vepe ‘yell’</td>
<td></td>
</tr>
<tr>
<td>vikuta ‘whistle’</td>
<td></td>
</tr>
<tr>
<td>viokeke/viokoko ‘whistle’</td>
<td></td>
</tr>
</tbody>
</table>

Table 11.4 Sound Emission Verbs in Rotokas

As observed in Levin et al. (1997), verbs of sound emission have not received a great deal of attention in the typological literature, and they are largely absent from discussions of unaccusativity.

### 11.2.4 Inferred Causation

There are a number of monovalent β verbs that do not fit neatly within the semantic domains discussed in the previous sections. For example, the verbs aviavi ‘light up’, exemplified in (706), or sipokoro ‘sprout’, exemplified in (707) (which lacks subject agreement due to the fact that its subject is neuter but can be identified as β from the TAM marking).

(706) **aviavi-re-voi**  
parakau-oro   uva oira-ra ora-sita-a-i
lightning-3SG.M_β-PRES_β  spread-DEP.SIM and man-  RR-startle-3PL_β-PRES_β
vaasia-vira  
strong?-ADV

The lightning is lighting up the sky and people are startled.
11.2 The Semantics of Split Intransitivity in Rotokas

(707) **kukara takura-aro sipokoro-voi**

    corn  seed-POSS sprout-PRES_β

The corn seed is sprouting.

The semantic commonality of the remaining monovalent verb roots that show β agreement is not as easily pinned down. These verbs denote events that can be conceptualized as arising from inherent properties of the entity participating in the event, such as lightning flashing, seeds growing, fire producing smoke, etc. These verb roots are listed below in Table 11.5.

<table>
<thead>
<tr>
<th>Verb Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>goagoa</td>
<td>skin</td>
</tr>
<tr>
<td>koke</td>
<td>make rain</td>
</tr>
<tr>
<td>kovo</td>
<td>work, garden</td>
</tr>
<tr>
<td>kukuuku</td>
<td>make footfall</td>
</tr>
<tr>
<td>kupare</td>
<td>smoke, produce smoke</td>
</tr>
<tr>
<td>parakau</td>
<td>light up, spread across an expanse</td>
</tr>
<tr>
<td>pika</td>
<td>splash</td>
</tr>
<tr>
<td>raraka</td>
<td>become light</td>
</tr>
<tr>
<td>roru</td>
<td>happy, glad, pleased</td>
</tr>
<tr>
<td>ruu</td>
<td>stop</td>
</tr>
<tr>
<td>sikere</td>
<td>streak of light, start to shine, dawn</td>
</tr>
<tr>
<td>sipokoro</td>
<td>sprout through surface</td>
</tr>
<tr>
<td>sipukao</td>
<td>sprout</td>
</tr>
<tr>
<td>sipusipu</td>
<td>grow, shoot up</td>
</tr>
<tr>
<td>sirasiru</td>
<td>shiny</td>
</tr>
<tr>
<td>siruvau</td>
<td>good-looking, nice appearance</td>
</tr>
<tr>
<td>sisikore</td>
<td>shine, gleam, glisten</td>
</tr>
<tr>
<td>ukauka</td>
<td>swish around, splash around</td>
</tr>
</tbody>
</table>

**Table 11.5** β Monovalent Verbs of Internal Causation

This semantic class is not as widely recognized in discussion of split intransitivity as verbs of motion or bodily processes, but it is an interesting class, since—unlike the other semantic classes discussed in the previous section—the verb roots in it do not denote events that necessarily involve an agent (e.g., *kupare* ‘smoke’), and in some cases are incompatible with an agent (e.g., *ukauka* ‘swish, splash’). A particularly insightful discussion of these event types and their treatment in languages with split intransitivity can be found in DeLancey (1985). DeLancey (1985) observes that some types of predicates (e.g., “sneeze”) can be conceptualized as events which cause discrete results, much like transitive predicates. For example, predicates such as
“bleed”, “vomit”, or “sweat” produce physical products. This provides a way of understanding the “agentivity” of verbs such as those listed in Table 11.5.

We can also easily accommodate the ambiguity of the ‘sparkle’ class of predicates, which according to Rosen’s observation sometimes predicate agentivity of their argument in spite of the fact that volition is not only absent but impossible, for here too there is an aspect of the event—the sparkle, in the case of that predicate—which can be conceptualized as simply the perceptual manifestation of the event denoted by the predicate or as a distinct product of the event of sparkling. DeLancey (1985:9)

11.2.5 Discussion

In the previous sections, the various monovalent verb roots that show β agreement were grouped into a number of semantic fields. These semantic fields are not exhaustive, in the sense that there are a number of monovalent verb roots that show β agreement which do not obviously fit into any of these semantic fields. For example, the verb root roru ‘be happy’ does not obviously fit into any of the semantic fields already identified.

(708) uva roru-a-voi rutu uvare vii ragai tauva-ri
    and be_happy-1SGβ-PRESβ very because PRO.2.SG PRO.1.SG help-2SGβ
    I am glad, because you helped me. [Firchow (1984)]

Likewise, the verb root tou ‘to be, exist’ also fails to fit neatly into the previously discussed semantic fields. Although it could be construed as a verb of motion, to the extent that denotes a lack of motion, there is no manner component, and its meaning is quite bleached, in many cases serving more or less as a copula, as in (709) or (710).

(709) Tutue pukui kaepie-vira tou-pa-i-voi
    Tutue mountain high-ADV be-CONT-3PLβ-PRESβ
    Mount Balbi is up high.

(710) riako-va pugu-pa-vira tou-pa-e-voi uvare kakae-to
    woman-SG.F pregnant-DERIV-ADV be-CONT-3SG.Fβ-PRESβ because child-SG.M
    The woman is pregnant because a child is inside of her belly.
11.3 Theoretical Background

Split Intransitivity

It is difficult to extract a single semantic parameter that is common to the various semantic fields identified. While there is a striking “family resemblance” (?) among the various monovalent verb roots that show $\beta$ agreement, it is difficult to articulate a set of necessary and sufficient conditions. In the following section, a brief overview of the typological literature on semantic intransitivity will be provided, concentrating on the semantic basis for those systems that have been described in some depth.

11.3 Theoretical Background

The topic of split intransitivity has received a good deal of attention in the typological literature (Merlan, 1985; Van Valin Jr., 1990; Dixon, 1994; Mithun, 1999; Foley, 2005). Split intransitivity can be defined as the general phenomenon where intransitive verbs are heterogenous with respect to their grammatical behavior, typically such that one subclass of intransitive subjects behaves like transitive subjects while another subclass of intransitive subjects behaves like transitive objects. Using the grammatical primitives of S, A, and O (Dixon, 1979; Andrews, 1985; Dixon, 1994), the various possibilities for the alignment of grammatical roles can be represented diagrammatically as in Table 11.6.

Using this fairly broad definition of the term, “split intransitivity” encompasses a number of phenomena described using different terminology in the literature, such as “split ergativity” (Dixon, 1979), “case marking splits” (Tsunoda, 1981), “active-inactive” (Danziger, 1996), or “active-stative alignment” (Mithun, 1991).

Dixon (1994) draws a useful distinction between two types of split-intransitivity: split-S systems and fluid-S systems:

Languages that distinguish between $S_a$ and $S_o$, as subtypes of $S$, are of two kinds. The first kind are like ergative and accusative languages in having syntactically
based marking of core constituents... Each verb is assigned a set syntactic frame, with case marking or cross-referencing always being done in the same way, irrespective of the semantics of a particular instance of use. We call such a system ‘split-S’. The second kind employs syntactically based marking for transitive verbs, but employs semantically based marking ... just for intransitive verbs – an intransitive subject can be marked as $S_a$ (i.e., like $A$) or as $S_o$ (like $O$) depending on the semantics of a particular instance of use. We can call this a ‘fluid-S’ system.

The difference between these two systems has to do with the degree to which the alignment of $S$ with either $A$ or $O$ is productive. In a split-S system, the class of intransitive verbs is split between the two subclasses—i.e., a particular intransitive verb is either of the type $S_A$ or of the type $S_O$. In a fluid-S system, however, there is fluidity of assignment to the two classes. A particular intransitive verb can be assigned to either one of the two classes, depending upon the semantic of individual tokens.

Fluid-S systems appear to be much more rare, and clear-cut instances of them are few in number. There are a number of arguable cases (e.g., ???), which we will ignore, and a few fairly clear-cut ones, such as Acehnese (Durie, 1985, 1987), Eastern Pomo (McLendon, 1978), and Tsova-Tush (Holisky, 1987). Split-S systems are far more common; all of the following languages have been characterized as such: ???, ???, ???, ???, ???, ???.

Dixon (1994:75) observes that, “Careful study of the grammars of split-S languages shows that they do work in terms of a unitary $S$ category with this being subdivided, for certain grammatical purposes, into $S_A$ and $S_O$.” However, it is unclear how to distinguish a unitary category of $S$ that is split for certain purposes from a non-unitary category of $S$ that results from the conjunction of two distinct categories. The problem is particularly acute in the case of the Austronesian language Acehnese, discussed in Durie (1985, 1987, 1988). In Acehnese, it has been argued that grammatical relations of $S$, $A$, and $O$ do not exist (Durie, 1985). Rather, there are simply two semantic categories, Agent and Patient.

[DISCUSS ACHEHNESE]

Dixon (1994) argues that it is nevertheless still possible to posit a grammatical relation of subject:

It may be that for Acehnese the only viable definition of ‘subject’ is his Actor (the concatenation of $A$ and $S_o$, in my terms) which is in fact defined grammatically, in terms of its cross-referencing properties, but is a grammatical category with a relatively simple and unusually consistent semantic characterisation.
Although the approach advocated in Dixon (1979, 1994) is attractive from a purely descriptive standpoint, it leaves a number of important theoretical issues unresolved. First, the syntactic status of S, and any subclasses of it, is left unclear. What does it mean for “???”? Second, it is largely unconstrained as far as the semantic motivation of S_a and S_o is concerned. These issues will resurface in the subsequent literature on split intransitivity.

11.3.1 Merlan (1985)

One of the earliest typological treatments of split intransitivity is that of Merlan (1985), which examines a handful of languages that possess split intransitivity—namely, ???, ???, and ???.

On the basis of these languages, Merlan (1985) draws a number of broad conclusions:

- **smaller class restricted to animates** “The specialized intransitive lexical subclass will contain (with few or no exceptions) verbs requiring animate subject; the distributionally unmarked intransitive class(es) will not be unitarily specifiable as to animacy of the subject.” (p. 350)

- **verbs of bodily function and process** “The specialized intransitive lexical class will contain some verbs of bodily function and process...” (p. 350)

- **subjective inflection associated with agentivity** “If the specialized intransitive class requiring animate subject is coded by subjective inflectional forms, verbs in the class will be composed partly, perhaps principally, of verbs in which the semantic relation of NP to verb is agentive to neutral...” (p. 350)

- **objective inflection associated with patienthood** “If a language marks the specialized intransitive class requiring animate subject by means of object pronominals, the verbs contained within it will be principally of a kind to which the subject has a netural to patientive relation.” (p. 350)

- **verbs of physical sensation and perception have objective tendencies** “Some verbs of physical sensation and perception are likely to be within the objective class...” (p. 350-351)

Finally, Merlan (1985) makes a fairly strong claim concerning the expected alignment of semantic and grammatical roles:

“No languages will be found in which the restricted class is objectively inflecting and the verbs in it are primarily of the kind in which the subject bears an agentive
relation to the verb. Nor will the reverse situation be found, in which a smaller class
of subjectively inflecting intransitive contains verbs for which the semantic relation
of the subject to the verb is primarily patientive.” (p. 350)

Of the various typological generalization made by Merlan (1985) that have been made con-
cerning split intransitivity, the following two hold true of Rotokas:

- The class of $\beta$ monovalent verbs is smaller than the class of $\alpha$ monovalent verbs.
- The class of $\beta$ monovalent verbs includes numerous verbs of bodily function and process.

However, her generalizations concerning the association of agency and patienthood with
the two intransitive verb subclasses does not appear to hold true, since there are $\alpha$ monovalent
verbs that are not clearly patientive (e.g., ava ‘go’) and $\beta$ monovalent verbs that are not clearly
agentive (e.g., sisikore ‘gleam’). But the vagueness of the terms “agentive” or “patientive”
makes it very difficult to judge the extent to which these generalizations hold true. In other
words, before a semantically-oriented theory of split intransitivity can be provided, a more
explicit account of the semantics of “agent” and “patient” (among other categories) must be
worked out.

11.3.2 Rosen (1984)

A constant thread in the literature on split intransitivity is debate over the extent to which the
phenomenon is amenable to a purely semantic explanation. Rosen (1984) examines split in-
transitivity within the framework of Relational Grammar (RG) and explicitly rejects a purely
semantic account as part of a wide claim concerning the need for grammatical relationals in
syntactic representation. More specifically, she claims that “there is no regular homomorphism
between semantic representation and initial GRs, that one cannot equate these two concepts,
and that frameworks which do are necessarily inadequate” (p. 38-39).

This claim stands in opposition to what Rosen (1984:40) describes as the “Universal Align-
ment Hypothesis”, provided in (711).

(711) “There exists some set of universal principles on the basis of which, given the semantic
representation of a clause, one can predict which initial GR each nominal bears”.

Rosen (1984:53) also examines a weaker version of the “Universal Alignment Hypothesis”,
provided in (712), which weakens the strong claim for universality of alignment and restricts
its application to particular languages.
11.3 Theoretical Background

Split Intransitivity

(712) For any one predicate in any one language, there is a fixed mapping which aligns each semantic role with an initial GR. The alignment remains invariant for all clauses with that predicate.

In order to evaluate (711) and (712), Rosen (1984) examines a handful of languages: Italian, Sanskrit, and Chowctaw, Dutch, Lakota, and Turkish.

Although Relational Grammar is largely a defunct theory of grammar (see ? for further discussion), the issue of the predictability of grammatical alignment on the basis of semantic roles is central to the analysis of split intransitivity. While Rosen (1984) argues for an account of split intransitivity that is semantically motivated but syntactically represented, Van Valin Jr. (1990) argues that the phenomenon is purely semantic.

11.3.3 Van Valin Jr. (1990)

One of the more sophisticated theories of split intransitivity has been developed within the framework of Role and Reference Grammar (RRG) (Foley and Van Valin, 1984; Van Valin, 1984; Van Valin Jr., 1987, 1990; Van Valin and LaPolla, 1997).

Van Valin Jr. (1990) argues that the various phenomena which the Unaccusative Hypothesis (UH) is meant to explain are better understood in semantic (rather than syntactic) terms. It argues against the Relational Grammar (RG) and Government-Binding (BG) accounts of split-intransitivity.

“According to the UH there are two types of intransitive verbs, and in both theories the differences between them are characterized in purely syntactic terms: in one type the surface object is also the underlying subject, and in the other the surface subject is the underlying direct object.” (Van Valin Jr., 1990:221)

Van Valin Jr. (1990) concludes that “split-intransitive phenomena provide no evidence of analyzing the subject of class-S_o verbs as underlying syntactic object”.

Using the RRG approach to split intransitivity, Foley (2005) examines the phenomenon in a number of languages in the Austronesian family: Acehnese, Tolai, three Maluku languages (Dobel, Larike, and Taba), and the Philippine languages Kimaragang and Tagalog.

Foley and Van Valin (1984) proposes a hierarchy of accessibility to the macro-roles [EXPLAIN WHAT THESE ARE], provided in Table 11.8. [WHAT IS IT MEANT TO EXPLAIN?]
Foley (2005) claims that the unergative/unaccusative division varies across languages according to where in the hierarchy of Figure 11.8 the line is drawn between the two classes.

Table 11.7 Macro-Role Hierarchy from Foley and Van Valin (1984)

<table>
<thead>
<tr>
<th>Actor</th>
<th>Undergoer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent (volitional)</td>
<td>Effector (case)</td>
</tr>
<tr>
<td>Locative</td>
<td>Theme (movement)</td>
</tr>
<tr>
<td></td>
<td>Patient (change of state)</td>
</tr>
</tbody>
</table>

Table 11.8 Revised Macro-Role Hierarchy from Foley (2005)

<table>
<thead>
<tr>
<th>Actor</th>
<th>Undergoer</th>
</tr>
</thead>
<tbody>
<tr>
<td>volitional performer</td>
<td>undergoing a change of state</td>
</tr>
<tr>
<td>causing an event or change of state</td>
<td></td>
</tr>
<tr>
<td>sentience</td>
<td></td>
</tr>
<tr>
<td>movement</td>
<td></td>
</tr>
<tr>
<td>stationary</td>
<td></td>
</tr>
<tr>
<td>causally affected</td>
<td></td>
</tr>
<tr>
<td>incremental theme</td>
<td></td>
</tr>
</tbody>
</table>

Foley (2005:394): “In Acehnese it is not restricted to participants volitionally performing an event ... but also those having the power to volitionally case doing an event, even if the actual instigation of the event was not done volitionally. Consider batōk ‘cough’, which is a basic unergative verb with an actor macro-role.”

Table 11.9 Rotokas According to the Revised Macro-Role Hierarchy

<table>
<thead>
<tr>
<th>Actor</th>
<th>Undergoer</th>
</tr>
</thead>
<tbody>
<tr>
<td>volitional performer</td>
<td>undergoing a change of state</td>
</tr>
<tr>
<td>causing an event or change of state</td>
<td></td>
</tr>
<tr>
<td>sentience</td>
<td></td>
</tr>
<tr>
<td>movement</td>
<td></td>
</tr>
<tr>
<td>stationary</td>
<td></td>
</tr>
<tr>
<td>causally affected</td>
<td></td>
</tr>
<tr>
<td>incremental theme</td>
<td></td>
</tr>
</tbody>
</table>
11.3.4 Mithun (1999)

Mithun (1999) discusses split intransitivity in three languages of the Americas—namely, Guarani (colloquial), Lakhota, and Central Pomo. [GIVE EXAMPLES]

Mithun (1999) proposes that the verbs in these languages can be divided into classes on the basis of their specification for a number of features, listed below:

**Event** This feature refers to the aspectual classification of a predicate, following the widely recognized distinction between events and states discussed by Vendler (1967). The relevance of aspect to split intransitivity is widely recognized in the literature—e.g., (Hopper and Thompson, 1980)’s discussion of aspect and punctuality as parameters of semantic transitivity.

**P/E/I** The notion of agency is teased apart. One aspect of it is the performance, effect, and instigation of an action, which is treated as a cluster of properties (which are dissociable at least in theory). [SAY MORE]

**Control** Another aspect of agency is the notion of control. The notion of control is also brought up in Dixon (1994), who defines control in terms of the semantic role that is “most relevant to the success of the activity”: “the semantic role of a verb which is most relevant to the success of the activity (if human: which could initiate or control the activity) is linked to A function; and that role which is most saliently affected by the action is linked to O relation” (Dixon, 1994:29)

**Affectedness** The last feature refers to the affectedness of the intransitive actor. This feature has been a recurrent theme in the literature of transitivity, and is considered by some to be the sine qua non of semantic transitivity. Unlike the other features, which are orthogonal to one another, this feature is applied only to stative verbs by Mithun (1999).

The combination of these features identifies a number of verb classes, which are listed with their feature analysis in Table 11.10.
### Table 11.10 Analysis of Verb Classes By Semantic Features

<table>
<thead>
<tr>
<th>Illustrative Verbs</th>
<th>Event</th>
<th>P/E/I</th>
<th>Control</th>
<th>Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>c ‘fall’, ‘die’, ‘slip’</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>n.a.</td>
</tr>
<tr>
<td>d ‘reside’, ‘be prudent’, ‘be patient’</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>n.a.</td>
</tr>
<tr>
<td>e ‘be tall’, ‘be strong’, ‘be righthanded’</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>f ‘be sick’, ‘be tired’, ‘be cold’</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>

Source: Mithun (1991:524)

Although Mithun (1999) does not provide labels for the various configurations assumed in her analysis, the implicitly recognized verb classes might be characterized as follows:

- **motion** ‘jump’, ‘go’, ‘run’
- **bodily process** ‘hiccough’, ‘sneeze’, ‘vomit’
- **uncontrolled event** ‘fall’, ‘die’, ‘slip’
- **controlled state** ‘reside’, ‘be prudent’, ‘be patient’
- **inherent property** ‘be tall’, ‘be strong’, ‘be righthanded’
- **affected state** ‘be sick’, ‘be tired’, ‘be cold’

In the case of Guarani and Lakhota, she concludes that a single semantic parameter governs the split. In the case of Central Pomo, however, she concludes that there are in fact two features at play. This is illustrated in Table 11.11.

### Table 11.11 Semantic Features in Three Split Intransitive Languages

<table>
<thead>
<tr>
<th>Guarani</th>
<th>Lakhota</th>
<th>C. Pomo</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Event</strong></td>
<td><strong>P/E/I</strong></td>
<td><strong>Control</strong></td>
</tr>
<tr>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>unerg</td>
<td>unacc</td>
<td>unerg</td>
</tr>
<tr>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>unerg</td>
<td>unacc</td>
<td>Affectedness</td>
</tr>
<tr>
<td>-</td>
<td>+</td>
<td>unerg</td>
</tr>
</tbody>
</table>

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There are a few points to make concerning Table 11.10. First, the features discussed by Mithun are not completely independent of one another, especially performance/effect.Instigation and control, which are two facets of a broader notion of agency. This may explain why Mithun does not discuss all of the logically possible combinations of these features. For example, Mithun does not discuss two types of non-event predicates predicted by her features: plus PEI and minus Control vs. minus PEI and plus Control. Second, it is unclear how these features interrelate. The feature of Affectendness is invoked only in the analysis of Central Pomo, but is ignored for the other languages.

How well do Mithun’s proposed feature account for the split intransitivity found in Rotokas? Table 11.12 provides a listing of translation equivalents for the verbs in the various classes discussed by Mithun (1991). In some cases there is more than one translation for a particular gloss, given the existence of additional distinctions in the Rotokas lexicon—for example, there are three verbs that could be loosely glossed as ‘jump’.
### Illustrative Verbs

<table>
<thead>
<tr>
<th>Verbs</th>
<th>Verb Class</th>
<th>Event</th>
<th>PEI</th>
<th>Control</th>
<th>Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a</strong></td>
<td>oraviki ‘jump (off)’</td>
<td>α</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>kauo ‘jump’</td>
<td>α</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>taagau ‘jump (over)’</td>
<td>α</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>ava ‘go’</td>
<td>α</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>ikau ‘run’</td>
<td>β</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td><strong>b</strong></td>
<td>repoo ‘hiccup’</td>
<td>α</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>asige ‘sneeze’</td>
<td>α</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>posige ‘half-sneeze’</td>
<td>α</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>oe ‘vomit’ †</td>
<td>α</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td><strong>c</strong></td>
<td>kove ‘fall’</td>
<td>α</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>kopii ‘die’</td>
<td>α</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>piru ‘slip’</td>
<td>α</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>d</strong></td>
<td>tou ‘reside’</td>
<td>β</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>??</td>
<td>‘be prudent’</td>
<td>α</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>??</td>
<td>‘be patient’</td>
<td>α</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td><strong>e</strong></td>
<td>?? ‘be tall’</td>
<td>α</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>goru ‘be strong’</td>
<td>α</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>??</td>
<td>‘be righthanded’</td>
<td>α</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>f</strong></td>
<td>upia ‘be sick’</td>
<td>α</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>raverave ‘be tired’</td>
<td>α</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>ugoro ‘be cold’</td>
<td>α</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>uteo ‘be cold’</td>
<td>α</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

†= ambitransitive

#### Table 11.12 Rotokas Verbs According to the Classes of Mithun (1991:524)

In some cases, a translation equivalent cannot be provided because the Rotoks equivalent is expressed as an adverb, as in (714), or as a noun, as in (715) or (716).

(713) aruvea raga kaakau kakae-ro kavau-e-vo aakova, uva voosi-vira raga yesterday just dog CLASS- give.birth-3.SG.F-?? mother and blind-ADV just tou-pa-i be-CONT-

Just yesterday mother gave birth to dog babies, and they are (temporarily) blind.

(714) uteo-vira vo rupa-o siovo-pa-a-vo cold-ADV ?? night-?? feel-CONT--
I feel this night to be cold.

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(715) Pita era koike-to
Peter PPRO.?? left-handed-SG.M
Peter is left-handed.

(716) torae-aro Tutue pukui riro kaekae-a
???-POSS Balbi mountain big long-SG.N
Mt. Balbi is really tall. (Literally: The height of Mt. Balbi is really great.)

It is probably not accidental either that the classes d and e in particular are the classes for which it is important difficult to find translation equivalents as verbs. [SAY MORE ABOUT THIS]

It should be clear from Table ??, however, that the features discussed by Mithun (1991) do not appear to be the relevant ones for Rotokas. Nearly all of the verbs belong to α and the two exceptions are in disparate classes with no obvious similarity in terms of the set of discussed features. Alternative approaches will now be examined to determine whether they are more illuminating for Rotokas.

11.3.5 The Unaccusative Hypothesis

The formulation of the “Unaccusative Hypothesis” (UH) in Perlmutter (1978) has motivated a great deal of interest in split intransitivity. This hypothesis was originally couched within the framework of Relational Grammar (RG), a multi-stratal theory of grammar in which grammatical relations are primitive. The UH was originally meant to account for the fact that languages differ with respect to the ability of intransitive verbs to form impersonal passives by appealing to initial grammatical relations. One class of intransitives, the unergatives, were proposed to have an initial 1, while another class of intransitives, the unaccusatives, were proposed to have an initial 2. Although the framework of RG is now largely defunct, the split between two classes of intransitives has become widely recognized and much discussed in the literature, since a variety of grammatical phenomena have been found that recognize the distinction. For example, in Italian, verbs take one of two auxiliary forms: either avere ‘have’ or essere ‘be’. Transitive verbs occur with avere, as in (717), while derived intransitives occur with essere, as in (718) and (719).

(717) Mario ha difeso Luigi
Mario has defended Luigi
Mario defended Luigi [Rosen (1984:43)]
(718) *Mario si è difeso*
- Mario is defended
- Mario defended himself. [Rosen (1984:44)]

(719) *Mario si è concesso un momento di riposo*
- Mario is conceded a moment of rest
- Mario allowed himself a moment's rest. [Rosen (1984:44)]

Underived intransitive verbs are split into two classes: some intransitive verbs occur with *avere*, as in (720), while others occur with *essere*, as in (721).

(720) *Mario ha esagerato*
- Mario has exaggerated
- Mario exaggerated. [Rosen (1984:44)]

(721) *La pressione è aumentata*
- the pressure is increased
- The pressure increased. [Rosen (1984:44)]

According to Perlmutter (1978), the difference between unergatives and unaccusatives is syntactically defined but semantically motivated. Since then, there has been considerable debate concerning the semantic motivation of such splits. Rosen (1984), for example, denies that there is a universal semantic motivation, citing the heterogeneous nature of these classes cross-linguistically and the variable behavior of verbs purportedly belonging to one class or another. While some of these objections have been countered (e.g., see Van Valin Jr. (1987, 1990) for a refutation of Rosen’s arguments concerning ‘die’ in Choctaw), the semantic motivation of this distinction is still a matter of some debate.

[MENTION LEVIN WORK]
- Rappaport Hovav and Levin (2000); Levin (2000, 1999); Levin and Hovav (1995b); Levin (1987); Levin and Pinker (1992); Levin et al. (1997); Levin and Hovav (1995a)
- McKoon and Macfarland (2000)

Levin and Hovav (1995b) discuss a linking algorithm that makes reference to the notion of internal versus external arguments. The determination of which argument of a verb is external and which is internal involves the application of the four linking rules provided below:

**Immediate Cause** The argument of a verb that denotes the immediate cause of the eventuality described by that verb is its external argument (i.e., if the verb is intransitive, it will be unergative)
11.3 Theoretical Background

**Directed Change** The argument of a verb that corresponds to the entity undergoing the directed change described by that verb is its direct internal argument. (i.e., if the verb is intransitive, it will be unaccusative).

**Existence** The argument of a verb whose existence is asserted or denied is its direct internal argument.

**Default** An argument of a verb that does not fall under the scope of any of the other linking rules is its direct internal argument.

Although the linking rules of Levin and Hovav (1995b) are consistent with Rotokas, they leave a great deal unexplained. [EXPLAIN HOW]

Furthermore, unaccusativity is generally understood as a syntactic phenomenon, yet there are no known syntactic processes that distinguish monovalent verbs that show $\alpha$ agreement from those that show $\beta$ agreement.
In the previous chapters of the second part of this thesis, the nature of verbal inflection in Rotokas was systematically described. A preliminary hypothesis was put forward concerning the relationship between the two forms of verbal inflection found in Rotokas and grammatical roles. Although the evidence from valency-changing derivations generally supported the view that verbal inflection is predictable on the basis of valency, the behavior of bare verb roots revealed a more complicated picture, due to the existence of split intransitivity. The semantic motivations of split intransitivity were examined and a partially semantically motivated system was described, which was sensitive to a number of the semantic factors described in the typological literature—the usual suspects, as it were. The split between those verb roots that show $\alpha$ agreement and those that show $\beta$ agreement resembles those described for other languages (e.g., ???) but the similarity found is more of a “family resemblance” than a systematic cross-linguistic parameter. The ambivalent nature of split intransitivity in Rotokas has a number of theoretical implications which will be drawn out below.

12.1 ???

Before delving into some of the theoretical issues raised by the facts described here, it is worth summarizing the various construction types associated with $\alpha$ and $\beta$ agreement are listed below in (722).

(722) **Class $\alpha$** monovalent verb roots, labile verb roots with a single core argument, monovalent verb stems derived with -ora, monovalent verb stems derived with -piro or

---

1 ???

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-viro, bivalent verb roots with an incorporated object, monovalent verb roots with an incorporate oblique argument

**Class** $\beta$ monovalent verb roots, bivalent verb roots, labile verb roots with two core arguments, bivalent verb stems derived with -pie

Is there a single parameter which can account for the split between those constructions that show $\alpha$ agreement and those that show $\beta$ agreement. The answer would appear to be negative. The generalization that all verbs with two core argument is complicated by noun incorporation, which does not show the demotion of a core argument to oblique status but rather involves some form of tighter integration between the verb root and the incorporated argument. Furthermore, noun incorporation is not restricted to bivalent verbs but also occurs with monovalent verbs that take oblique arguments.

From a typological perspective, the form of split intransitivity is somewhat novel in a few respects.

Furthermore, there is no identification between one of the two types of subjects and direct objects. There is no verbal agreement for direct objects in Rotokas and direct objects show very different patterns of constituent order than subjects, regardless of whether they are associated with $\alpha$ or $\beta$ agreement.

Van Valin (2006) claims that not all languages possess grammatical relation, citing the case of Acehnese as the counterexample that disproves the rule. However, as Dixon (1994) argues, ??.

Does Rotokas have grammatical relations? Verbs always take their agreement features from a single core argument and it therefore makes sense to posit a grammatical relation of subject. What other grammatical relations need to be posited for Rotokas? Although monovalent verb roots show differing patterns of verbal agreement—some show $\alpha$ agreement by default while others show $\beta$—there are no other syntactic consequences of this division. The evidence from previous chapters shows that split intransitivity is only skin deep in the sense that it is a morphological phenomenon without deep syntactic implications—i.e., no major syntactic processes have been identified which reflect the distinction. This is not the case in some split-S languages, as Dixon (1994) observes. In the Northern Athapaskan language Slave, for example, causatives can be derived from $S_o$ but not from $S_a$; passives can be derived from $S_a$ but not $S_o$; and noun incorporation operates on $O$ or $S_a$ but not on $S_o$. However, in Rotokas, causatives can be derived from either $\alpha$ or $\beta$ monovalents (cf. §10.1.2); there is no passive, but the resultative construction is not limited to a particular valency class (cf. §10.2.3; and noun incorporation operates on direct objects and oblique arguments of both $\alpha$ and $\beta$ verbs (cf. §10.2.2).
Predictions concerning which form of agreement—as well as the form of realis mood marking—is found on a verb involve features of S and O but not of A, the person, gender, and agreement found on the verb—as well as the form of irrealis mood marking—is determined by features of S and A. Although it is possible to characterize this as some form of syntactic ergativity, there seems little need to postulate ergative grammatical relations. Rather, a more modular, monosstratal theory of grammar involving interacting constraints is better able to handle the multiple factors that determine the form of verbal agreement in Rotokas. This is consistent with the reappraisal of the phenomenon of syntactic ergativity in languages where it has been argued to exist, such as the Mayan family. Stiebel (2006) analyzes agent focus construction in the Mayan family using an optimality-theoretic analysis of agent focus (based on ???) and concludes that there is no need to posit distinct grammatical relations, such as ergative and absolutive, in the syntax of Mayan languages:

“The analysis of agent focus presented in this paper also indicates that syntactic ergativity in Mayan — an interpretation of the data that might be invoked by the separate treatment of the transitive subject in focus, questions and relativization — is just an epiphenomenon of conflicting constraints and does not result from a distinct syntactic representation.”

The form of verbal agreement is not always semantically motivated, as was seen earlier with the aspectual verbs rovo ‘start’ and opesi ‘finish’, which take their form of agreement from the bare verb stem with which they co-occur. Although it could be argued that it is the semantics of the bare verb stem that determines the form of agreement, this phenomenon argues in favor of some form of syntactic representation for feature sharing, where the feature in question has one of two possible values: $\alpha$ or $\beta$.

The classification of a verb stem as $\alpha$ or $\beta$ is not a property of a verb root by itself, since a given verb root can show more than one type of inflection (as shown by the labile verb roots). It does, however, appear to be a lexical property, judging from a number of considerations.

First, there are a number of verb stems that obligatorily occur with the reflexive/reciprocal marker and cannot occur alone. These verb stems would generally qualify as “middles” (EXPLAIN WHAT THAT MEANS). The fact that these stems cannot be derived from their corresponding verb roots means that they must be considered stand-alone entries in the lexicon.

(723) \text{avaka-va ora-vurevure-pa-o-i riro-toa=ia kiuvu}
\text{salt-SG.F RR-move.RDP-CONT-3SG.F=\text{PRES}_{\alpha} \text{big-SG.M=LOC wind}}
The ocean is churning from the big wind, it isn’t still.
There also appear to be a few idiosyncratic cases of causative verb stems that do not have an identifiable root and even a few that are monovalent.

For example, although there is no verb root *uruuru* ‘fail to notice’, even though there is a reflexive/reciprocal verb stem *oraururu* ‘fail to notice’, illustrated in (724), and a causative verb stems *uruurupie* ‘distract (make fail to notice)’, illustrated in (725).

(724) **ora-uruuru-pa-ra-i**  
   *osia oira-ra  ragai=ia  pute-oro*  
   `RR-fail_to_notice-CONT-1SGα-PRESα  as  man-HUM.PL PRO.1.SG pass-DEP.SIM`
   
   *kare-a-i*  
   *return-3PLα-PRESα*
   
   I didn’t notice when the men passed by me on their way back.

(725) **Rapeasi uruuru-pie-pa-re-vo**  
   *Kori ovusia  Siopi urio-ro-e*  
   `Rapeasi fail_toNotice-CAUS-CONT-3SG.Mβ-1Pβ  Kori while  Siopi come-3SG.Mα-1Pα`
   
   **Rapeasi toe-sia**
   
   **Rapeasi cut-DEP.SEQ**
   
   Kori distracted Rapeasi while Siopi was coming to cut Rapeasi.

A similar pattern is observed for other verb roots, such as the hypothetical verb root *ruv* ‘startle’, there are nevertheless two verb stems which appear to be derived from it—namely, a reflexive stem *oraruvu* ‘to be startled’, illustrated in (726), and a causative stem *ruvupie* ‘startle’, illustrated in (727).

(726) **ora-ruvu-ro-epa**  
   *Ropi uvare  rera  sita-pie-re-va  Rausirea*  
   `RR-bestartled-3SG.Mα-1Pα  Ropi because PRO3.SG.M ???-CAUS-3SG.Mβ-RPβ  Rausirea`
   
   **Rpi was startled because Rausirea surprised him.**

(727) **Sita ruvu-pie-re-vo**  
   *Koka ovusia  kapu-a  iava*  
   `Sita be_startled-CAUS-3SG.Mβ-1Pβ  Koka while  sore-SG.N POST`
   
   **upia-pa-o-e**
   
   **feel_pain-CONT-3SG.Fα-1Pα**
   
   Koka surprised Sita while he was in pain from a sore.

Verb roots of this sort are in some sense the mirror image of the labile verb roots discussed in §10.1.1. These verb roots can only function with derivational morphology while labile verbs can only function without derivational morphology. The existence of these verb roots is important, because it underscores the lexical nature of derivational processes. In other words, reflexive/reciprocal and causative verb stems cannot be treated as a purely syntactic derivation that
12.2 A Lexicalist Approach to Verbal Inflection

In the previous section, the lexical nature of valency-changing derivations was emphasized. In this section, we will attempt to formulate more precisely a lexicalist account of verbal inflection in Rotokas, using the framework of Lexical Functional Grammar (LFG) (Bresnan and Kaplan, 1982; Bresnan, 2001; Falk, 2001). [CHARACTERIZE LFG]

LFG models syntax in terms of the interaction between two parallel structures, constituent structure (c-structure) and functional structure (f-structure). LFG is more permissive than other generative theories of syntax with respect to c-structure to the extent that it does not insist upon strict endocentricity (\(??\)). Nevertheless, Rotokas can be modelled as a strictly endocentric language, to the extent that phrasal heads consistently appear head-finally.\(^2\) Assuming endocentricity, the constituent structure of a simple transitive sentence might look something like (728).

\[
\begin{array}{c}
\text{IP} \\
\mid \\
\text{I'} \\
\mid \\
\text{VP} \quad \text{NP} \\
\mid \\
\text{N} \quad \text{V} \\
\mid \\
\text{koie} \quad \text{uporevoi}
\end{array}
\]

More important for the analysis of verbal inflection in Rotokas is the analysis of f-structure. The following features are required to account for verbal inflection in Rotokas:

---

\(^2\)One apparent exception to endocentricity are noun phrases, where a classifier occurs leftmost in the NP rather than a noun, but this can easily be resolved by treating classifiers as heads, which is consistent with the approach taken in the treatment of other languages: \(??\), \(??\), or \(??\) (?).
person 1, 2, 3
number sg, dl, pl
gender neut, masc, fem
mood irrealis, realis
tense present, immediate, distant

This feature would be underspecified for labile verb roots, as illustrated in the contrast between the use of the labile verb root *aio ‘eat’* in (??) and (??).

(729) a. 

riako-va sisiu-pa-o-i
woman-SG.F wash-CONT-3SG.Mα-PRESα
The woman is washing (bathing).
According to this analysis, the distinction between α and β inflection is a property of verbs, and stems of different types are lexical entries that conform to the dictates of the language’s argument structure, a-structure.

There are a number of competing accounts of how argument structure is best represented. It is therefore not a purely syntactic property or a purely semantic one, but rather both at once, since it takes the form of constraints on the mapping between syntax and semantics.

The woman is washing clothes.

riako-va  varo-a  sisiu-pa-e-voi
woman-SG.F clothing-SG.N wash-CONT-3SG.Mβ-PRESβ

(730)
One potential objection to this analysis is that noun incorporation would result in a factorial explosion of derived verb stems, given the possibility of a wide variety of objects to undergo noun incorporation—see ? for ??? [SAY MORE] This approach is consistent with the view of noun incorporation taken in Mithun (1986); Mithun and Corbett (1999), which advocates the treatment of noun incorporation as a morphological rather than a syntactic phenomenon.

This treatment of derivational processes as a lexical property provides the means to accommodate idiosyncratic exceptions. For example, the high frequency verb root tou ‘to be, to exist’ does not fit into any of the semantic classes identified in §11.2, but it nevertheless shows \( \beta \) agreement. The establishment of lexical classes also provides a means of capturing restricted generalizations that appeal to particular semantic subclasses—for example, the occurrence of verbs of perception exclusively with \( \beta \) inflection.

There has been a great deal of debate concerning the proper analysis of split intransitivity, and whether it is primarily a semantic or syntactic phenomenon. According to the analysis of Rotokas advocated here, this is a false dichotomy, in the sense that is not really either. [EXPLAIN]

### 12.3 Directions for Future Research

There are a few directions that research on the nature of verbal inflection in Rotokas might take: more detailed analysis of tense/aspect/mood (§12.3.1); a systematic study of the behavior of loan verbs (§12.3.2); and comparative evidence from other dialects of Rotokas and/or other languages in the Rotokas family (§12.3.3). Each will be discussed in turn.

#### 12.3.1 Tense/Aspect/Mood

Earlier it was concluded that there was no evidence of a single parameter governing whether a verb stem shows \( \alpha \) or \( \beta \) agreement. It is important to bear in mind that absence of evidence is not evidence of absence. A detailed investigation of the meaning of the various tense/aspect/mood distinctions found in the language remains to be done. Firchow (1987) provides little more than an inventory of forms and here the formal properties and basic meaning of those forms are laid out, but a detailed analysis of their interaction with verb classes (i.e., an inventory of Aktionsart types) may shed some light on the proper analysis of the two classes of intransitive verbs.

[DISCUSS ZAENEN PAPER]

Not all of the morphology for tense/mood is sensitive to the distinction between \( \alpha \) and \( \beta \) inflection. The irrealsis mood is sensitive to animacy rather than verb classification. In other
words, irrealis mood is sensitive to a property of the subject rather than one of the verb (or the type of event denoted by it).

My own elicitation work with native speakers of Rotokas failed to yield an unequivocal test for telicity in the language, such as the distinction between the prepositions in and for in prepositional phrases (e.g., *John drank the poisoned water for less than five years* versus *John ate the hot dog in less than five minutes*). Future work on the language will have to delve more deeply into the nature of Aktionsart, aspect, and other related factors.

As Levin (2000) points out, “the ontological types of events relevant to argument realization may not all be asp ectual in nature”.

### 12.3.2 Loan Verbs

One lingering question concerning the various semantic classes identified in §11.2 is the extent to which it reflects a productive semantic system. Closer examination of the behavior of loan verbs may help illuminate the issue. Many verbs from Tok Pisin and English are being borrowed into Rotokas and their classification as $\alpha$ or $\beta$ should provide some insight into the nature of the system. Generally speaking, verb stems borrowed into Rotokas from Tok Pisin show the form of inflection expected given their syntactic behavior. For example, the verb stem *iusi* ‘to use’ (from *usim*) takes a direct object and shows $\beta$ inflection, as illustrated in (731).

(731) ragai opo guru-va iusi-a-voi aue ruu-sia arua tai  
PRO.1.SG taro leaf-SG.F use-1SG$\beta$-PRES$\beta$ CONN cover-DEP.SEQ vegetable CLF  
I use taro leaves in order to cover vegetables.

The majority of the more common verbs borrowed into Rotokas from Tok Pisin are monovalent and show $\alpha$ agreement—e.g., *rotu* ‘attend church’, as in (732), or *sikuru* ‘attend school’, as in (733).

(732) ragai Rieko ruvara=ia pau-pa-ra-e ovusia rotu-pa-i-e  
PRO.1.SG Rieko near=LOC sit-CONT-1SG$\alpha$-IP$\alpha$ while church-CONT-1PL.EXCL-IP$\alpha$  
eisi rotu-pa kepa  
LOC church-DERIV house  
I sam sitting down next to Rieko while we prayed in church.

(733) vieiasia-to Viviere uvare viapau sikuru-ro-epa  
iliterate-SG.M Viviere because NEG school-3SG.M$\alpha$-RP$\alpha$  
Viviere is illiterate because he didn’t go to school.
Unfortunately, very few of the verb stems borrowed into Rotokas from Tok Pisin fall into the various semantic classes identified in §11.2. However, the author recalls hearing the English verb *bounce* used as a \( \beta \) verb stem by a young Rotokas speaker describing the behavior of a semi-deflated volleyball, as in (734).

\[(734) \text{vaunsi-re-voi} \]
\[\text{bounce-3SG.M}_\beta\text{-PRES}_\beta \]
\[\text{It is bouncing.}\]

The occurrence of a verb of motion cum manner with \( \beta \) inflection suggests that the semantic subclasses discussed in §11.2 represent a productive system, but there are other borrowed verb roots that are not as well behaved. For example, Firchow (1984) cites a borrowed monovalent verb root *politiki* ‘to play politics’ that shows \( \beta \) agreement in Firchow (1984), as in (735).

\[(735) \text{politiki-pa-re-voi} \]
\[\text{politics-CONT-3SG.M}_\beta\text{-PRES}_\beta \]
\[\text{He is in politics.}\]

### 12.3.3 Comparative Evidence

Another line of inquiry that may shed light on the nature of the Rotokas system of verbal agreement would be comparative analysis of other dialects or other languages in the Rotokas family. Some preliminary investigation of the Aita dialect was initiated by the author during his last trip to Bougainville, but this work is in its infancy, having only established the basic phonological inventory of the Aita dialect (Robinson, 2006). The only language in the Rotokas family that has been described in print is Konua (also known as Rapoisi), thanks to the vocabulary and grammatical notes of Müller (1954).\(^3\)

It would appear that the distinction between \( \alpha \) and \( \beta \) verbal inflection is also found in Rapoisi, judging from the contrast between the inflection of the verbs in (736): the verb root *aba* ‘go’ shows one form of inflection while the verb root *uri* ‘dig’ shows another (Müller, 1954:???).

\[(736) \text{a. aba-ra-ea} \]
\[\text{go-1SG}_\alpha\text{-PRES}_\alpha \]
\[\text{I am going.}\]

\(^3\)The data in Müller (1954) must be interpreted with caution, given its questionable quality. For example, SIL missionary linguists working on the language note that Müller (1954) overlooks the allophony between [n], [l], and [r] and between [b] and [m] (Steve Blewett, pc).
b. *uri-a-ba*
\[
\text{dig-1SG}_\alpha\text{-PRES}_\beta
\]
I am digging.

The contrast is also seen in the contrast between verb roots and their causative counterparts. For example, the causative verb stem *uhipie* ‘kill’ shows a different form of inflection than the verb root *uhi* ‘die’, from which it is derived, as shown in (737).

(737) a. *uhi-ea*
\[
\text{die-PRES}_\alpha
\]
He is dead.

b. *uhi-pie-a-ba*
\[
\text{die-CAUS-1SG}_\beta\text{-PRES}_\beta
\]
I am killing.

The correspondences between Rotokas and Konua are fairly clear-cut: the form of the first person singular is identical in the two languages (-*ra* for \(\alpha\) agreement versus -*a* for \(\beta\) agreement) and the realis present is -*ei* (\(\alpha\)) or -*voi* (\(\beta\)) in Rotokas and -*ea* (\(\alpha\)) or -*vo* (\(\beta\)) in Konua.

More than one form of verbal agreement can be found for a particular verb root in Konua, and the difference appears to be attributable to valency. In other words, Konua also possesses labile verb roots (see §10.1.1 for a discussion of labile verbs in Rotokas). For example, Müller (1954:73/107) contains the verb root *sisio* ‘wash’ with both \(\alpha\) agreement and \(\beta\) agreement with a note indicating that the \(\beta\) agreement is associated with transitive usage.

(738) a. *sisio-a-ba*
\[
\text{wash-1SG}_\beta\text{-PRES}_\beta
\]
I wash.

b. *sisio-ra-ea*
\[
\text{wash-1SG}_\alpha\text{-PRES}_\alpha
\]
I wash myself; I am washed.

Without more information concerning the valency of these verb forms, the data in Müller (1954) cannot shed a great deal of light on the diachronic origins of the Rotokas system. However, the data that does exist suggest that the other dialects of Rotokas and the other languages in the Rotokas family are likely to possess this distinction, and the differences between the various systems may shed light on the semantic and syntactic parameters involved.
12.3 Directions for Future Research

Conclusion
### Abbreviations

The abbreviations and glossing conventions used here are consistent with the guidelines set out in Lehmann (1983).

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ‘1st Person’</td>
<td>HAB ‘Habitual’</td>
</tr>
<tr>
<td>2 ‘2nd Person’</td>
<td>INANIM ‘Inanimate’</td>
</tr>
<tr>
<td>3 ‘3rd Person’</td>
<td>INCL ‘Inclusive’</td>
</tr>
<tr>
<td>ABS ‘Absolute’</td>
<td>INTEN ‘Intensifier’</td>
</tr>
<tr>
<td>ADV ‘Adverbial’</td>
<td>M ‘Masculine’</td>
</tr>
<tr>
<td>ALL ‘Allative’</td>
<td>MED ‘Medial’</td>
</tr>
<tr>
<td>ALT ‘Alternate’</td>
<td>INDEF ‘Non-Absolute’</td>
</tr>
<tr>
<td>ANIM ‘Animate’</td>
<td>NEG ‘Negation’</td>
</tr>
<tr>
<td>ANTIC ‘Anticipatory’</td>
<td>NF ‘Near Future’</td>
</tr>
<tr>
<td>CMPL ‘Completive’</td>
<td>NP ‘Near Present’</td>
</tr>
<tr>
<td>COMP ‘Complementizer’</td>
<td>N ‘Neuter’</td>
</tr>
<tr>
<td>CONT ‘Continuous’</td>
<td>PL ‘Plural’</td>
</tr>
<tr>
<td>DELIM ‘Delimiter’</td>
<td>POSS ‘Possession’</td>
</tr>
<tr>
<td>DEM ‘Demonstrative’</td>
<td>POST ‘Postposition’</td>
</tr>
<tr>
<td>DF ‘Distant Future’</td>
<td>PRES ‘Present’</td>
</tr>
<tr>
<td>DL ‘Dual’</td>
<td>PROX ‘Proximal’</td>
</tr>
<tr>
<td>DP ‘Distant Past’</td>
<td>PRO ‘Pronoun’</td>
</tr>
<tr>
<td>EPEN ‘Epenthetical’</td>
<td>PURP ‘Purposive’</td>
</tr>
<tr>
<td>EXCL ‘Exclusive’</td>
<td>REF ‘Reflexive’</td>
</tr>
<tr>
<td>F ‘Feminine’</td>
<td>REL ‘Relativizer’</td>
</tr>
</tbody>
</table>
Abbreviations

RP ‘Remote Past’          SIM ‘Simultaneity’
SG ‘Singular’             SUB ‘Subjunctive’
Verb Analysis

An electronic lexical database was developed by the author during his fieldwork in Bougainville. This database was based on a pre-existing Shoebox dictionary of Rotokas that was originally developed and released to the public by Irwin Firchow and made available by the Summer Institute of linguistics (Firchow, 1973, 1984).

Table B.1 Dictionary Statistics

<table>
<thead>
<tr>
<th>Dictionary</th>
<th>Original</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Num. of Entries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fields Per Entry (Avg.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Num. of Ex. Sentences</td>
<td>2848</td>
<td>7338</td>
</tr>
<tr>
<td>Ex. Sentences Per Entry (Avg.)</td>
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<td></td>
</tr>
<tr>
<td>Entries Lacking Ex. Sentences</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Below all of the verbs in the dictionary are listed according to their valency (in angle brackets), argument type (in square brackets), and classification (in vertical brackets).

This list was automatically generated from a Shoebox dictionary using a Python script written by the author. The script takes advantage of a Shoebox class library developed by the author, which is in the process of being incorporated into the Natural Language Toolkit for Python (Loper and Bird, 2002, 2004)—see nltk.sourceforge.net for the latest version.

B.1 \( \langle 1 \rangle [\text{SUB}] \parallel \alpha \parallel \) (Total: 385)

Total: 385
aaooao “become grandparents”
aapaapau “unfamiliar, visit”
aasi “decorate with beads”
aau “blinded by light”
agara “quiet, unasserting, calm”
agasi “be full”
ageagesi “laugh”
ageasi “laugh”
aguvu “clean or worn clear”
aio “eat”
aioaio “snack”
aiva “easy, simple”
aku “salty”
akuta “open mouth wide”
api “embarrassed”
apopoi “difficult, expensive, hard to get”
araiva “easy, simple”
arakasi “deserted, vacant”
ararave “wilt, weaken”
arasi “skillfully, carefully”
aroe “recover”
arii “be ashamed”
arihisi “curdled”
aritaru “delay, linger, hesitate”
arua “???”
asige “sneeze”
asikauru “rust”
asiriko “dirty, soiled”
asisoe “numb, sickly, paralyzed”
asitaisi “march in line”
atara “huddle together, sleep together”
atari “fish”
atario “hunt”
atoro “weak, disinterested, lazy, disabled”
av “go”
avavaia “frustrated, confused”
aveave “cross, fussy”
aveaveo “soreness in groin”
averu “tissue-like, thin”
avi “sunset”
avuka “age”
eaka “relax, be tranquil”
eavi “ooze pus”
eoro “suspend like fruit”
erako “collect firewood”
erakusi “persisting”
erao “wake up, arise from sleep”
erere “walk across something suspended or lying on the ground (e.g., log)”
ero “run”
 naj “aghast, shocked”
gapu “naked”
garagarako “excited, startled, anxious, shake”
gare “small, little”
gariava “???”
garigariava “???”
garo “loose, slack”
garogaro “loose”
garuru “slow, dilly-dally”
gaurirao “slippery, smooth, polished”
gauru “migrate, uproot, leave home”
gausisi “smooth”
gauvioro “easy, slow”
gavata “rot, putrify”
gavogavoto “loosened, slack”
gesi “smell, taste”
giigirau “groan”
Verb Analysis

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>gisi</td>
<td>“drown, fill up with”</td>
</tr>
<tr>
<td>gitagita</td>
<td>“tough”</td>
</tr>
<tr>
<td>goagoara</td>
<td>“boiling”</td>
</tr>
<tr>
<td>goego</td>
<td>“slack, loose”</td>
</tr>
<tr>
<td>gogoura</td>
<td>“pass on responsibility, go on completely, leave behind”</td>
</tr>
<tr>
<td>gorogoro</td>
<td>“boil, broil”</td>
</tr>
<tr>
<td>gorotu</td>
<td>“soft, pithy”</td>
</tr>
<tr>
<td>goro</td>
<td>“strong, tight, firm, hard”</td>
</tr>
<tr>
<td>gotogoto</td>
<td>“hung up”</td>
</tr>
<tr>
<td>govuto</td>
<td>“gray, muddy”</td>
</tr>
<tr>
<td>gue</td>
<td>“lean”</td>
</tr>
<tr>
<td>guvuguvurio</td>
<td>“bubble up, effervesce, splash”</td>
</tr>
<tr>
<td>iipa</td>
<td>“go up, go on top”</td>
</tr>
<tr>
<td>ira</td>
<td>“go ahead, go first”</td>
</tr>
<tr>
<td>iruviro</td>
<td>“quarantine”</td>
</tr>
<tr>
<td>itako</td>
<td>“sour”</td>
</tr>
<tr>
<td>itoroko</td>
<td>“stiff”</td>
</tr>
<tr>
<td>kaa</td>
<td>“gag”</td>
</tr>
<tr>
<td>kaakasi</td>
<td>“hot”</td>
</tr>
<tr>
<td>kaava</td>
<td>“feint with bow and arrow”</td>
</tr>
<tr>
<td>kaeviro</td>
<td>“lift off, take off”</td>
</tr>
<tr>
<td>kai</td>
<td>“make trash, create a mess”</td>
</tr>
<tr>
<td>kaipori</td>
<td>“perky, alert”</td>
</tr>
<tr>
<td>kaitutu</td>
<td>“resolute, steadfast, tight”</td>
</tr>
<tr>
<td>kaki</td>
<td>“cracked open, split open”</td>
</tr>
<tr>
<td>kapeaa</td>
<td>“insubstantial, flimsy, unstable”</td>
</tr>
<tr>
<td>kapoo</td>
<td>“poor, destitute”</td>
</tr>
<tr>
<td>kapua</td>
<td>“have sores”</td>
</tr>
<tr>
<td>karapi</td>
<td>“sing high pitched”</td>
</tr>
<tr>
<td>karavisi</td>
<td>“angry, upset”</td>
</tr>
<tr>
<td>karavuru</td>
<td>“get dusty”</td>
</tr>
<tr>
<td>kare</td>
<td>“return”</td>
</tr>
<tr>
<td>karekare</td>
<td>“itch”</td>
</tr>
<tr>
<td>kareke</td>
<td>“appear, happen, come to be”</td>
</tr>
<tr>
<td>karekare</td>
<td>“return”</td>
</tr>
<tr>
<td>karivai</td>
<td>“have an appetite”</td>
</tr>
<tr>
<td>kasi</td>
<td>“start a fire, make a fire”</td>
</tr>
<tr>
<td>kasikasi</td>
<td>“cross, angry, difficult, diligent”</td>
</tr>
<tr>
<td>kasirao</td>
<td>“hot”</td>
</tr>
<tr>
<td>katukatu</td>
<td>“rot away, flake off, unfastened”</td>
</tr>
<tr>
<td>kauo</td>
<td>“jump”</td>
</tr>
<tr>
<td>kauokauo</td>
<td>“jump up and down”</td>
</tr>
<tr>
<td>kavau</td>
<td>“be born”</td>
</tr>
<tr>
<td>kavee</td>
<td>“cool off in a shaded spot”</td>
</tr>
<tr>
<td>kaviru</td>
<td>“steal, rob”</td>
</tr>
<tr>
<td>kavori</td>
<td>“collect crayfish or lobster”</td>
</tr>
<tr>
<td>kavu</td>
<td>“left behind, left over”</td>
</tr>
<tr>
<td>keekee</td>
<td>“chipped, shattered”</td>
</tr>
<tr>
<td>keke</td>
<td>“look”</td>
</tr>
<tr>
<td>kekeputu</td>
<td>“nearly, almost”</td>
</tr>
<tr>
<td>keopa</td>
<td>“taste good”</td>
</tr>
<tr>
<td>kerau</td>
<td>“stiff, rigormortis, rigid”</td>
</tr>
<tr>
<td>keru</td>
<td>“harden like bone”</td>
</tr>
<tr>
<td>kerui</td>
<td>“thin, bony, skinny”</td>
</tr>
<tr>
<td>keruria</td>
<td>“persistent, stubborn, determined”</td>
</tr>
<tr>
<td>kesi</td>
<td>“limp”</td>
</tr>
<tr>
<td>kevaita</td>
<td>“kid, joke, jest”</td>
</tr>
<tr>
<td>kevoisi</td>
<td>“persistent, determined”</td>
</tr>
<tr>
<td>kiire</td>
<td>“play tag”</td>
</tr>
<tr>
<td>kirava</td>
<td>“???”</td>
</tr>
<tr>
<td>kirukiru</td>
<td>“crisp”</td>
</tr>
<tr>
<td>kiru</td>
<td>“have sore near mouth”</td>
</tr>
<tr>
<td>koko</td>
<td>“act like a pig”</td>
</tr>
<tr>
<td>kokois</td>
<td>“sweat, perspire”</td>
</tr>
<tr>
<td>kokopeko</td>
<td>“unconscious, in a stupor”</td>
</tr>
</tbody>
</table>
kokoro “crazy, insane, foolish, stupid”
kokorut “insect-infested”
kokosi “itch, sting”
kokovae “sing”
kokoe “swing on something”
kookooioa “mourn, singsing-cry”
kookoopeko “faint”
kooroo “have hampered speech, be hoarse”
koova “sing”
kopii “die, very ill”
kopuasi “restored, rejuvenated”
kora “vent anger or frustration on an object”
korara “spin top in play”
korau “clear, unobstructed”
kosi “go out, exit, come out”
kosikosi “come out, exit”
kosiviro “go out, exit”
koto “hang”
koukouo “laugh heartily”
kova “grow, mature”
kovasi “pregnant”
kovata “thrilled, happy”
kove “fall, drop”
kovekove “drip repeatedly”
kovokovo “play Jew’s Harp”
kue “reproduce, bear fruit”
kukauviro “deteriorate”
kupukupu “excited, anxious”
kurokuro “arthritic, paralyzed”
kusii “cool off”
kukuuvuu “lie, deceive”
kuuri “grunt, huff and puff”
kuvaki “quiet”
kuvu “lie, deceive”
kuvau “alone”

kuvoro “burned out, extinguished”
lotu “worship, attend church”
oe “throw up”
ogaaga “whisper, talk quietly, be sly”
ogoe “be hungry”
oirao “true, valid, real”
okoe “crab-hunt, collect crabs”
okote “collect crabs”
oku “miss out”
opasipara “disoriented, lost”
opesiko “vanish, disappear”
opokau “put belt around the stomach to end hunger pangs”
oreore “tired of doing something, dislike doing something”
or “cook”
otara “recline, lean back”
oveove “revealed, uncovered, exposed”
ovoi “finish”
ovoio “be last”
papeo “obedient”
papu “extinguish, die out, without”
paro “wander?”
pau “sit”
pekapekara “line up”
peko “uneasy, restless, impatient”
pepe “sleep”
perepere “roll”
periko “roll, fall”
peru “ripe”
pesipesiko “fade away, disappear, lost”
piaopa “stubborn, not open to suggestions”
pigoga “infected”
pikarata “explode”
piru “slip, slippery”
<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>pogata</td>
<td>“burst open”</td>
</tr>
<tr>
<td>pokapoka</td>
<td>“lazy, unenthusiastic”</td>
</tr>
<tr>
<td>poko</td>
<td>“explode, erupt”</td>
</tr>
<tr>
<td>pokopoko</td>
<td>“explode repeatedly”</td>
</tr>
<tr>
<td>popote</td>
<td>“whiten, turn white”</td>
</tr>
<tr>
<td>pore</td>
<td>“turn”</td>
</tr>
<tr>
<td>porete</td>
<td>“recovered”</td>
</tr>
<tr>
<td>poro</td>
<td>“turn, wet, damp”</td>
</tr>
<tr>
<td>posige</td>
<td>“snort, half-sneeze”</td>
</tr>
<tr>
<td>posiposi</td>
<td>“dry”</td>
</tr>
<tr>
<td>pou</td>
<td>“arrive”</td>
</tr>
<tr>
<td>pouka</td>
<td>“lean, inclined”</td>
</tr>
<tr>
<td>pouwau</td>
<td>“dull, blunt”</td>
</tr>
<tr>
<td>pugu</td>
<td>“busy, occupied”</td>
</tr>
<tr>
<td>pupukai</td>
<td>“dirty from dust”</td>
</tr>
<tr>
<td>pupuraki</td>
<td>“perspire, sweat”</td>
</tr>
<tr>
<td>puupuru</td>
<td>“darkened”</td>
</tr>
<tr>
<td>raaka</td>
<td>“dry up”</td>
</tr>
<tr>
<td>ragegeta</td>
<td>“dried out, dessicated”</td>
</tr>
<tr>
<td>rageragete</td>
<td>“weakened”</td>
</tr>
<tr>
<td>ragorea</td>
<td>“slump, wilt, nod, doze”</td>
</tr>
<tr>
<td>raipi</td>
<td>“clear”</td>
</tr>
<tr>
<td>raka</td>
<td>“dry, reef”</td>
</tr>
<tr>
<td>rakote</td>
<td>“die down, near completion”</td>
</tr>
<tr>
<td>rao</td>
<td>“drain”</td>
</tr>
<tr>
<td>rarakeo</td>
<td>“light weight”</td>
</tr>
<tr>
<td>rare</td>
<td>“be ashes”</td>
</tr>
<tr>
<td>rasirasi</td>
<td>“satisfied, content”</td>
</tr>
<tr>
<td>rasivauru</td>
<td>“???”</td>
</tr>
<tr>
<td>raverave</td>
<td>“weaken, tire”</td>
</tr>
<tr>
<td>rearea</td>
<td>“rest, relax”</td>
</tr>
<tr>
<td>reasi</td>
<td>“be disinclined, tired of, dislike”</td>
</tr>
<tr>
<td>regeri</td>
<td>“play, insincere”</td>
</tr>
<tr>
<td>regore</td>
<td>“bent, crooked”</td>
</tr>
<tr>
<td>rerei</td>
<td>“make mischief, play pranks, play around, goof around”</td>
</tr>
<tr>
<td>riario</td>
<td>“sweat”</td>
</tr>
<tr>
<td>riga</td>
<td>“spread, scattered”</td>
</tr>
<tr>
<td>siee</td>
<td>“slack, loose”</td>
</tr>
<tr>
<td>sieru</td>
<td>“rainwashed, soaked, drenched”</td>
</tr>
<tr>
<td>siiguru</td>
<td>“drum, beat drum”</td>
</tr>
<tr>
<td>siirou</td>
<td>“stop activity, quiet, silent”</td>
</tr>
<tr>
<td>siitako</td>
<td>“be troubled”</td>
</tr>
<tr>
<td>sikasika</td>
<td>“spread, disperse”</td>
</tr>
<tr>
<td>sikopa</td>
<td>“nearly half full”</td>
</tr>
<tr>
<td>siku</td>
<td>“wallow in mud”</td>
</tr>
<tr>
<td>sipari</td>
<td>“comb”</td>
</tr>
<tr>
<td>sipe</td>
<td>“salty, sting”</td>
</tr>
<tr>
<td>sipiro</td>
<td>“play”</td>
</tr>
<tr>
<td>sirakoi</td>
<td>“sit and worry or sorrow”</td>
</tr>
<tr>
<td>sirao</td>
<td>“pity, feel sorry for, care for”</td>
</tr>
<tr>
<td>sirooro</td>
<td>“foggy, hazy”</td>
</tr>
<tr>
<td>sisiga</td>
<td>“clean”</td>
</tr>
<tr>
<td>sisiga</td>
<td>“shine brilliantly, glory”</td>
</tr>
<tr>
<td>sisu</td>
<td>“bathe, wash”</td>
</tr>
<tr>
<td>sitoka</td>
<td>“intense pain”</td>
</tr>
<tr>
<td>tagugu</td>
<td>“cloudy, overcast, uncertain”</td>
</tr>
<tr>
<td>takau</td>
<td>“tired, disappointed”</td>
</tr>
<tr>
<td>takoto</td>
<td>“shout”</td>
</tr>
<tr>
<td>taku</td>
<td>“bow over, bend over”</td>
</tr>
<tr>
<td>takutaku</td>
<td>“low to the ground”</td>
</tr>
<tr>
<td>taoro</td>
<td>“fat, obese”</td>
</tr>
<tr>
<td>taovi</td>
<td>“thick”</td>
</tr>
<tr>
<td>tapetuta</td>
<td>“criss-crossed”</td>
</tr>
<tr>
<td>tapurisi</td>
<td>“unconscious, sleep soundly”</td>
</tr>
<tr>
<td>taraigegea</td>
<td>“stubborn, not open to suggestions”</td>
</tr>
<tr>
<td>tarao</td>
<td>“divine sickness”</td>
</tr>
<tr>
<td>tariata</td>
<td>“scorched”</td>
</tr>
</tbody>
</table>

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B.1 (1) [SUB] || α || (Total: 385) Verb Analysis

tariri “wander about, run around”
taritari poi "go in circles"
taruko “pregnant”
taruu “continuously falling”
tasi “wear shoes”
tauai “far off”
tava “expose hidden deeds, dry in the sun”
tavatavari “disperse”
tugura “complete journey, arrive at an intended point”
tupe “next in line, follow suit”
tupetupere o “in pairs”
tupitupi “wet, moist, damp”
turi “exceed limits”
tutuagi “nightfall, become night, dark”
tuukau “stiff, rigid”
tuutuusi “shake, quiver”
tuuviu “brave, steady, resolute”
tuvuu “swell”
tuvituvito “sore”
tuvutuvuke “frequent”
ugoro “cold”
uguro “soggy, placid”
upe “wear Upe”
urio “come”
uririko “scared stiff, stiff with fright”
ururupa “shut the eyes”
urusi “dream”
utave “blow Triton’s trumpet”
uteo “cold, cool”
uturoo “walk hesitantly, todle along, walk like toddler”
uu “meet together, gather”
uuge “slack, loose”
uukaio “drink”
uureo “sour, bitter”
uusi “sleep”
uvagi “deaf”
uviro “cross over”
uviru “cooked completely”
uvui “be able”
uvururu “meet, gather, assemble”
vaagi “pit cook, steam bake”
vagapa “fall a great distance”
vagevage “race, compete”
vakuvaku “scorn, doubt, scoff”
vara “come down, descend”
variri “pray, petition”
varivarike “hasten”
varu “go up, ascend, loose”
varu “find meat”
varuvaru “healthy, vigorous”
v asava “cover over, grow new skin”
v asi “???”
vasivasi “important, outstanding”
vatasioko “unsettled, discontent”
vatatopo “be ready, be careful”
vatau “hide”
vatukoro “coagulate, thicken”
vavarai “wild, undomesticated”
vavata “heavy”
vavau “breathe”
vavauko “talk in one’s sleep”
vavavu “bitter taste”
vavio “dodge, avoid”
vavori “shut eyes”
vearo “good, fine, well”
vegovego “picnic in the jungle”
veke “become gel, be sticky, become paste”
vepu “yell”
### Verb Analysis

<table>
<thead>
<tr>
<th>Verb</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;vera&quot;</td>
<td>“leave”</td>
</tr>
<tr>
<td>&quot;vereverekeko&quot;</td>
<td>“roll”</td>
</tr>
<tr>
<td>&quot;veri&quot;</td>
<td>“worthless”</td>
</tr>
<tr>
<td>&quot;vesi&quot;</td>
<td>“portion out a bit at a time, space out activity”</td>
</tr>
<tr>
<td>&quot;veve&quot;</td>
<td>“completely ripe”</td>
</tr>
<tr>
<td>&quot;vevei&quot;</td>
<td>“fully ripe”</td>
</tr>
<tr>
<td>&quot;viae&quot;</td>
<td>“clear, innocent”</td>
</tr>
<tr>
<td>&quot;viaka&quot;</td>
<td>“clear”</td>
</tr>
<tr>
<td>&quot;vieiasia&quot;</td>
<td>“illiterate”</td>
</tr>
<tr>
<td>&quot;vieviei&quot;</td>
<td>“enumerate, count several objects”</td>
</tr>
<tr>
<td>&quot;vigovigo&quot;</td>
<td>“hot, hot”</td>
</tr>
<tr>
<td>&quot;viaka&quot;</td>
<td>“empty, void of, vacant”</td>
</tr>
<tr>
<td>&quot;vioro&quot;</td>
<td>“ripe”</td>
</tr>
<tr>
<td>&quot;viovoko&quot;</td>
<td>“become adolescent”</td>
</tr>
<tr>
<td>&quot;virakoi&quot;</td>
<td>“orphaned”</td>
</tr>
<tr>
<td>&quot;virata&quot;</td>
<td>“wild, untamed after once being tamed”</td>
</tr>
<tr>
<td>&quot;virikasi&quot;</td>
<td>“very hot, difficult”</td>
</tr>
<tr>
<td>&quot;virivari&quot;</td>
<td>“protecting, shielding, averting danger”</td>
</tr>
<tr>
<td>&quot;virivirio&quot;</td>
<td>“think of one’s self only, self centered thinking”</td>
</tr>
<tr>
<td>&quot;viroo&quot;</td>
<td>“return as inevitable consequence”</td>
</tr>
<tr>
<td>&quot;viru&quot;</td>
<td>“move”</td>
</tr>
<tr>
<td>&quot;vitavoko&quot;</td>
<td>“hard”</td>
</tr>
<tr>
<td>&quot;viuru&quot;</td>
<td>“fight”</td>
</tr>
<tr>
<td>&quot;viuviu&quot;</td>
<td>“straight, unpretentious”</td>
</tr>
<tr>
<td>&quot;voevoe&quot;</td>
<td>“belch, burp”</td>
</tr>
<tr>
<td>&quot;vogeta&quot;</td>
<td>“draw in stomach, have empty stomach”</td>
</tr>
<tr>
<td>&quot;vogete&quot;</td>
<td>“ecstatic, joyful, smile”</td>
</tr>
<tr>
<td>&quot;vogisi&quot;</td>
<td>“saturated”</td>
</tr>
<tr>
<td>&quot;voki&quot;</td>
<td>“become night, get up”</td>
</tr>
<tr>
<td>&quot;voosi&quot;</td>
<td>“blind”</td>
</tr>
<tr>
<td>&quot;voovooosi&quot;</td>
<td>“settle out of a liquid, solidify”</td>
</tr>
<tr>
<td>&quot;vore&quot;</td>
<td>“return, come back, go back”</td>
</tr>
<tr>
<td>&quot;voruvoru&quot;</td>
<td>“wrinkled”</td>
</tr>
<tr>
<td>&quot;vovosi&quot;</td>
<td>“settle out of a liquid”</td>
</tr>
<tr>
<td>&quot;vovueo&quot;</td>
<td>“unsalty, tasteless”</td>
</tr>
<tr>
<td>&quot;vuato&quot;</td>
<td>“clear out”</td>
</tr>
<tr>
<td>&quot;vuavua&quot;</td>
<td>“cool”</td>
</tr>
<tr>
<td>&quot;vuivui&quot;</td>
<td>“dirty”</td>
</tr>
<tr>
<td>&quot;vuri&quot;</td>
<td>“bad, inferior, spoiled, wrong”</td>
</tr>
<tr>
<td>&quot;vuro&quot;</td>
<td>“out-of-it, stupified, drunk”</td>
</tr>
<tr>
<td>&quot;vutuko&quot;</td>
<td>“round, panlike”</td>
</tr>
<tr>
<td>&quot;vuvui&quot;</td>
<td>“transparent”</td>
</tr>
<tr>
<td>&quot;vuvure&quot;</td>
<td>“blow”</td>
</tr>
<tr>
<td>&quot;vuvutau&quot;</td>
<td>“vaporize, steam, smoke”</td>
</tr>
</tbody>
</table>

### B.2 (1) [SUB] ||β|| (Total: 66)

Total: 66

<table>
<thead>
<tr>
<th>Verb</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;aata&quot;</td>
<td>“swim”</td>
</tr>
<tr>
<td>&quot;aka&quot;</td>
<td>“open the mouth, shout”</td>
</tr>
<tr>
<td>&quot;asigo&quot;</td>
<td>“speak Rotokas”</td>
</tr>
<tr>
<td>&quot;eeko&quot;</td>
<td>“defecate”</td>
</tr>
<tr>
<td>&quot;gau&quot;</td>
<td>“cry, weep”</td>
</tr>
<tr>
<td>&quot;gaugau&quot;</td>
<td>“cry”</td>
</tr>
<tr>
<td>&quot;gipugipu&quot;</td>
<td>“whimper”</td>
</tr>
<tr>
<td>&quot;gosigosi&quot;</td>
<td>“limp”</td>
</tr>
<tr>
<td>&quot;guruko&quot;</td>
<td>“make noise”</td>
</tr>
<tr>
<td>&quot;ikaikau&quot;</td>
<td>“run”</td>
</tr>
<tr>
<td>&quot;ikau&quot;</td>
<td>“run, hurry, speed”</td>
</tr>
<tr>
<td>&quot;kapere&quot;</td>
<td>“swim with part of the body out of the”</td>
</tr>
</tbody>
</table>
water”
kapuu “dumb, not speaking”
koikoi “groan with pain”
kokoro “make rain”
kokoroku “crow”
koVo “work”
kukumuku “make footfall”
kupare “smoke, produce smoke”
opoko “defecate, eliminate”
pai “confused, difficult, stuck”
papa “fly”
parakau “light up, spread across an expanse”
paru “flow, move, go, run”
pegu “bark”
pegupegu “bark”
pigo “defecate (chicken)”
pika “splash”
pupaupa “splash over”
pupi “play bamboo pipes”
puu “break wind”
paraka “become light”
paraurau “sway back and forth”
rekureku “kneel repeatedly, dance bending the knees deeply”
rekureku “kneel repeatedly, dance bending the knees deeply”
rekureku “kneel repeatedly, dance bending the knees deeply”
rekureku “kneel repeatedly, dance bending the knees deeply”
reku “genuflect, kneel, fold over”
rere “descend”
rigorigo “stroll, roam”
rutoko “defecate (pig)”

rove “thirst for”
roro “go into, penetrate”
roru “happy, glad, pleased”
ruu “stop”
sikere “streak of light, start to shine, dawn”
sipokoro “sprout through surface”
sipukau “sprout”
sipusipu “grow, shoot up”
siru “shiny”
siruva “good-looking, nice appearance”
sisikore “shine, gleam, glisten”
taaripa “circle, spin”
tori “run away, flee”
tou “be, stay”
tugisi “defecate (dog)”
tupa “defecate (rat or insect)”
ukauka “swish around, splash around”
uuko “get water”
vauvau “make noise, make a ruckus”
veku “be angry”
veku “be angry”
veku “be angry”
veku “be angry”
vkakev “gasp, breath heavily”
visiko “play”
viviko “urinate, piss, pee”
voakou “eliminate feces or urine”
voka “walk, scan, glance through”
vusivusiv “burst forth, erupt, break out”
vusivusiv “appear, come out”

B.3 ⟨2⟩ [SUB, OBL] ||α|| (Total: 55)

Total: 55

agigio [−pa] “respect”
apota [−pa] “poor, lacking”
aite [−re] “father”
arikoko “pay respect, honor by avoidance”
Verb Analysis

asia “dislike, without”
aukue [-re] “show off”
avekata “easy, simple”
avivike [-pa] “mark as important, pay respect towards, honor”
eg [−ia] “rejoice, feel pleasure”
era “sing”
geuru [-re] “snarl and spit”
isi [-re] “back up, reverse, reject, turn back on, turn back towards”
kasuipu “angry, cross, pissed off”
kaureo “contradict, disagree, stubbornly against, rebellious”
kausiopa “stubborn, unrelenting, concerned, anxious”
kavorou “covet, keep something intended for another, intercept”
keera “call for, beckon to, signal for meeting”
keri [-va] “make enemies with, reject friendship”
korukoru [-re] “block, obstruct, hinder, deter”
oive [-va] “shout, yodel, yell”
oove “menace, frighten with gestures, challenge with gestures”
oo [-va] “fornicate, commit adultery, rape”
ovaovari [-re] “forget something recently thought of, remember but not for long”
ovau [-re] “forget”
pako “break, raze, tear down”
papom “race, compete”
peu [-re] “forget”
poreo [-va] “commit incest”
rate [-va] “stare at”
reoreo [-re] “converse, discuss”
riata [-ia] “disclose, reveal hidden message, boast about something”
riu [-re] “irritate, pester”
rui “spit out”
ruipa [-pa] “like, want, desire”
sirava [-re] “hiss”
siririko [-re] “peep through opening”
sisivare “inspect, examine intently, search”
taeu [-pa] “deceive, deny, accuse”
takat [-re] “argue”
tarai “understand”
taratau [-pa] “embarrassed for lack of something”
tavitavi [-pa] “tell”
upia [-va] “in pain, sick”
ugaa [-va] “kiss someone”
vagu [-re] “proud”
vari [-re] “feint an action with a spear or axe, threaten”
vasiare “dislike”
vavagisi [-ia] “difficult, confused”
viiroo [-pa] “repulsive”
vik [-ia] “toss out, throw away, lose”
vikuta [-re] “whistle with the lips, tongue, or teeth”
viokeke “whistle with pursed lips”
voki “become night”
vootu “vote for, elect”
voroko [-va] “disobedient”
B.4  ⟨2⟩ [SUB, OBL] ||β|| (Total: 35)

Total: 35

aivaro “meet with, go directly to”
apo “miss out on something, come up short of”
atu “too much, overflow”
aveavero [−ia] “incite to anger”
iru “delouse”
kapecake “embrace, grip with arms not meeting”
kavikavi [−re] “combine, work together”
kaviko “love intensely”
kokkee [−re] “peek through a blind or crack”
koroto [−re] “meet together”
kuara [−va] “yell at”
kuga [−ia] “bump into, nudge”
oruo [−ia] “diligent”
pae “appropriate another’s possession, identify”
pitu [−ia] “hold, alight”
raavaa [−re] “ready, meet”
siga [−ia] “open”
siki [−re] “moon, expose bare ass to”
taagau [−ia] “step over something, jump over, pass over”
tagau [−ia] “jump over”
tagava “salute, shield the eyes with hand”
tara “look for, search for, seek”
tarata re [−ia] “unable to recognize, uncomprehending”
tare [−re] “await in vain”
tasiasi [−io] “stomp on, step on repeatedly”
tauo [−pa] “offer in ceremony”
tue “harvest, pick a leaf crop, wait”
uvisi [−ia] “grip tightly, hold onto firmly”
vato [−pa] “honor”
vaute “decorate with flowers, feathers, etc.”
viku [−va] “bark”
vikivi [?? − ia] “toss several things”
vorevore “repeat”
vura “look at, gaze upon”
vusi “burst forth, erupt, break out”

B.5  ⟨2⟩ [SUB, OBL] ||β|| (Total: 5)

Total: 5

piiio “point towards”
rekesi “explain clearly, recognize truth of”
vate [−pa] “give”
vatevate [−pa] “exchange”

B.6  ⟨2⟩ [SUB, O] ||β|| (Total: 482)

Total: 482

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Verb Analysis B.6 (2) [SUB, O] ||β|| (Total: 482)

- **aato** “answer”
- **aaviito** “purify, remove altogether”
- **aavito** “cure”
- **agaru** “complain”
- **agesi** “laugh at”
- **agiagi** “greet, welcome back, be reconciled”
- **agoagoto** “flatter”
- **aio** “eat”
- **aioaio** “snack”
- **airerei** “safeguard, protect”
- **ake** “ask”
- **akora** “charm with powder or with package of powerful objects”
- **aku** “salted”
- **apeapei** “claw at”
- **apei** “scratch”
- **apui** “dig a ditch”
- **are** “request, ask for, call for”
- **areii** “organize”
- **arirao** “harvest food”
- **aroviaku** “cool anger, pacify, persuade”
- **aruo** “weed garden”
- **arupa** “fertilize, cause growth in garden”
- **asita** “apply putty”
- **asivuru** “collect melons or cucumbers”
- **ate** “weigh, scale”
- **ateate** “weigh, scale”
- **ato** “harvest from tree by cutting or picking”
- **atoato** “wipe away, smear on”
- **auau** “quiet someone”
- **aue** “ignore”
- **avaavaeo** “sort out”
- **avaavao** “act simultaneously, anticipating”
- **avaisi** “spice food, flavor vegetables with aromatic plants or herbs”
- **aveverau** “release from one’s responsibility unintentionally”
- **avokori** “another kind, different, not recognized”
- **avu** “bite, remove”
- **avui** “make hole in the nose, pierce septum in nose”
- **avuru** “swarm, swarm on, be attracted to”
- **eaka** “hand over, give up, concede”
- **earova** “give generously without thought of reward”
- **eerii** “prompt someone to do something, urge someone to action”
- **egaega** “compliment, be enthusiastic”
- **epa** “peel, husk”
- **eri** “dig, chisel”
- **erieri** “dig, chisel”
- **eriirii** “persuade”
- **eriikasi** “push”
- **eto** “build a fire”
- **evei** “recognize”
- **gae** “follow”
- **gaegaere** “drift”
- **gagari** “plane wood”
- **gagarike** “scratch, rake with claw”
- **gago** “skin”
- **garigari** “scrape”
- **garu** “shave head with bladed instrument”
- **gas** “break, penalize, break the law, condemn”
- **gasigasi** “break into parts, splinter”
- **gatagata** “chew”
- **gatao** “extract out juice, suck out juice”
gatu “pour out, overflow into another vessel”
gavagava “soften, cook to soft texture”
gaveru “drop, lose grip”
gavi “wipe off, rub”
gerigeri “knaw on, bite lightly”
getege “spoil something, ruin something”
gétu “break”
gevo “secure something”
goagoa “???”
gogi “loot, take spoils”
goku “overlook, miss seeing”
go “break”
gopori “tickle”
gopu “break, take out of proper place, dislocate”
gore “bow down, bend down”
gori “turn aside from, separate from”
goro “dislodge, pry loose, take out”
gota “catch”
govugovu “clean out, purge”
gua “shake penis”
guagua “masturbate, jerk off”
gugi “twist”
gugiugi “twist repeatedly, screw or unscrew”
gugura “gather in a heap, bunch together”
gui “spray out”
guru “meet, heap up, assemble”
guruguru “gather in a heap, bunch together”
guvaguva “cool off”
guvi “come out of hiding, reveal something, expose”
iia “shoot”
ipe “dam up”
iraira “stretched out in front”
iire “shoo out of the way, warn of impending danger”
iruta “mess up, disorder, make untidy”
ito “struggle with, pull back and forth, grapple”
iusi “use”
ivia “investigate, scout out, test”
ivu “pull”
kaa “strangle”
kaapisi “pinch together, grip with pincers”
kaareko “scour, clean by scraping”
kae “carry”
kokapup “place in sling for purpose of carrying”
kokavu “scoop up with the hands”
kaki “crack open, split open”
kakiaki “crack open, fracture”
kaku “split open”
kakuak “break into pieces with instrument”
kape “eat after fasting”
kapara “roast without pan or container”
kaparu “short of, missing”
kapatau “augment, add to, cap up, supplement”
kapea “flimsy”
kap “join together, clamp together, fasten on coverstrips, put cover strips on house or wall”
kapokapora “carry between two people’s shoulders”
karakaraa “take without permission”
kara “deal out, divide up, apportion”
kareo “penetrate, pierce through”
kari “rip, tear”
<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>karikari</td>
<td>“tear, shred”</td>
</tr>
<tr>
<td>karo</td>
<td>“spoon out a liquid”</td>
</tr>
<tr>
<td>karokaropo</td>
<td>“deal out, distribute, send”</td>
</tr>
<tr>
<td>karopo</td>
<td>“portion out, divide up”</td>
</tr>
<tr>
<td>karu</td>
<td>“open, unlock, untie, unhook”</td>
</tr>
<tr>
<td>karukaru</td>
<td>“open”</td>
</tr>
<tr>
<td>karutu</td>
<td>“divide up, portion out”</td>
</tr>
<tr>
<td>kasi</td>
<td>“burn”</td>
</tr>
<tr>
<td>kata</td>
<td>“exhaust”</td>
</tr>
<tr>
<td>katuara</td>
<td>“scour”</td>
</tr>
<tr>
<td>kavakavau</td>
<td>“reproduce, bear many children”</td>
</tr>
<tr>
<td>kavau</td>
<td>“give birth”</td>
</tr>
<tr>
<td>kave</td>
<td>“whisper, reduce the strength or heat of something”</td>
</tr>
<tr>
<td>kaveruko</td>
<td>“hold in arms”</td>
</tr>
<tr>
<td>kavikaviru</td>
<td>“steal”</td>
</tr>
<tr>
<td>kaviru</td>
<td>“steal, rob”</td>
</tr>
<tr>
<td>kavo</td>
<td>“scavenge, pick up, collect”</td>
</tr>
<tr>
<td>kavokavo</td>
<td>“perform sorcery, work black magic”</td>
</tr>
<tr>
<td>kavu</td>
<td>“leave behind”</td>
</tr>
<tr>
<td>kavusi</td>
<td>“spit forcefully towards mark, spit out”</td>
</tr>
<tr>
<td>kee</td>
<td>“shatter, fracture, chip”</td>
</tr>
<tr>
<td>keke</td>
<td>“look at”</td>
</tr>
<tr>
<td>kepi</td>
<td>“fracture, break”</td>
</tr>
<tr>
<td>keravisi</td>
<td>“plough under, turn soil over”</td>
</tr>
<tr>
<td>kerete</td>
<td>“turn around”</td>
</tr>
<tr>
<td>kerikerisi</td>
<td>“evaluate, judge carefully”</td>
</tr>
<tr>
<td>kerisi</td>
<td>“discern, evaluate, judge talk or situation well”</td>
</tr>
<tr>
<td>ketaka</td>
<td>“notch out, make groove”</td>
</tr>
<tr>
<td>ketu</td>
<td>“break off, break off a piece”</td>
</tr>
<tr>
<td>kevaita</td>
<td>“kid, joke, jest”</td>
</tr>
<tr>
<td>kiki</td>
<td>“kick”</td>
</tr>
<tr>
<td>kikira</td>
<td>“mix meat and greens”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kikitausi</td>
<td>“tear off with teeth”</td>
</tr>
<tr>
<td>kio</td>
<td>“attract attention by touching, tapping, or scratching”</td>
</tr>
<tr>
<td>kipe</td>
<td>“cut grass with a sickle”</td>
</tr>
<tr>
<td>kipu</td>
<td>“paint, smear on surface”</td>
</tr>
<tr>
<td>kipukipu</td>
<td>“rub on, smear on, massage”</td>
</tr>
<tr>
<td>kiri</td>
<td>“rip open, tear open”</td>
</tr>
<tr>
<td>kiro</td>
<td>“write”</td>
</tr>
<tr>
<td>kirokiro</td>
<td>“write”</td>
</tr>
<tr>
<td>kitikutu</td>
<td>“scrub clothes”</td>
</tr>
<tr>
<td>kiu</td>
<td>“put in, insert”</td>
</tr>
<tr>
<td>koa</td>
<td>“bark, skin, peel”</td>
</tr>
<tr>
<td>koakoa</td>
<td>“bark a tree, remove the skin”</td>
</tr>
<tr>
<td>koara</td>
<td>“put together”</td>
</tr>
<tr>
<td>koe</td>
<td>“spoon out a solid”</td>
</tr>
<tr>
<td>koekoe</td>
<td>“spoon out”</td>
</tr>
<tr>
<td>kogo</td>
<td>“cut, chop”</td>
</tr>
<tr>
<td>koka</td>
<td>“agree”</td>
</tr>
<tr>
<td>koki</td>
<td>“chisel out, chip away”</td>
</tr>
<tr>
<td>koko</td>
<td>“pour, serve, dish out, portion out”</td>
</tr>
<tr>
<td>kokovu</td>
<td>“shave head”</td>
</tr>
<tr>
<td>koku</td>
<td>“break off at base, snap off at base”</td>
</tr>
<tr>
<td>kopa</td>
<td>“swallow, gulp down, ingest”</td>
</tr>
<tr>
<td>kopakopa</td>
<td>“swallow quickly, gulp down”</td>
</tr>
<tr>
<td>kopikopi</td>
<td>“baptize, sprinkle”</td>
</tr>
<tr>
<td>korita</td>
<td>“carve, carve, dissect, cut up”</td>
</tr>
<tr>
<td>koroviri</td>
<td>“braid, plait, twist together”</td>
</tr>
<tr>
<td>kosikosi</td>
<td>“cut off sago palm leaves”</td>
</tr>
<tr>
<td>kosipa</td>
<td>“???”</td>
</tr>
<tr>
<td>kotu</td>
<td>“bite”</td>
</tr>
<tr>
<td>kotukotu</td>
<td>“gnash teeth, grind teeth together”</td>
</tr>
<tr>
<td>kou</td>
<td>“lay egg, defecate”</td>
</tr>
<tr>
<td>kουkοou</td>
<td>“laugh heartily at”</td>
</tr>
<tr>
<td>kove</td>
<td>“fell”</td>
</tr>
<tr>
<td>kovokovo</td>
<td>“fence off, surround”</td>
</tr>
</tbody>
</table>
kovovo “fence, protect”
kukiuki “shake something, rattle something”
kuku “spoonfeed”
kupekupe “fan”
kuri “scrape, scratch, gnashing, gritting”
kurikasi “urge along, prod along”
kurikuri “scratch repeatedly”
kuru “strip off branches”
kururu “crumble something”
kusa “work sorcery, do black magic”
kuvu “fill up, put inside bamboo, clothe”
kuvukuvu “fill up, stamp the ground”
oapa “carry”
oe “vomit, sea sick”
oga “follow behind”
ogo “conceal, hide”
oku “miss, miss out on”
oovaau “track”
opari “lose”
opesi “end, finish”
opi “intercept, interrupt, cut across, shortcut”
orre “look intently, size something up, stare at”
ori “cook”
oriori “scrape, scratch”
oriorisi “suspect, distrust”
oriru “store away, keep, save”
orito “decorate”
orivo “name, label”
oru “trim down, shave away”
otu “sharpen to a point”
ou “get, take, receive”
ove “pour out”
ovingu “try”
paipai “blocked, obstructed, stymied”
pako “pull down”
paku “net”
pao “open something”
papu “extinguish, put out”
parasire “exchange places”
pare “remove from net”
paripari “split in half”
pariparikou “alternating, exchange repeatedly”
pau “plant, build”
perea “open”
pege “break into pieces”
pegepege “break open repeatedly”
peka “turn over, flip over, reveal, turn page”
peo “push, shove, heave”
peopeo “pump”
pera “shove, kick out of the way, motion aside”
perapera “kick repeatedly aside, shove out of the way”
pero “slice into planks, split apart”
peto “overturn, pour”
petopeto “rock to and fro”
pia “prune, trim off”
pigi “twist, squeeze, wring out”
pia “rape”
pikipiki “blind with light, dazzle with light”
pikopiko “whip”
piku “break, have tip broken off, nod the head”
pio “smear white substance from Pioto hot spring on something”
piopio “discuss, argue”
pire “allow to be harmed”
piro “mislead, divert, cause someone to err”
piruiri “wash”
<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>piruko</td>
<td>“forgive, restore, clean”</td>
</tr>
<tr>
<td>pisikui</td>
<td>“tie in knot, knot something”</td>
</tr>
<tr>
<td>pisipisikui</td>
<td>“tie in knot, knot something”</td>
</tr>
<tr>
<td>poera</td>
<td>“reveal, expose”</td>
</tr>
<tr>
<td>poo</td>
<td>“test out”</td>
</tr>
<tr>
<td>pooke</td>
<td>“bend taut”</td>
</tr>
<tr>
<td>porapora</td>
<td>“space apart”</td>
</tr>
<tr>
<td>porepore</td>
<td>“mix, steer”</td>
</tr>
<tr>
<td>poroporo</td>
<td>“break up into pieces”</td>
</tr>
<tr>
<td>poroporo</td>
<td>“wind along, follow winding path”</td>
</tr>
<tr>
<td>potu</td>
<td>“break off”</td>
</tr>
<tr>
<td>puaka</td>
<td>“????”</td>
</tr>
<tr>
<td>puepue</td>
<td>“weed”</td>
</tr>
<tr>
<td>pui</td>
<td>“sweep”</td>
</tr>
<tr>
<td>puko</td>
<td>“reply”</td>
</tr>
<tr>
<td>puki</td>
<td>“swell up, hump”</td>
</tr>
<tr>
<td>pukupukui</td>
<td>“mound up, hill up”</td>
</tr>
<tr>
<td>puerpu</td>
<td>“puff, blow”</td>
</tr>
<tr>
<td>pura</td>
<td>“make, do, create”</td>
</tr>
<tr>
<td>puraka</td>
<td>“spy out, survey”</td>
</tr>
<tr>
<td>purepure</td>
<td>“fan something”</td>
</tr>
<tr>
<td>puri</td>
<td>“lay on side, press down(?)”</td>
</tr>
<tr>
<td>putepute</td>
<td>“cut up, chop up”</td>
</tr>
<tr>
<td>raerae</td>
<td>“test, try out”</td>
</tr>
<tr>
<td>ragi</td>
<td>“whip, beat, thrash, whack”</td>
</tr>
<tr>
<td>ragui</td>
<td>“care for animals”</td>
</tr>
<tr>
<td>raku</td>
<td>“cover over”</td>
</tr>
<tr>
<td>rakuraku</td>
<td>“cover over”</td>
</tr>
<tr>
<td>rakuraku</td>
<td>“pile up trees or posts”</td>
</tr>
<tr>
<td>rao</td>
<td>“drain”</td>
</tr>
<tr>
<td>rapasi</td>
<td>“notch out with axe or knife in tree”</td>
</tr>
<tr>
<td>raravio</td>
<td>“loose grip on something”</td>
</tr>
<tr>
<td>rata</td>
<td>“heat up, sear, singe”</td>
</tr>
<tr>
<td>rataa</td>
<td>“trick”</td>
</tr>
<tr>
<td>ratarataa</td>
<td>“trick, deceive”</td>
</tr>
<tr>
<td>rau</td>
<td>“grab, hug, hold”</td>
</tr>
<tr>
<td>ravaa</td>
<td>“ready something, prepare, meet”</td>
</tr>
<tr>
<td>ravarava</td>
<td>“attempt, try”</td>
</tr>
<tr>
<td>raviravisi</td>
<td>“dodge, elude, go around, bypass”</td>
</tr>
<tr>
<td>ravoko</td>
<td>“hold onto”</td>
</tr>
<tr>
<td>ravu</td>
<td>“restrain, hold back”</td>
</tr>
<tr>
<td>ravutu</td>
<td>“file something”</td>
</tr>
<tr>
<td>reesi</td>
<td>“mark, measure”</td>
</tr>
<tr>
<td>reesireesi</td>
<td>“warn”</td>
</tr>
<tr>
<td>rego</td>
<td>“bend”</td>
</tr>
<tr>
<td>rekareka</td>
<td>“break apart, crack into pieces”</td>
</tr>
<tr>
<td>reko</td>
<td>“preserve, repair, correct”</td>
</tr>
<tr>
<td>rere</td>
<td>“smoke food”</td>
</tr>
<tr>
<td>resiresi</td>
<td>“warn”</td>
</tr>
<tr>
<td>retu</td>
<td>“cut into sections, section off by cutting”</td>
</tr>
<tr>
<td>returetu</td>
<td>“cut into sections, section off by cutting”</td>
</tr>
<tr>
<td>rigariga</td>
<td>“erase”</td>
</tr>
<tr>
<td>rigato</td>
<td>“write, print, type”</td>
</tr>
<tr>
<td>riri</td>
<td>“covet, envy”</td>
</tr>
<tr>
<td>roe</td>
<td>“place above”</td>
</tr>
<tr>
<td>roi</td>
<td>“have sex with, screw, fuck”</td>
</tr>
<tr>
<td>roo</td>
<td>“cut”</td>
</tr>
<tr>
<td>rooka</td>
<td>“portion out, dole out, share”</td>
</tr>
<tr>
<td>roorookaa</td>
<td>“divide into (two?) parts”</td>
</tr>
<tr>
<td>rugurugu</td>
<td>“heap together, gather together”</td>
</tr>
<tr>
<td>ruru</td>
<td>“cover, enclose, enwrap, envelop”</td>
</tr>
<tr>
<td>ruvaru</td>
<td>“medicate, give medicine”</td>
</tr>
<tr>
<td>sie</td>
<td>“wipe nose, move something away”</td>
</tr>
<tr>
<td>sigi</td>
<td>“deflate, reduce size of, release pressure in”</td>
</tr>
<tr>
<td>sigu</td>
<td>“take away and destroy, expel”</td>
</tr>
<tr>
<td>siguri</td>
<td>“miss the mark”</td>
</tr>
<tr>
<td>sigusigu</td>
<td>“shoo away”</td>
</tr>
<tr>
<td>Verb</td>
<td>Meaning</td>
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<tr>
<td>----------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>sigusiguva</td>
<td>“join together, weld together”</td>
</tr>
<tr>
<td>siguva</td>
<td>“join together, mix, join after, splice, add onto”</td>
</tr>
<tr>
<td>sii</td>
<td>“cut hair, groom hair”</td>
</tr>
<tr>
<td>sika</td>
<td>“separate, divide”</td>
</tr>
<tr>
<td>sikuro</td>
<td>“aid child or disabled person to walk, support physically”</td>
</tr>
<tr>
<td>siopai</td>
<td>“not recognized, be unfamiliar with”</td>
</tr>
<tr>
<td>siopore</td>
<td>“explain to, give counsel to, enlighten, elucidate for”</td>
</tr>
<tr>
<td>siovo</td>
<td>“feel, touch, sense”</td>
</tr>
<tr>
<td>sipa</td>
<td>“tear”</td>
</tr>
<tr>
<td>sipo</td>
<td>“send”</td>
</tr>
<tr>
<td>sipoko</td>
<td>“up-end, turn upside down”</td>
</tr>
<tr>
<td>sira</td>
<td>“cover over, weight down”</td>
</tr>
<tr>
<td>siresire</td>
<td>“make a flanged edge”</td>
</tr>
<tr>
<td>siruru</td>
<td>“give blessing, charm someone, decorate with charms”</td>
</tr>
<tr>
<td>sisi</td>
<td>“pacify, change a person’s mood or attitude”</td>
</tr>
<tr>
<td>sisiputa</td>
<td>“shake head or hands”</td>
</tr>
<tr>
<td>sisiputapa</td>
<td>“shake”</td>
</tr>
<tr>
<td>sisiu</td>
<td>“wash, wash off”</td>
</tr>
<tr>
<td>situe</td>
<td>“look, watch, observe”</td>
</tr>
<tr>
<td>sivesive</td>
<td>“peel, strip off”</td>
</tr>
<tr>
<td>soru</td>
<td>“work sorcery on”</td>
</tr>
<tr>
<td>sosope</td>
<td>“standby with disinterest, avoid”</td>
</tr>
<tr>
<td>sosovo</td>
<td>“taste, sample something, feel something”</td>
</tr>
<tr>
<td>taasi</td>
<td>“put together, complete something”</td>
</tr>
<tr>
<td>taava</td>
<td>“judge”</td>
</tr>
<tr>
<td>taavo</td>
<td>“anticipate, watch with anticipation”</td>
</tr>
<tr>
<td>taavore</td>
<td>“help, assist”</td>
</tr>
<tr>
<td>taavoto</td>
<td>“shoot accurately”</td>
</tr>
<tr>
<td>taga</td>
<td>“mark off, stake out”</td>
</tr>
<tr>
<td>tage</td>
<td>“insert, put inside”</td>
</tr>
<tr>
<td>tagi</td>
<td>“be responsible for, care for”</td>
</tr>
<tr>
<td>tagoro</td>
<td>“secretly do something, conceal from, secretly kill”</td>
</tr>
<tr>
<td>take</td>
<td>“build walls”</td>
</tr>
<tr>
<td>taketake</td>
<td>“cause trouble, rape”</td>
</tr>
<tr>
<td>taki</td>
<td>“hold, pin, hold steady, hold down”</td>
</tr>
<tr>
<td>takitaki</td>
<td>“fasten together”</td>
</tr>
<tr>
<td>takou</td>
<td>“cover up, package, cook in an enclosure”</td>
</tr>
<tr>
<td>tapa</td>
<td>“hit, slap, crucify”</td>
</tr>
<tr>
<td>taparako</td>
<td>“slap, punch in anger”</td>
</tr>
<tr>
<td>tapo</td>
<td>“fasten together, join together”</td>
</tr>
<tr>
<td>taporo</td>
<td>“conceal talk”</td>
</tr>
<tr>
<td>tapotapoko</td>
<td>“persist, stick to it”</td>
</tr>
<tr>
<td>tarauru</td>
<td>“polish”</td>
</tr>
<tr>
<td>tari</td>
<td>“surround, encircle”</td>
</tr>
<tr>
<td>tariko</td>
<td>“encircle, surround”</td>
</tr>
<tr>
<td>tario</td>
<td>“chase, pursue”</td>
</tr>
<tr>
<td>tarita</td>
<td>“smash, mash, mince, grind, chew”</td>
</tr>
<tr>
<td>taritariko</td>
<td>“go in circles”</td>
</tr>
<tr>
<td>taroro</td>
<td>“jack up, pry”</td>
</tr>
<tr>
<td>taruru</td>
<td>“flatten out, smash flat”</td>
</tr>
<tr>
<td>tavario</td>
<td>“exchange, change places”</td>
</tr>
<tr>
<td>tavo</td>
<td>“wall up with sago palm leaves”</td>
</tr>
<tr>
<td>tavore</td>
<td>“help, forgive”</td>
</tr>
<tr>
<td>tavuru</td>
<td>“cover up”</td>
</tr>
<tr>
<td>tesiko</td>
<td>“polish”</td>
</tr>
<tr>
<td>toaera</td>
<td>“give food as engagement invitation”</td>
</tr>
<tr>
<td>toe</td>
<td>“cut, chop, slice”</td>
</tr>
<tr>
<td>toetoe</td>
<td>“chop or cut repeatedly”</td>
</tr>
<tr>
<td>toga</td>
<td>“spear, shoot with a spear”</td>
</tr>
<tr>
<td>titoi</td>
<td>“shake, tap, pluck”</td>
</tr>
<tr>
<td>toko</td>
<td>“cut, break”</td>
</tr>
<tr>
<td>tokotoko</td>
<td>“cut, prune”</td>
</tr>
</tbody>
</table>

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Verb Analysis

B.6 (2) | SUB, O ||β|| (Total: 482)

too “punch, hit with hand or fist”
tooguu “ring-bark a tree to kill it”
toova “bury”
tosi “cut with blade”
tova “bury”
tovi “kid, jest, belittle”
tovitovi “restore to value, repair”
tovo “put, place, position”
tovotovo “distribute”
tovutovu “erode away, dig out”
tukituki “break into pieces”
tupa “close, lock”
turo “beckon to, go with, carry away”
turu “string up, sew up”
tutu “carry on the back”
tuuke “fasten, lock, nail”
tuuttuko “repay”
uga “force through”
ugo “fasten, close”
upo “strike, fight, murder”
ura “chew (betel nut)”
uraura “picture, photograph, film”
uriri “frighten, scare”
uririo “make tingle, cause prickly sensation”
urouro “exemplify, copy, repeat, reiterate”
ururau “hide from, secret away”
uto “shield, hide from view”
utuvai ko “surpass, pass by, beat”
uvere “join together, mix together”
uvu “hear, smell”
vaagi “pit cook, steam bake”
vaagore “persuade, trick”
vaavaavu “embitter”
vaere “hoe, turn over soil”
vagevage “???”
vago “slack, loosen, open”
vagogo “scout, spy on, scout out”
vagore “stop”
vaisi “name, call, label”
vaivaisi “name things”
vaki “mistake for something else, fail to recognize”
varia “fasten with a noose, trap with a noose”
varoova “care for, be responsible for”
varovaro “pursue, follow in pursuit”
vatavo “mix together, join together”
vatatopo “ready, prepare”
vatavu “hide”
vatavata “go around, by pass”
vatavatau “hide several things”
vatave “join together, include together with”
vea “lick”
veavea “lick”
veeku “disregard talk”
veepo “shove aside, move out of the way”
veera “line up, form a line”
veeto “slash through”
veevetera “line up, put in rows, form a line”
vega “cut one side”
vera “remove”
veravera “change, get rid of”
verete “move to one side, shove aside”
veriverisi “wander, make the rounds, on the move”
veruveru “scale fish, make circular marks”
veta “gnaw on”
veu “stain”
vaviatarau “clear”
vie i “count, read”
vieviei “enumerate, count”
vigu “loosen, slacken”
viiio “mimic, imitate, copy”
viiivii “strip away”
viko “fold, bend over, roll up”
viou “cut away, clean, sweep”
viovioe “exemplify”
virako “bless, do good supernaturally”
virava “???”
viri “twist”
viriviriko “twist something”
viroviro “entwine, wrap”
viruviru “move back and forth, retreat, make go back”
visi “poke, jab, hit”
visirako “whip, strike with object”
visivisi “beat a slit gong, tap”
vitu “excrete, urinate, defecate”
vivi “underestimate, be short of, slurp with the mouth”
vogo “roll up something flat”
vogovogo “crumple, wad up, knead”
voreri “oscillate, go back and forth, vascilate, repeat”
vori “cost, pay, buy”
voro “roll up, wind up”
voroo “hunt with dogs”
vovovo “warn, caution”
vuravura “scan, gaze, watch”
vurita “divide exactly in half”
vuroko “stone, throw rocks at, throw stones at”
vuruko “section off”
vuta “taste”
vutuo “carry on shoulders”
vututu “go altogether”
vuvure “blow”
Sample Texts

Here we provide two sample texts in Rotokas, which are retellings of a traditional folk tale describing the origins of the red leaves of the *Terminalia catappa* tree, a large tropical tree in the Family Combretaceae. This tree is known as “Talis” or “Talisa” in Tok Pisin, and goes by a variety of names in English: Java almond, Indian almond, Bengal almond, Singapore almond, Malabar almond, Tropical almond, Sea almond, or Umbrella tree. Although the two tellings of the story differ in various details, they share the same basic plot, which concerns a sacred taro that is mistakenly harvested by two girls. After being castigated by their parents and filled with shame and sorrow, they leave home for the coast, where they are eaten by a shark and their blood permanently stains the tree.

C.1 Matevu, Version 1

This version of the story was published in Rotokas in Firchow (1974a). A synopsis of the story is provided in English, but without line-by-line glossing or translation. (No author information is provided but David Akoitai is a likely source, given that he served as a consultant and co-author for a great deal of Firchow’s work on Rotokas—cf. Firchow and Akoitai (1974).) During my first fieldwork trip to Bougainville, native speaker consultants translated this story (and many others) into Tok Pisin. I then entered it into a Toolbox database, provided interlinear glossing, and translated it into English.

Firchow (1974a:???) claims that this folk tale and the associated song originate from the neighboring Austronesian language, Teop. Firchow (1974a) does not provide the basis for this claim, and admits parenthetically that the meaning of the lyrics is unknown: “Only the names of the taros, *Matevu* and *Siraveru* are recognized in the words of this song. The other words
remains unknown.” Although consultation with Ulrike Mosel and Ruth Spriggs has confirmed that the song is known in the Teop region, they deny that the lyrics are Teop. The provenience of the song and of the story is therefore an open question, leaving open the question of the directorality of borrowing. There is evidence of a good amount of lexical borrowing between Rotokas and Teop and in some cases the direction of borrowing appears to be into Rotokas from Teop. For example, the Rotokas word *okaoto* ‘taro’ appears to be a borrowing of the Teop word *kaoto* ‘taro’ along with its associated article *o* (Schwartz and Mosel, 2006).1

1 Shoffner (1976:291) also records the Teop word *kaoto* for *Terminalia catappa*.
(7) vo-kuio vaisi-aro Vatevu
   SING-round name-POSS name
   The name of this taro plant is Matevu.
   Name bilong dispela taro, Matevu.

(8) uva o-kuio-rei-ia vo-taru vearovira va
    so SPEC-round-DL.CL-LOC SING-bone good PPRO.3.SG.N
    rovo-pa-a-voi
    start-CONT-1SGβ-PRESβ
    ???
    ???

(9) vairei tavi-si-va
    PPRO.2/3.DL.F tell-3DL.M-RPβ
    The two of them told the two of them,
    Tupela i tokim tupela,

(10) ava-ere opo-a-vai ou-sia vegei-pa
    go-2DL.F taro-SG.N-INDEF get-DEP.SEQ PPRO.1.DL.EXCL-BEN
    The two of you go get some taro for us.
    “Yutupela go kisim wanpela taro bilong mitupela.”

(11) uva oavu oa vatatopo-pa-ere-vere
    so another RPRO.3.SG.N ready-CONT-2DL.F-NF
    And look out for something else.
    Na wanpela samting bai yutupela i lukaut long em.

(12) teapi Vatevu kuio ou-ere-vere
    lest name round get-2DL.F-NF
    You can’t get the Matevu taro.
    No ken kisim taro Matevu.

(13) ari Siraveru kuio ou-ere-vere
    but name round get-2DL.F-NF
    But you two will get Siraveru.
    Tasol yutupela kisim Siraveru.
Okay, the two of them heard his talk and went to the garden.
Orait, tupela i bin harim tok bilong tupela na tupela i go long gaden.

The two of them went.
Na tupela i bin go.

The two of them said to one another,
Na tupela i bin toktok.

The two of them told us about the taro.
Tupela i salim mitupela long kisim dispela taro.

And they didn’t get this taro, the Siraveru taro,
Na tupela i no bin kisim dispela taro Siraveru,

but the two of them got the Matevu taro.
tasol tupela i kisim Matevu,

the taro about which they [the parents] told them [the daughters] about.
dispela taro we tupela i bin tok lukaut nating long tupela.

You two musn’t get the Matevu taro.
Yutupela no ken kisim Matevu,
(22) ari Siraveru kuio ou-ere-ve  
    but name round get-3DL.F-SUB  
    but you two should get the Siraveru taro.  
    tasol bai yutupela kisim Siraveru.”

(23) ovoi-ei  
    finish-PRES$_\alpha$  
    Done.  
    Em inap.

(24) voa-vi-va kare-ere-i-epa vo-kuio-va ato-ia-re  
    here-DIM-ABL return-3DL.F-EPEN-RP$_\alpha$ SING-round-ABL harvest-LOC-ALL  
    From here the two of them return with the taro to the village.  
    Long dispela taim tasol tupela i bin karim dispela taro i go wantaim long ples.$^2$

(25) uva vo-kuio-va koata-ere-i-epa  
    so SING-round-ABL enter-3DL.F-EPEN-RP$_\alpha$  
    And the two of them went inside with the taro.  
    Na tupela i bin go insait wantaim.

(26) oire aite-toarei vo-kuio evei-si-va Vatevu kuio  
    okay father- SING-round recognize-3DL.M-RP$_\beta$ name round  
    Okay, the two parents recognized the taro, the Matevu taro.  
    Orait, tupela papa mama i bin luksave long dispela taro Matevu.

(27) uva oisio pura-si-epa  
    so like say-3DL.M-RP$_\alpha$  
    And they said,  
    Na tupela i bin tok olsem,

(28) viapau oisio vo-kuio-re vei tavi-ve-vo  
    NEG like SING-round-ALL PPRO.2.DL tell-1DL-IP$_\beta$  
    We didn’t tell you two about this taro.  
    Mitupela i no bin tokim yutupela long dispela taro.

(29) ari Siraveru kuio-re vei tavi-ve-vo  
    but name round-ALL PPRO.2.DL tell-1DL-IP$_\beta$  
    No, we told you two about the Siraveru taro.  
    Tasol mitupela tokim yutupela long Siraveru.

$^2$In the original, vokuiova is followed by vokuio. This inexplicable repetition is treated as a typsetting error here.
(30) *ari vuri-a pura-ere*
but wrong-SG.N make-2DL.F
But you two did a bad thing.
Tasol yutpela i wokim rong.

(31) *uva vairei kopii-pie-si-va*
so PPRO.2/3.DL.F die-CAUS-3DL.M-RP$_{_{_\beta}}$
And they killed the two of them.

???

(32) *oire voa-va uuwi-a-epa*
okay here-ABL sleep-3PL$_{_{\alpha}}$-RP$_{_{\alpha}}$
Okay, they slept.
Orait, ol i slip.

(33) *uva rirovira sirao-pa-ere-i-epa*
so big-time pity-CONT-3DL.F-EPEN-RP$_{_{\alpha}}$
The two of them were very sorry.
Na tupela i bin sori tru.

(34) *apeisi-vai pie-ve*
how-INDEF do-1DL
What do we do?
Bai mitupela mekim wanem?

(35) *uva vegei-vi-pa riro-a vate-si sirao-a Vatevu kuio-pa*
so PPRO.1.DL.EXCL-DIM-BEN big-SG.N give-3DL.M pity-SG.N name round-BEN vegei upo-pa-oro
PPRO.1.DL.EXCL hit-CONT-DEP.SIM
The two of them will make us very sorry for the Matevu taro by beating us.
Na tupela i givim bikpela sori long mitupela long taro Matevu.

(36) *viku-si-va vairei arova voo uvare avi-epa*

go.to.garden-3DL.M-RP$_{_{\beta}}$ PPRO.2/3.DL.F without here because sunset-RP$_{_{\alpha}}$
The two of them went to the garden without them at dawn.
Na tupela i lusim tupela i go long gaden taim i tulait.

---

3 Something is missing in this sentence, since it is clear from the rest of the story that the parents did not in fact kill the children.
(37) **oa iava sirao-pa-oror tou-pa-ere-ve arakasi-aro erava-ia**
RPRO.3.SG.N ABL pity-CONT-DEP.SIM be-CONT-3DL.F-SUB deserted-POSS song-LOC
**koova-pa-oror vo-kuio-rei va vaisi-pa-oror opo**
sing-CONT-DEP.SIM SING-round-DL.CL PPRO.3.SG.N call-CONT-DEP.SIM taro
**kuio-rei**
round-DL.CL
???
Long dispela tupela i bin stap na sori long ples

(38) **oarea-ia era-pa-oror oisio pura-ere-i-epa**
RPRO.3.DL.N-LOC sing-CONT-DEP.SIM like say-3DL.F-3PLβ-RPα
Singing about it, they said,
Tupela i bin singsing long dispela tupela na tok olsem,

(39) **Vatevu kuio-pa vei upo-re aite vaiterei ora aako**
name round-BEN PRO.PER.2.DL hit-3SG.Mβ father PRO.PER.2.DL.M and mother
Father will hit you for the Matevu taro, father and mother.
Long Matevu papa i paitim mitupela wantaim mama.

(40) **ari aue Siraveru kuio ou-ve-vo-ri oa-re vegei**
but CONN name round get-1DL-IPβ-2SGβ RPRO.3.SG.N-ALL PPRO.1.DL.EXCL
tavi-raga-re-vo
tell-only-3SG.Mβ-1Pβ
But we should have gotten the Siraveru taro which they told us about.
Tasol mitupela i mas bin kisim Siraveru em i bin tokim mitupela long em.4

(41) **uva varei-ia koova-pa-oror korovo pura-ere-va**
so DEM.MED.DL.N-LOC sing-CONT-DEP.SIM oil make-3DL.F-RPβ
And they made oil singing about the two of them.
Tupela i singsing long tupela singsing na mekim oil bilong kokonas.

(42) **reasi-pa-ei ra voo raga tou-pa-oror**
be.disinclined-CONT-PRESα COMP here only be-CONT-DEP.SIM
**ora-sirao-pie-pa-ve**
RR-pity-CAUS-CONT-1DL
It's no good for us to be here making each other feel bad.
I no gutpela long mitupela stap tasol long hia na mekim mitupela yet sori.

4The final suffix -ri on the verb ou is unrecognized.
(43) ari vearo-pa-ei ra tauai-vai-re ava-ve
   but good-CONT-PRES α COMP distant-INDEF-ALL go-1DL
   And it is good if we go far away.
   tasol em i gutpela sapos mitupela i go longwe.

(44) oire korovo ovi pura-ere-va va ovoi-ere-voi-va
okay oil liquid make-3DL.F-RP β PPRO.3.SG.N finish-3DL.F-PRES β-RP β
orapura-ere-i-epa
   appear-3DL.F-3PL β-RP α
The two of them made coconut oil and finished putting it on each other.
   Orait, tupela i bin wokim oil bilong kokonas na taim tupela i redim pinis, tupela i bin
   putim long skin bilong tupela yet.

(45) uva oravasie-ere-i-epa oira-ia era-pa-oro erava
so leave-3DL.F-EPEN-RP α PPRO.3.SG.F-LOC sing-CONT-DEP.SIM song
And the two of them left singing a song.
   Na tupela i stat wakabaut na singim dispela singsing.

(46) uva uva-vu-va avu-to vairei uvu-re-va osia
so so-ALT-ABL grandparent-SG.M PPRO.2/3.DL.F hear-3SG.M β-RP β as
   oira-ia era-pa-ere-i-epa
PPRO.3.SG.F-LOC sing-CONT-3DL.F-EPEN-RP α
   And their grandfather heard the two of them there as they sang it (the song).
   Long narapela hap bubu man i bin harim tupela.

(47) era-pa-oro ava-pa-ere-i-epa
   sing-CONT-DEP.SIM go-CONT-3DL.F-EPEN-RP α
The two of them sang as they went.
   Tupela i singsing i go.

(48) uva vairei iare vusi-re-va avu-rirei oisio
so PPRO.2/3.DL.F towards erupt-3SG.M β-RP β grandchild-DL.F like
He appeared to his two granddaughters,
Na em i bin go autsait long tupela bubu meri bilong em,

[5] In the original, the verb form provided was uvareva; however, the verb root uva does not exist. This is treated
as a typo and corrected here.
(49) *ovu iare ava-pa-ere-i-ei*
   where towards go-CONT-2DL.F-EPEN-PRES$_\alpha$
   Where are you two of you going?
   Yutupela i go we?

(50) *ovuvaia*
   No!
   Nowhere.
   Nogat hap.

(51) *ari vegei upo-si-vo aite vaio*
   but PPRO.1.DL.EXCL hit-3DL.M-IP$_\beta$ father DL.ANIM
   But our parents hit us.
   Tasol tupela papa i paitim mitupela.

(52) *uva riro-vira sirao-pa-oru ava-pa-ve-i-ei*
   so big-ADV pity-CONT-DEP.SIM go-CONT-1DL-EPEN-PRES$_\alpha$
   We are going feeling very sorry.
   Na mitupela i sori tru na mitupela i go.

(53) *uva sirao isi raga uutu-ro-epa vairei sirova*
   so pity round only follow-3SG.M$_\beta$-RP$_\beta$ PPRO.2/3.DL.F behind
   And this sorry is following behind us.
   Na long dispela bikpela sori tasol na em i bin bihainim tupela i go.

(54) *oire voka kata pura-re-va*
   okay walk exhaust make-3SG.M$_\beta$-RP$_\beta$
   He made an exhausting walk.
   Orait, em bin wakabaut na em i bin skin i dai.$^6$

(55) *uva vairei sirova uutu-pa-ro-epa*
   so PPRO.2/3.DL.F behind follow-CONT-3SG.M$_\alpha$-RP$_\alpha$
   And he followed behind them.
   Na em i bin bihainim tupela i go.$^7$

(56) *viapau oisio uvui-pa-ro-epa oisio ra voka-pa-re-ve*
   NEG like be.able-CONT-3SG.M$_\alpha$-RP$_\alpha$ like COMP walk-CONT-3SG.M$_\beta$-SUB
   He wasn't able to walk.
   Nogat em i no bin inap olsem bai em i wakabaut.

---

$^6$The form *kata* appears to function as a noun or classifier here, but this usage is unattested elsewhere.
$^7$The verb root *uutu* is spelled as *utu* in the original; however, its initial vowel is long.
(57) \textit{oa iava rera kapokoro-ere-va voa raiva-ro}  
\textit{RP.3.SG.N ABL PPRO.3.SG.M grip-3DL.F-RP\_3 here road-PL.CL}  
Because of this they held him on the road.  
Long dispela tupela i bin holim em long saitsait na go long rot.

(58) \textit{uva avaka-va iare vusi-ere-va rera-va oira raga-ia}  
\textit{so ocean-SG.F towards erupt-3DL.F-RP\_3 PPRO.3.SG.M-ABL PPRO.3.SG.F only-LOC}  
kova-\textit{PA-oro}  
\textit{grow-CONT-DEP.SIM}  
The two of them arrived at the ocean with him singing just this  
Na tupela i kamap long nambis wantaim em, na singim dispela singsing.

(59) \textit{osia rera-vi kopi\textit{ii-oro-epa vo-ro-gara ua}}  
\textit{as PPRO.3.SG.M-DIM die-3SG.M\_\alpha-RP\_\alpha SING-sand CLASS}  
as the poor one died on the beach.  
long taim trangu i bin dai long arere long nambis.

(60) \textit{uva rera-va ava-pa-ere-i-epa}  
\textit{so PPRO.3.SG.M-ABL go-CONT-3DL.F-EPEN-RP\_\alpha}  
The two of them went with him,  
Na tupela i bin go wantaim daiman karim em tasol.

(61) \textit{vo-kopi\textit{i raga-ia kae-raga-pa-oro ava-pa-ere-i-epa}  
\textit{SING-die only-LOC carry-only-CONT-DEP.SIM go-CONT-3DL.F-EPEN-RP\_\alpha}  
they went just carrying the dead man.}  
None

(62) \textit{uva reasi-or\textit{o uva-vu rera tova-ere-va vairei raga}  
\textit{so be.disinclined-DEP.SIM so-ALT PPRO.3.SG.M bury-3DL.F-RP\_\beta PPRO.2/3.DL.F only}  
av\textit{a-oro}  
go-DEP.SIM  
And the two of them buried him and went.  
Na tupela i bin les na planim em long wanpela hap na tupela tasol i bin go.

(63) \textit{uva gau-pa-oro ava-pa-ere-i-epa}  
\textit{so cry-CONT-DEP.SIM go-CONT-3DL.F-EPEN-RP\_\alpha}  
And they cried as they went.  
Na tupela i krai i go.
(64) aako vaio-vi vegei viki-si-vo voraro-re
mother DL.ANIM-DIM PPRO.1.DL.EXCL throw.away-3DL.M-IP$_{\beta}$ around-ALL
Our parents threw us away around here.
Tupela mama ol i troim mitupela nabaut long hia.

(65) ovoi-ei
finish-PRES$_{\alpha}$
Done.
Em inap.

(66) oire voa-va keke-ere-va uva oisioa vuri-to tou-pa-re-ve
okay here-ABL look.at-3DL.F-RP$_{\beta}$ so always bad-SG.M be-CONT-3SG.M$_{\beta}$-SUB
roo ira oisioa oira aio-pa-ro
DEM.PROX.SG.M RPRO.3.SG.M always PPRO.3.SG.F eat-CONT-3SG.M$_{\alpha}$
Okay, from there the two of them looked and a bad man who always ate people was there.
Orait, tupela i bin lukim hap dispela man nogut i bin save stap em i save kaikai ol man.

(67) uva voa-va vo-pouka keke-ere-va evao pouka va vaisi-aro
so here-ABL SING-lean look.at-3DL.F-RP$_{\beta}$ tree lean PPRO.3.SG.N name-POSS
okaoto pouka
talis lean
And then the two of them saw a bent-over tree, the name of which was ‘talisa’.
Na bihain tupela lukim dispela diwai em i krungut, nem bilong dispela em talisia.

(68) oire vo-rao-ia ava-ere-i-epa
okay SING-branch-LOC go-3DL.F-EPEN-RP$_{\alpha}$
Okay, the went on this branch.
Orait, tupela i go antap long dispela han diwai.

(69) vo-rao-ia ava-ere-i-epa pouka rao
SING-branch-LOC go-3DL.F-EPEN-RP$_{\alpha}$ lean branch
They went on this branch, the leaning branch.
Tupela i go antap long dispela han diwai krungut.

(70) uva voa-va era-pa-oro vo-rao ivara-ia tou-pa-ere-va
so here-ABL sing-CONT-DEP.SIM SING-branch on-LOC be-CONT-3DL.F-RP$_{\beta}$
And they were on top of the branch singing.
Na tupela i singsing taim tupela i stap antap long dispela han.

---

*The original text contains a typo: *voavo* instead of *voava*. 
And the one who came, the one who was always eating people, his name was VakuVaku.

Na dispela man ya i bin kam em i save kaikai ol man.\(^9\)

The spirit, his name was VakuVaku.

Nem bilong masalai, em VakuVaku.

The two of them waited for him to come.

Na tupela i lukim em, em i kam nau.

And the two of them talked,

Na tupela i wok long toktok long tupela yet.

Hey! You go ahead first.

Goan yu go pas nau.

And she said,

Na wanpela meri i tok olsem,

The word VakuVaku also means ‘cynic’ or ‘skeptic’. It is unclear whether the two meanings are somehow related.

---

\(^9\)The word VakuVaku also means ‘cynic’ or ‘skeptic’. It is unclear whether the two meanings are somehow related.
(78) oire iria-vu topogovira oraviki-o-epa
  okay RPRO.3.SG.F-ALT recklessly jump-3SG.F₁-RP₁
  Okay, one recklessly jumped.
  Orait, wanpela i bin kalap i go stret.

(79) teapi vorevira sirao-ve aite vaio-re ra vorevira vore-ve
  lest backward pity-1DL father DL.ANIM-ALL COMP backward return-1DL
  Lest we feel sorrow for our parents and go back.
  Nogut mitupela sori bek long tupela papa na bai mitupela i go bek.

(80) uva oira kopa-oro revasiva oe-re-va vorevira okaoto
  so PPRO.3.SG.F swallow-DEP.SIM blood vomit-3SG.M₂-RP₂ backward talis
  kavusi-sia
  spit.out-DEP.SEQ
  And when he [the shark] swallowed the blood, he threw it back up on the talis tree.
  Na taim em i daunim meri, em trautim blut i spet i go bek long talisia.

(81) uva ovio-o-va uutu-o-epa
  so be.last-DERIV-SG.F follow-3SG.F₁-RP₁
  And the last woman followed.
  Na laspela meri i bin go bihain.

(82) uva oisio ita pie-re-va oira kopa-oro rera
  so like again do-3SG.M₂-RP₂ PPRO.3.SG.F swallow-DEP.SIM PPRO.3.SG.M
  kavusi-re-va vao iava
  spit.out-3SG.M₂-RP₂ DEM.PROX.3.SG.N RPRO.3.SG.N ABL
  He did it again, he swallowed her and spat it out.
  Na em i bin mekim olseng gen, em i bin daunim meri na spetim em.

(83) ovoi-ei
  finish-PRESₐ
  Done.
  Em inap.

(84) rovi-ro-epa okaoto vosia veve-pe vo-guruva ra oira pura-ve
  mix-3SG.M₁-RP₁ talis when ripe-SUB SING-leaf COMP PRO.PER.3.SG.F make-1DL
  revasiva oo iria pura-ere-va voo vorevira
  blood DEM.PROX.SG.F PRO.REL.3.SG.F make-3DL.F- here backward
The talisa tree mixes when its leaves ripen and the blood that was spit out makes it red.

(85) oire eva oira opesipie-aro-ia vo-siposipo
okay DEM.MED.SG.N PPRO.3.SG.F finish-POSS-LOC SING-story
Okay, that is the end of the story.
Orait, pinis bilong dispela meri em pinis bilong dispela stori,

(86) opesipie-aro-ia aue iava oo erava vo-siposipo iava vairei
finish-POSS-LOC CONN ABL DEM.PROX.SG.F song SING-story ABL PPRO.2/3.DL.F
Orait, pinis bilong dispela meri em pinis bilong dispela stori,

C.2 Matevu, Version 2

This version of the folk tale was recorded in the village of Togarao in 2003 and then transcribed by Timothy Taureviri and translated into Tok Pisin by Sera Mon before being entered into Shoebox and translated into English by the author. The narrator of the story is Caleb Karuru (shown in Figure 2.3), an older speaker of Rotokas who also worked with Irwin Firchow.

(1) oire erao-pie-pa siposipo-a vao oo
okay two-CAUS-DERIV story-SG.N DEM.PROX.3.SG.N RPRO.3.SG.N
pura-pa-a-voi
make-CONT-1SGβ-PRESβ
Okay, this is the second story I want to tell.
Orait, em numba tu stori mi laik wokim.

(2) oavao-vu iava oisoa tou-pa-i-ve
family-ALT ABL always be-CONT-3PLβ-SUB
It’s about a family that existed.

10 This sentence was overlooked by consultants when the text was translated into Tok Pisin.
Long wanpela pamili i bin save i stap.

(3) o-avuka-rei-vu-ia va aiterei-ia oisoa tavauru-rirei
SPEC-age-DL.CL-ALT-LOC PPRO.3.SG.N PPRO.3.DL.M-LOC always teenage.girl-DL.F
tapo oiso tou-pa-si
also like be-CONT-3DL.M
A couple with two young girls.
Long tupela marit ol i bin save stap wantaim tupela yangpela pikanini meri.

(4) ovii-rirei
child-DL.F
Two daughters.
Tupela pikanini meri.

(5) oire kovoa-ia opo kovo rera vo-kovo-aroeva
okay garden-LOC taro garden PPRO.3.SG.M SING-garden-POSS DEM.MED.SG.N
None
Orait, long dispela gaden bilong em.

(6) vo-aao vo-kovo-aroeva opo kovo raga pura-pa-i-ve opo kovo
SING-family SING-garden-POSS taro garden only make-CONT-3PL.β-SUB taro garden
raga pura-pa-i-ve
only make-CONT-3PL.β-SUB
This family, they just worked the taro garden.
Dispela pamili em wok bilong ol long wokim gaden taro tasol.

(7) viapau oisio oauuvu-vai arivara vo raga opo
NEG like something-INDEF but PPRO.3.SG.N only taro
There wasn’t anything else, just taro.
Nogat narapela samting, tasol em taro tasol.

(8) oire vosia vo-kovo siovara-ia vo-kuio-rei tou-pa-i-ve
okay when SING-garden inside-LOC SING-round-DL.CL be-CONT-3PL.β-SUB
Okay, inside of this garden, there were two taro.
Orait, na insait long dispela gaden tupela taro i bin save i stap.

(9) virapie kuio-rei-vi oarea oisoa vaisi-pa-i-ve oisio Vatevu ora
transfer round-DL.CL-DIM RPRO.3.DL.N always call-CONT-3PL.β-SUB like name and
Siraveru
name
These two taro, they called them ‘Vatevu’ and ‘Siraveru’. 
Dispela tupela taro hia ol i save kolim olsem 'Vatevu' wantaim 'Siraveru'

(10) evo kuio-rei oarea pau-re-va
DEM.N round-DL.CL RPRO.3.DL.N build-3SG.Mβ-RPβ
These two taro that he planted.
Dispela tupela taro em i bin planim.

(11) oire oisoa tou-pa-i-ve
okay always be-CONT-3PLβ-SUB
Okay, they were there.
Orait, ol i bin save stap.

(12) uva riro-epa vo-opo kovo siovara-ia
so grow_up-RPα SING-taro garden inside-LOC
They grew big inside of the taro garden.
Na tupela taro i bin kamap bikhela insait long gaden taro.

(13) uva o-voki-vu-ia vairei tavi-pa-si-va
so SPEC-day-ALT-LOC PPRO.3.DL.F tell-CONT-3DL.M-RPβ
Okay, one day the two of them talked to the two of them,
Orait, na tupela i bin tokim tupela pikinini bilong tupela olsem,

(14) ai kovo-sia ava-pa-ere-i-ei opo kovo-ia kovo-sia
hey work-DEP.SEQ go-CONT-3DL.F-EPEN-PRESα taro garden-LOC work-DEP.SEQ
ava-pa-ere-i-ei opo kovo-ia
go-CONT-3DL.F-EPEN-PRESα taro garden-LOC
Hey, you two go work in the taro garden, you two go work in the taro garden.
Bai yutupela go wok long gaden taro, bai yutupela go wok long garden taro.

(15) oire ava-ere-i-epa ava-ere-i-epa ava-ere-i-epa
okay go-3DL.F-3PLβ-RPα go-3DL.F-EPEN-RPα go-3DL.F-EPEN-RPα
Okay, the two of them went, they went, they went.
Orait, tupela i bin go, tupela i bin go, tupela i bin go.

(16) oisoa oisiopie-pa-ere voki-ara rutu-ia oisoa oisiopie-pa-ere voki-ara
always pretend-CONT-3DL.F day-PL.N very-LOC always pretend-CONT-3DL.F day-PL.N
rutu-ia kovo-pa
very-LOC garden-BEN
The two of them always did this, they always did this for the garden.
Na tupela i bin save mekim olsem olgeta taim, [???] 11

(17) voki-ara rutu-ia kovo-pa-siia ava-pa-ere
day-PL.N very-LOC work-CONT-DEP.SEQ go-CONT-3DL.F
Every day the two of them went to work.
Olgeta dei tupela i bin save go wok.

(18) uva opo kuio tate-ere-va
so taro round extract-3DL.F-RP β
And the two of them removed (dug up) a taro.
Na tupela i bin kamautim wanpela taro.

(19) vo-kuio-rei iava virapie kuio-rei rera varei-aro
SING-round-CL ABL transfer round-CL PPRO.3.SG.M DEM.MED.DL.N-POSS
oarea oisoa virapievira toki-pa-re-ve rera
RPRO.3.DL.N always transferred-like look.after-CONT-3SG.M β-SUB PPRO.3.SG.M
Long dispela tupela taro bilong em em i bin save lukautim narakain.

(20) oire vosia varei-va kare-ere-i-epa
okay if DEM.MED.DL.N-ABL return-3DL.F-EPEN-
When the two of them returned with these two (taro),
Orait, na taim tupela i bin karim i go,

(21) uva varei evei-re-va rera aite-to
so DEM.MED.DL.N recognize-3SG.M β-RP β PPRO.3.SG.M father-SG.M
their father recognized the two (taro).
Olsem na papa bilong em i bin luksave long tupela taro.

(22) ai vairei-o apeisi oisoa ragavira keke-pa-ei vo-kuio-ia
hey PPRO.3.DL.F-? how like just look-CONT-PRES α SING-round-LOC
Hey, why do these two taro look this way?
Eh, olsem wanem na dispela tupela taro i luk olsem?

(23) oiso osia vo-kuio-rei-o oarea iava vei tavi-pa-a-veira
like as SING-round--? RPRO.3.DL.N ABL PPRO.2.DL tell-CONT-1SG.M β-HAB.ANIM
These are the two taro that I am always telling you about.
Em olsem dispela tupela taro mi bin save tokim yutupela long em.

11Not sure about the analysis of last word (kovopa). Is it really a noun?
(24) aure evoa vairei-re reo-pa-si-epa
Yes DEIC.MED PPRO.3.DL.F-ALL talk-CONT-3DL.M-RP$_{\alpha}$
Yes, the two of them told them,
Tupela i bin tokim tupela.

(25) vuri-a pura-ere-voi rutu
wrong-SG.N make-3DL.F-PRES$_{\beta}$ very
the two of you did very bad.
Yutupela i wokim pasin nogut.

(26) uva opo-a tate-ere-voi virapie kuio rutu vao-ia
so taro-SG.N extract-3DL.F-PRES$_{\beta}$ transfer round very DEM.PROX.3.SG.N-LOC
The two of them took out this taro that was truly different.
Na yutupela i kamauit dispela taro em i narakain tru. [Not sure if the last word is properly analyzed (check transcription).]

(27) oire vairei-re kasipu-si-epa vaitei rutu
okay PPRO.3.DL.F-ALL angry-3DL.M-RP$_{\alpha}$ PPRO.2.DL.M very
Okay, the two of them (the parents) were really angry with the two of them (the children).
Orait, tupela wantaim i bin krosim tupela.

(28) uva riti-pa-oro uusi-sia koata-ere-epa
so ashamed-CONT-DEP.SIM sleep-DEP.SEQ enter-3DL.F-EPEN-RP$_{\alpha}$
So two of them went inside to sleep in shame.
Olsem na tupela i bin kros na tupela i bin go insait

(29) viapau aio-ere-va
NEG eat-3DL.F-RP$_{\beta}$
The two of them didn’t eat.
taim ol i no kaikai.

(30) ari uusi-raga-sia koata-ere-i-epa
but sleep-only-DEP.SEQ enter-3DL.F-3PL$_{\beta}$-RP$_{\alpha}$
But the two of them went inside and just slept.
Em tupela i bin go insait na slip nating.

(31) ora-reo-pa-ere-i-epa
RR-talk-CONT-3DL.F-EPEN-RP$_{\alpha}$
The two of them talked,
Na tupela i bin toktok,
(32) apeiši ragavira pie-pa-ve-voi
   how only do-CONT-1DL-PRES_β
What will we do?
   Bai mitupela i mekim wanem?

(33) ee raga ava-pa-ve-i-ei
   hey only go-CONT-1DL-EPEN-PRES_α
Should the two of us go?
   Bai mitupela i go?

(34) ava-pa-ve-i-ei rara ritu-pa-oro
   go-CONT-1DL-EPEN-PRES_γ later disgusted-CONT-DEP.SIM
We’re embarrassed and we’ll go.
   Bai mitupela i kros na i go.

(35) oire uusi-ere-epa uusi-ere-epa uusi-ere-epa
okay sleep-3DL.F-RP_α sleep-3DL.F-RP_α sleep-3DL.F-RP_α
The two of them slept, the two of them slept, the two of them slept.
   Orait, tupela i bin slip, tupela i bin slip, tupela i bin slip.

(36) uva voari rutu vokipakou rutu tore-ere-i-epa
   so before very morning very stand-3DL.F-EPEN-RP_α
In the early morning the two of them got up.
   Olsem na long moning tru tupela i bin kirap.

(37) oravasike-ere-i-ei
   leave-3DL.F-EPEN-PRES_α
The two of them left.
   Tupela i bin kirap i go.

(38) vasike-ere-i-ei voka-pa-oro
   leave-3DL.F-EPEN-PRES_α walk-CONT-DEP.SIM
The two of them left on foot.
   Tupela i bin kirap i go wokabaut.

(39) ava-ere-i-ei
   go-3DL.F-EPEN-PRES_α
The two of them went,
   Tupela i bin go.
(40) ava-ere-i-ei
go-3DL.F-EPEN-PRES<sub>a</sub>
the two of them went.
tupela i bin go

(41) ai aite vaio vegei-re reo-pa-si-e opo
hey father DL.ANIM PPRO.1.DL.EXCL-ALL talk-CONT-3DL.M-IP<sub>a</sub> taro
kuio-rei-pa Vatevu kuio-rei ora Siraveru kuio
round-DL.CL-BEN name round-DL.CL and name round
Hey, our parents talked to the two of us about the two taro, Vatevu and Siraveru.
Ae, tupela papa i krosim mitupela long tupela taro, Vatevu wantaim Siraveru.

(42) oire iria-vu koova-va iria-ia kovo-pa-oro
okay RPRO.3.SG.F-ALT song-SG.F RPRO.3.SG.F-LOC work-CONT-DEP.SIM
voka-pa-ere-va raiva-ro
walk-CONT-3DL.F-RP<sub>b</sub> road-PL.CL
Okay, this song they sang as they walked on the road.
Orait, wanpela singsing tupela i bin singim taim tupela i wakabaut i go long rot.

(43) iria-ia oisoa koova-pa-a-ve voari tuariri vo-siposipo
RPRO.3.SG.F-LOC always sing-CONT-3PL<sub>a</sub>-SUB before before SING-story
pura-pa-oro
say-CONT-DEP.SIM
They always sang this long ago telling this story.
Dispela singsing em ol i bin save singim bipo taim ol i wokim dispela stori.

(44) uva oira-ia koova-pa-ere-i-epa oisio ragaviga
so PPRO.3.SG.F-LOC sing-CONT-3DL.F-EPEN-RP<sub>a</sub> like just
So the two of them sang this song just like this,
Na tupela i bin singim dispela singsing olsem,

(45) -
-
SONG
SING-SING [Vatevu are vatevu vatevua siraveru sakara veru paiuei paiuei vo iaro va.]
(46) oire ava-pa-ere-i-epa ava-pa-ere-i-epa
go-CONT-3DL.F-EPEN-RPα go-CONT-3DL.F-EPEN-RPα
ora-sirao-pie-pa-oro
RR-pity-CAUS-CONT-DEP.SIM
The two of them went, feeling sorry for themselves.
Orait, tupela i bin go, tupela i bin go, na mekim sori tupela yet.

(47) gau-pa-oro ava-pa-ere-i-epa vo-raiva-ro
cry-CONT-DEP.SIM go-CONT-3DL.F-EPEN-RPα SING-road-PL.CL
The two of them went crying along the road.
Tupela i bin krai i go long rot.

(48) osia vairei vore-raga-pa-oro uutu-pa-ro-epa
as PPRO.3.DL.F return-only-CONT-DEP.SIM follow-CONT-3SG.Mα-RPα
He was tired following them.
Olsem na em i bin tait long pasim tupela.

(49) vairei vore-raga-pa-oro uutu-pa-ro-epa osia viapau rutu
PPRO.3.DL.F return-only-CONT-DEP.SIM follow-CONT-3SG.Mα-RPα as NEG very
He was tired of following the two of them.
Em i bin tait long pasim tupela tasol nogat tru.

(50) uva vairei vuripie-si-va rutu vo-avuka-rei vairei-re
so PPRO.3.DL.F ruin-3DL.M-RPβ very SING-age-DL.CL PPRO.3.DL.F-ALL
kasipu-pa-oro
angry-CONT-DEP.SIM
The two of them harmed the two of them when they got angry.
Na tupela i bin bagarapim tupela taim tupela i krosim ol.

(51) ava-pa-ere-i-epa ava-pa-ere-i-epa avakava-re
go-CONT-3DL.F-EPEN-RPα go-CONT-3DL.F-EPEN-RPα ocean-ALL
tara-pa-oro ava-pa-ere-i-epa
seek-CONT-DEP.SIM go-CONT-3DL.F-EPEN-RPα
The two of them went, they went to the ocean.
Tupela i bin go, tupela i bin go, tupela i bin go bilong painim solwara.

(52) avakava-re tara-pa-oro ava-pa-ere-i-epa
ocean-ALL seek-CONT-DEP.SIM go-CONT-3DL.F-EPEN-RPα
The two of them went to find the ocean.
Tupela i bin go bilong painim solwara.
The two of them sang and wherever they went, they two sang again.

Tupela i bin singsing na go wanem hap tupela i kamap bai tupela singim gen.

The two of them went, the two of them went.

The two arrived on the hill.

They looked at the village.

The two of them went over (the mountain).

The two of them went, they went, they went, and they went.

Tupela i bin go, tupela i bin go, tupela i bin go, tupela i bin go.
The two of them sang again.

Tupela i bin singsing gen.

None

SING-SING

Okay, the two of them came to the ocean.

Orait, tupela i bin kamap long solwara.

One tree, they call ‘okaoto’. [Double-check recording (transcription of second word).]

The two of them walked up on the leaning (tree).

The two of them went, they sat down, and they sang.

The two of them went, they sat down. Tupela i bin sindaun na singsing.
(68) pau-pa-ere-i-epa  tue-pa-oro  osia riro-to  siaka
sit-CONT-3DL.F-EPEN-RP_α  wait-CONT-DEP.SIM  as  big-SG.M  shark
urio-ro-epa  urio-ro-epa
come-3SG.M_α-RP_α  come-3SG.M_α-RP_α
The two of them sat down and waited when one big shark came.
Tupela i bin sindaun na wait taim wanpela bikpela sak i bin kam.

(69) oire  okaoto-va  reroaro  viri-pa-re-va
okay  talis-SG.F  underneath  twist-CONT-3SG.M_β-RP_β
Okay, he circled under the tree.
Orait, na em i bin raun undanit long talisa.

(70) viri-pa-re-va
twist-CONT-3SG.M_β-RP_β
He went around
Em i bin raun

(71) vairei  gesi-re-va
PPRO.3.DL.F  smell-3SG.M_β-RP_β
and smelled them.
taim em i smelim tupela.

(72) viri-pa-re-va
twist-CONT-3SG.M_β-RP_β
He went around.
Em i raun.

(73) oire  avaio-pa-va  isiva  oari  tavi-pa-e-va
okay  first-born-DERIV-SG.F  turn.back.on  DEM.DIST.SG.F  tell-CONT-3SG.F_β-RP_β
kikoo-pa-va
second-born-DERIV-SG.F
Okay, the big sister told the little sister.
Orait, bikpela sista bilong em i bin tokim liklik sista bilong em. [Double-check
recording (transcription of third word).]

(74) oraviki  rovo-pa-u-ei  vii
jump  start-CONT-2SG_α-PRES_α  PPRO.2.SG
You jump off first.
Bai yu kalap pastaim.
Okay, for the last time the two of them sang this song.

Orait, na laspela taim tupela i bin singim dispela singsing.

Here the two of them lept as the shark eats her while her blood goes back onto the leaves of the tree.

Long hap em i bin kalap na sak i bin daunim em taim blut i bin kala p i go antap long lip bilong talisa.

When he finished her, he twisted around again.

She knew that her sister was finished and jumped.

This last one remained.

Dispela laspela i bin stap.

When he finished her, he twisted around again.

Taim em i pinis kaikai em na em i bin wok long raun.

She knew that her sister was finished and jumped.

Na em i bin save olsem em i pinisim susa bilong em na em i bin kalap.
(81) oire eira ita revasi-aro voari-re okaoto guruva iare
okay DEM.MED.SG.F again bleed-POSS before-ALL talis leaf towards
kae-o-viro-ei
carry-3SG.F$_{\alpha}$-COMPL-PRES$_{\alpha}$
Okay, the blood of this girl was carried back on top of the leaf of the tree again.
Orait, blut bilong dispela narapela meri em i go antap gen long lip bilong talisa.

(82) oire oisio oisoa va aue-pa-i-ve
okay like always PPRO.3.SG.N ignore-CONT-3PL$_{\beta}$-SUB
Okay, so they would always think this way.
Orait, na ol i bin save tingting olsem,

(83) va eva siposipo-a opesi-aro
PPRO.3.SG.N DEM.MED.SG.N story-SG.N end-POSS
That’s the end of the story.
Em i pinis bilong stori.

(84) oire voa-va reo-pa-ra-ei aue iava okaoto-a-i oisio osia
okay here-ABL talk-CONT-1SG$_{\alpha}$-PRES$_{\alpha}$ CONN ABL talis-? like as
pura-pa-ve evairei revasi-aro-a evairei okaoto-a-ia
make-CONT-SUB DEM.MED.DL.F bleed-POSS- DEM.MED.DL.F talis-SG.N-LOC
voto-ere-i-epa
stuck-3DL.F-EPEN-RP$_{\alpha}$
Okay, I’ll talk about the talisa ???.
Orait, mi laik toktok long talisa em olsem but bilong tupela meri i bin pas long ol lip.
[Need to double-check–especially voava, which was originally transcribed as vova.]

(85) oire vosia okaoto keke-pa-ri osia veve-pa-ei revasivira
okay if talis look.at-CONT-2SG$_{\beta}$ as ripe-CONT-PRES$_{\alpha}$ bloody
Okay, if you look at this tree as it ripens and turns red, it’s the blood of two women.
Orait, sapos yu lukim talisa taim lip bilong em i red, em blut bilong tupela meri.

(86) oire eisi-vira raga osia opesi-ei
okay like this-ADV only as finish-PRES$_{\alpha}$
That’s how it ends.
Orait, em i pinis olsem.
(87) osia vo-siposipo reo pura-a-voi
    as    SING-story talk make-1SGβ-PRESβ
As I work this story,
   Olsem mi wokim dispela tupela stori.

(88) ragai    Caleb Karuru
    PPRO.1.SG name name
I’m Caleb Karuru.
    Mi, Caleb Karuru.


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