

**The Expansion of War and Violence in Tok Pisin:
A Cognitive and Corpus Study on Polysemy in *Pait* and *Paitim***

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**The Expansion of War and Violence in Tok Pisin: A Cognitive and Corpus Study on
Polysemy in *Pait* and *Paitim***

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Abstract

From its early development, catalyzed by mass displacement and forced relocation of Melanesian people, Tok Pisin has flourished into a thriving language of mixed origins in Papua New Guinea. This honours thesis considers polysemy—which is when a word has multiple meanings that are related to one another—for war and violence vocabulary in Tok Pisin. Specifically, it presents a Cognitive Linguistic analysis of *pait* ‘fight’ and also the transitive form, *paitim* ‘hit’, that is rooted in corpus linguistics and etymology studies. It is shown that all the meanings associated with *pait* and *paitim* are polysemic and understandable through associative structures like metonymy and metaphor.

The thesis’ methodology focuses on Cognitive Semantic analysis in order to identify polysemy and how these meaning extensions emerge through conceptual associations. This thesis also uses an adapted etymological tracing for Tok Pisin (Mühlhäusler 1984a), which is used to reconstruct the historical development of *pait/paitim*, in order to assist with the explanation of the polysemy. Corpus Linguistics methods are also integrated in the form of concordance, collocations, and n-grams, which are used to find co-occurring patterns and thus authentic usage patterns in a corpus. The *Slone Corpus* (Slone 2001a; Slone 2001b) of traditional Tok Pisin folktales from 1972–1997 from the *Wantok Nuisepapa* is used and compared with dictionary data from Mihalic (1971) and Volker (2024).

Together, these approaches reveal how *pait* and *paitim* have created rich polysemy networks through usage, etymological layering, and cognitively motivated meaning extensions in Tok Pisin. While *pait* and *paitim* are associated with war and violence, through polysemy the meanings can extend into semantic domains such as taste, music, and more. Additionally, this thesis shows in what way all the extensions from both *pait* and *paitim* are connected and ultimately traced to *pait* ‘fight’. This thesis contributes to research on Tok Pisin by giving more insight into the semantics of war and violence. It also contributes to etymological studies and corpus linguistics for Tok Pisin. For Cognitive Linguistics for pidgincreoles, this thesis demonstrates the fruitfulness of this approach. Additionally, it models how lexical meaning develops, stabilizes and grows within Tok Pisin.

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The Expansion of War and Violence in Tok Pisin

1. Introduction

War and violence are not new concepts in human history. Archaeologists, historians, anthropologists and more have documented violent encounters across time and place so extensively that it seems warfare is a persistent activity in human societies. But what is not constant is the language which we use to describe war and violence. Unlike warfare itself, the vocabulary is often being changed or replaced, and undergoing semantic change. For example, in Old English, *hild* and *wig* are often used in poetry as words meaning ‘battle’, ‘fight’, and ‘war’. Their survival into Present-Day English has been reduced to almost nothing. Instead, words like *fight*, which comes from the Old English *feohtan*, and *war*, from Anglo-Norman *werre*, have persisted into Present-Day English, allowing other forms to dwindle out.

The language for war and violence also does not necessarily stay in that semantic domain. Sometimes there are shifts where words once associated with war become connected to domains that are not so warlike. In Latin, *bellum* was the primary term for war. Descendants of Latin *bellum* remain in modern Romance lexicons, even though the primary terms for ‘war’ now derive from Frankish *werru* (Italian *guerra*, French *guerre*, Spanish *guerra*, Portuguese *guerra*). These descendants have not remained restricted to the semantic domain of war. After all, *rebellion*, which was loaned into English (and appears in Italian, French, Spanish, Portuguese, and Romanian), can be a violent encounter, but it also can be a non-violent insubordination—like talking back. One could say that the term has extended beyond physical violence while still retaining a recognizable connection to that domain.

These are the kinds of issues that this honours thesis is concerned with: how words associated with war and violence develop multiple related meanings—which is called polysemy—as well as how those meanings are structured within individual lexemes. It also considers how such words are used within the language and what patterns emerge from that usage. These ideas are relatively simple to pursue in well-documented languages such as English and the Romance languages, where etymological and lexical histories are often available. But the same ease is not granted to Indigenous languages, contact languages, and any low resource language. This thesis therefore takes Tok Pisin, a pidgincreole in Papua New Guinea (PNG), as its language of focus. To investigate these issues in that context, the thesis is guided by three research questions: to what

extent is polysemy observable in the usage of war and violence terms in Tok Pisin? What motivates the semantic extensions observed in these terms? And how does etymological evidence contribute to understanding the relationships between these meanings?

Tok Pisin—which is a lingua franca spoken in the northern and western part of PNG—is not a critically under-documented language. There are dictionaries, grammars, and resources widely available, but it is a contact language that is understudied compared to languages such as those in the Indo-European family. Gaps do remain in the literature on Tok Pisin. In fact, there have been no linguistic studies of any kind on war and violence vocabulary and only a handful of studies on any kind of Cognitive Linguistics (CL). This thesis attempts to help fill that gap in the scholarship by analysing the polysemy networks of *pait* and *paitim*, with particular attention to etymology and corpus evidence. These two terms—*pait*, which is often translated as ‘fight’, and *paitim*, which is the transitive form of *pait*—were selected as the case study in order to keep the project within a manageable scope.

This study is situated within the framework of CL, which treats language as tied to general cognition. CL understands meaning as conceptual and usage-based. Meanings are not fixed by dictionary definitions or historical senses, but are instead shaped by experience, context, and use. Because of this, meaning is not singular and instead can be polysemic. A single word can have multiple meanings that are not random or unrelated but instead form a set of distinct yet connected senses. This framework is essential for analyzing how the meanings of *pait* and *paitim* are structured and related within the semantic domain of war and violence.

In order to uncover the polysemy networks, this thesis adopts a CL methodology. This involves identifying the senses within the polysemy network and examining how these senses are extended. Such extensions may be motivated by processes including metaphor, metonymy, broadening, and narrowing. Because this approach seeks to account for how related meanings are structured within a single lexical item, etymological tracing—adapted for mixed languages and specifically Tok Pisin—supports this analysis by helping to explain how these relationships may have developed. The process involves identifying all potential source languages, examining phonological, semantic, and structural blending. Then it calls for situating these developments in their historical and social contexts to account for lexical conflation, reborrowing, and change over time (Mühlhäusler 1984a: 215–217).

Corpus linguistics also plays a central role in the methodology by informing usage-based CL, which has been defined as “a bottom-up approach to language phenomena” (Desagulier and Monneret 2023: 31). This involves applying concordance tools to the Slone Corpus, which has traditional folktales first published in the *Wantok Nuisepapa* from 1972-1997 (Slone 2001a; Slone 2001b). This methodology will provide insight into how *pait* and *paitim* are used in actual Tok Pisin and whether any emergent meanings are observable. Together, these approaches allow for a historically grounded and usage-based analysis of the polysemy networks of *pait* and *paitim*.

Through its analysis of *pait* and *paitim*, this thesis explores how multiple related meanings can be organized within a single lexical network, and how such relationships can be explained through CL. In doing so, it contributes to research on Tok Pisin by providing the first and only extensive analysis of *pait* and *paitim*. Not only that, but it also fits into a larger research gap on war and violence vocabulary. Although war and violence in Papua New Guinea is a known topic in Anthropology, the vocabulary in this semantic domain has not been studied in Tok Pisin. Beyond war and violence, this thesis contributes more generally to semantic research in Tok Pisin as well as etymology. This thesis also adds to the body of literature on the application of CL on pidgincreoles. CL for pidgincreoles has been limited due to a debate sparked around what is known as the creole exceptionalism hypothesis (which will be discussed in Chapter Three). More specifically, it contributes to the even smaller body of CL research on Tok Pisin. At a broad theoretical level, this thesis supports the view that related meanings within a lexical item are not random but follow cognitively motivated patterns.

This thesis is composed of six chapters. After this introduction, which corresponds to Chapter One, Chapter Two offers a brief overview of Tok Pisin with attention given to its historical development and lexicon. This chapter aims to familiarize the reader with the language, while giving context to the multilingual environment that brought about the inception of Tok Pisin. Chapter Three constitutes the background section, which is focused on CL. This chapter will cover CL principles that are relevant to this thesis such as polysemy, metaphor, and metonymy, while also touching on some of the scholarships on CL and mixed languages, and then, more specifically, CL and Tok Pisin. Chapter Four deals with the methodology and corpus. The Methodology used in this thesis—CL analysis that is supported by Corpus Linguistics and Etymology Tracing for Tok Pisin—will be presented, as well as the dictionaries and corpus used for the analysis. Chapter Five corresponds to the analysis. This chapter presents *pait* and *paitim*, as well as their polysemic

extensions. Through the chapter, all of the extensions will be addressed and explained. Finally, Chapter Six presents the reader with the conclusion and outlook, where recommendations for future research takes place.

2. Tok Pisin

The target language for this thesis is Tok Pisin, also referred to as Neo-Melanesian Creole, Melanesian Creole, and New Guinea Pidgin. Tok Pisin is spoken in PNG and is sometimes categorized as a pidgin and sometimes a creole. As explained by Viveka Velupillai, pidgins “emerged in situations of intense contact, in which speakers of mutually unintelligible languages needed a medium for communication” (Velupillai 2015: 15) and creoles are “natural languages that arose in situations where people of diverse ethnocultural and linguistic backgrounds were brought together and formed distinct communities” (Velupillai 2015: 43). Tok Pisin could fit into either category, as the history of the language has elements of pidginization and creolization. As Velupillai explains, Tok Pisin carries “affinities with both pidgins and creoles” (Velupillai 2015: 20) and cases have been made for both labels. But this thesis is less concerned with taxonomy and for that reason it follows the definition that Tok Pisin is a pidgincreole, as it began as a pidgin and has expanded “its function and its linguistic system” (Velupillai 2015: 37).

Tok Pisin, English, and Hiri Motu are the three national languages of PNG, of which Tok Pisin is the most significant as it is called “the fastest growing language in the Pacific” (Australian National University 2026). It is a stable language from a sociolinguistic perspective (Smith & Siegel 2013) and has four to six million speakers, with the majority of that population speaking it as a second language (Kosecki 2020b: 45). Tok Pisin is involved in a complex multilingual environment. The linguistic landscape of PNG is extremely diverse with over 800 living languages and more than 50 language families as illustrated in figure 1.

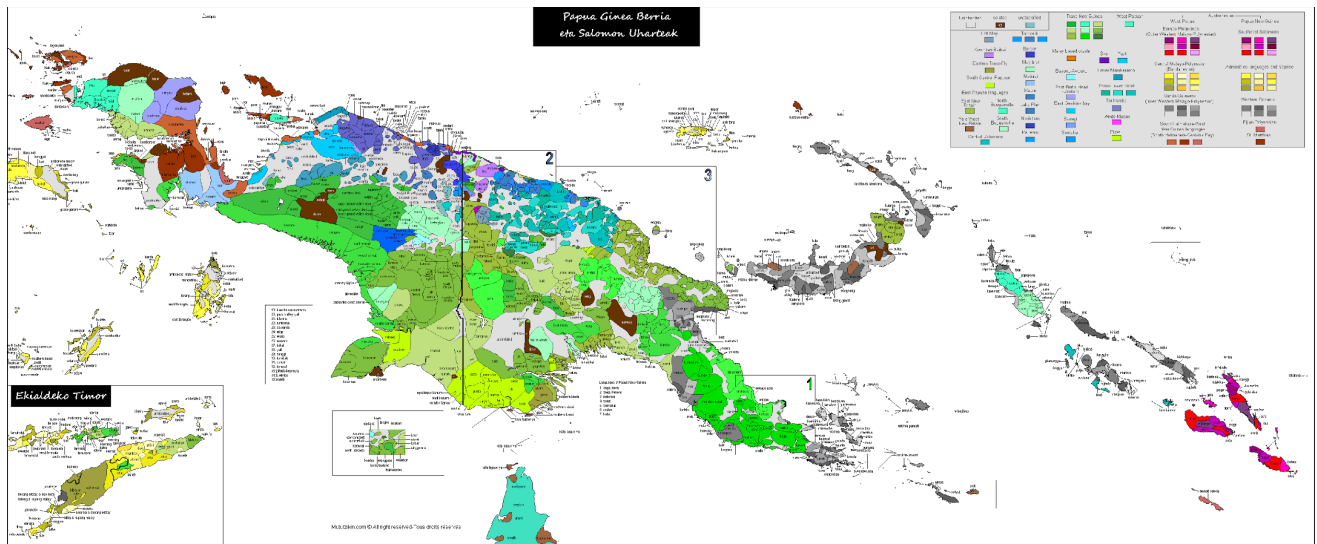


Figure 1: “Map of linguistic landscape in Papua-New Guinea, Solomon Islands, & East Timor” (Muturzikin.com 2007)

A lingua franca—which is a language that is “systematically used to enable communication between groups of people who speak different native languages” (Velupillai 2015: 6)—was needed in order to have successful intertribal communication. Tok Pisin fills this space in the Northern and Western parts of the country. Hiri Motu is a different pidgincreole and lingua franca in the Port Moresby area and Southeastern tip of the country. Tok Pisin becoming a lingua franca has come with consequences. As Kik et al. (2021) explain, Tok Pisin is a contributing factor to the generational decline of Indigenous languages in the country, as multilingual households seem to prefer to use Tok Pisin (Barth et al. 2025: 3).

In scholarship, Tok Pisin has been a relatively well studied language. Mühlhäusler (1984b) outlines the history of study from the early 20th century until 1975 and explains that there are seven areas of Tok Pisin which have a significant body of literature: early writings, pedagogical materials, descriptive linguistics work, language change and creolisation works, education debates, ethnographic and sociolinguistic studies, and finally lexicographic studies (Mühlhäusler 1984b: 33). In the last 50 years, the scholarship has only grown, with more work being conducted in the main linguistic areas: phonology (e.g. Smith 2008; Boer & Williams 2017), morphology (e.g. Snoek 2011), syntax (e.g. Sankoff & Brown 1976; Sankoff 1990; Eberl 2019), semantics and pragmatics (e.g. Mazzie 1989; Levey 2001; Kosecki 2024). Strides are also being made in areas like child acquisition (e.g. Smith 2002; Reesink 2011; Boer 2022), variation studies (e.g. Levey 2001; Boer & Williams 2017), and corpus linguistics (Feldmanis 2002; Snoek 2011; Zimmermann

2011; Stanulewicz & Radomyski 2025). While there is still room for growth, this presence in scholarship further reaffirms Tok Pisin's stability.

2.1 Historical Development

Mühlhäusler offers a detailed account of the historical development of Tok Pisin in the third chapter titled “The Socio-Historical Setting of NGP” of his handbook *Growth and Structure of the Lexicon of New Guinea Pidgin* (Mühlhäusler 1984d). For that reason, this section offers a brief summary of Mühlhäusler's work with the incorporation of recent scholarship where it is necessary. There had been contact in the South Seas and Melanesia since the sixteenth century. However, the Jargon or Pre-Colonial stage of Tok Pisin—which can be traced to the end of the eighteenth century and lasted until the 1860s—is particularly important in the language's development. During this period there was prolonged contact between Europeans and various groups in PNG and broader Melanesia for economic reasons, and this gave rise to English Jargon. Because of the trade routes and proximity to Hong Kong and Canton in China, it is plausible that the early pidgin could have had some contact with Chinese as well. In fact, it has been suggested that Tok Pisin can trace its origins to China Coast Pidgin English, instead of South Seas Pidgin English (Hancock, 1977: 378; Mufwene, 2008: 314–315 qtd in. Kosecki 2020b: 47). This English Jargon was not isolated to the New Guinea mainland, but it is instead one of several varieties of Nautical Jargons. Little else is known about English Jargon as the speakers would have been few and far between. Additionally, the link between English Jargon and Tok Pisin is indirect with less visible traces on the language we know in the 21st century (Mühlhäusler 1984d: 56–59).

During an approximately 20-year long period from the 1860s to the 1880s, there was a shift in the relationship between the Melanesians and the Europeans. It became clear the two parties were no longer on equal footing. The two events that brought about this change were the introduction of the plantation system and thus free labour. The second was the Germans becoming interested in trading in the Pacific. Plantation environments—specifically the Queensland Plantation, New Caledonian Plantation, and the Samoan Plantation—created the need for communication among workers, who were not necessarily from the same linguistic background. These plantations also put pressure on the workers to develop means of communication with the overlords. This early history of forced displacement of Melanesian people into an intensely

multilingual environment was the catalyst for pidgin languages in the plantations (Mühlhäusler 1984d: 59–60).

Even though German was often the language of the plantation rulers, it never became the basis for a lingua franca. There was also a brief period where Coastal Malay was the lingua franca, but this did not last long (Mühlhäusler 1984c: 199) because English Jargon already had historical roots in the area. In practice, the formation of Plantation Pidgin English was dominated by English vocabulary because the linguistic backgrounds of the plantation workers were so diverse that their only reliable language of communication was a form of English (Mühlhäusler 1984d: 60). Inside the plantations, the pidgin stabilized. Then, after the workers' contracts were over, many, but not all, were sent back to their home islands and communities, which triggered the outflux of the Plantation Pidgin English. When the workers returned to their communities, Tok Pisin came to be seen as a prestige language which helped solidify it in the non-plantation areas of Melanesia. Additionally, the Pidgin had gone through a first phase of creolization in the plantations. There were children born to indentured workers on the plantations, who grew up with the language (Mühlhäusler 1984d: 60–61).

After this stage, Tok Pisin had a separate development from the other related Plantation Pidgin Englishes like Bislama in Vanuatu and Pijin in the Solomon Islands. From 1880 to 1914 Tok Pisin started to acquire its own identity. This is related to three factors: first, the recruiters began to take more Samoan labourers; then the Germans declared the protectorate over the Bismarck archipelago; and finally, the connection to English for more lexical input was all but severed. As the language continued to grow and evolve, German provided some new vocabulary. However, little else is known about this early stage of Tok Pisin's development. Mühlhäusler presents some theories on what linguistic elements were contributing to the separate stabilization of the language, and this is where the scholarship begins to become contentious with a debate rooted in the finer details (Ross 1991: 362). Mühlhäusler himself draws on Salisbury's claim that Pidgin English was already present and greatly influenced by Kuanua, an Indigenous language in that area. He then explains that it is likely that the labour trade between German New Guinea and Samoa contributed greatly to the development of Tok Pisin (Mühlhäusler 1984d: 65–74).

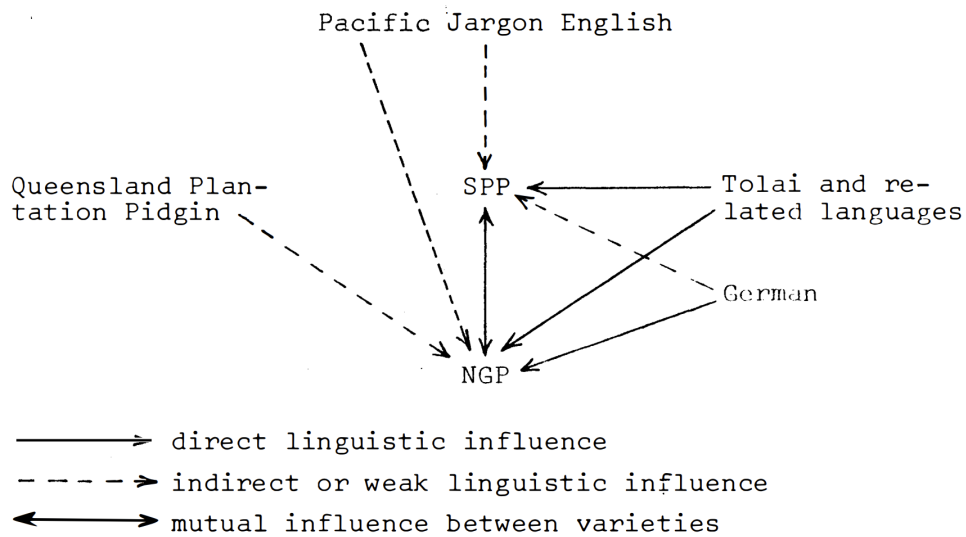


Figure 2: Linguistic Influences of Tok Pisin (Mühlhäusler 1984d: 74)

The Germans colonists also played a significant role at this time, both linguistically and culturally. They brought a central administration to German New Guinea which helped lessen intertribal warfare and promote communication between tribes, which was not possible before. Tok Pisin was used by the administration, the police, and the luluai-tultuls, who were fluent speakers of Tok Pisin and interpreters. Tok Pisin was also used in medical contexts and even courts of law, signifying an important step of expansion of the pidgin into a pidgincreole. Tok Pisin's spread was rapid and successful and the language continued to be seen as prestigious. This encouraged the people inhabiting German New Guinea to learn it and teach it to their children. However, it should be noted that when the Germans began to learn the language, unlike the English, they made little attempt to change the language to make it more like German and instead learned it as it was. This explains the more subtle influence of German on Tok Pisin (Mühlhäusler 1984d: 75–83).

After WW1, the German rule was replaced by Australian and English rule, which was less keen on Tok Pisin, and preferred “proper” English be spoken. Despite this Tok Pisin continued to be used, learned, and spread. In fact, the nativisation of the language was assisted by young boys learning Tok Pisin from returned plantation labourers in the 1920s. This helped with the stabilization of grammatically complex varieties (Mühlhäusler 1984d: 83–88). Before WW2, it is assumed that regional varieties sprung from two factors: first is geography, as the separate groups would borrow words from local dialects and let the structure of the language grow without having

contact with another group of speakers; the second factor is the mode of transmission. There were regional differences from the coast areas where Tok Pisin was used for intertribal communication and from the highlands where the Australian officers and officials communicated with the people using Kiap Pidgin, which was more significantly anglicized (Mühlhäusler 1984d: 91–93).

After the end of the world wars, Tok Pisin continued its development and solidified its spot within the culture. It was used in propaganda, workplaces, and in media. This last development was significant as Tok Pisin had been an almost exclusively oral language, so with the introduction of Tok Pisin newspapers, a spelling conventions had to be establish (Mühlhäusler 1945d: 97–103). By 1980, the language—previously referred to as New Guinea Pidgin and other names—was officially standardized under the name Tok Pisin, a translation of ‘Pidgin English’.

2.2 Lexical Composition

Because the history of Tok Pisin is rooted in language contact and multilingual environments, the lexicon of the language is an assemblage of its influential predecessors. English is the main lexifier language, meaning that Tok Pisin “derives the bulk of its lexicon” (Velupillai 2015: 6) from it. Mühlhäusler estimated that the lexicon of Tok Pisin was comprised of around 77% English (Mühlhäusler 1984a: 179). Other specialists have given estimations that are equally high, with three quarters of the lexicon being English (Ross 1992: 363). However, it should be noted an Anglicization has been observed in Tok Pisin. Zimmermann noted that in the Wantok Corpus—which is partly the same corpus as in this thesis—“firmly established indigenous words are being replaced with anglicised terms” (Zimmermann 2011: 183). This anglicization has also been noted by Romaine (1992) and later Wardhaugh (2010). Nevertheless, elements from the other input languages are still recognizable in Tok Pisin and shall be discussed in the rest of this section.

The largest substratum of Tok Pisin is the Patpatar-Minigir-Tolai language family. These are Indigenous languages spoken in the Gazelle Peninsula of East New Britain as seen in figure 3.

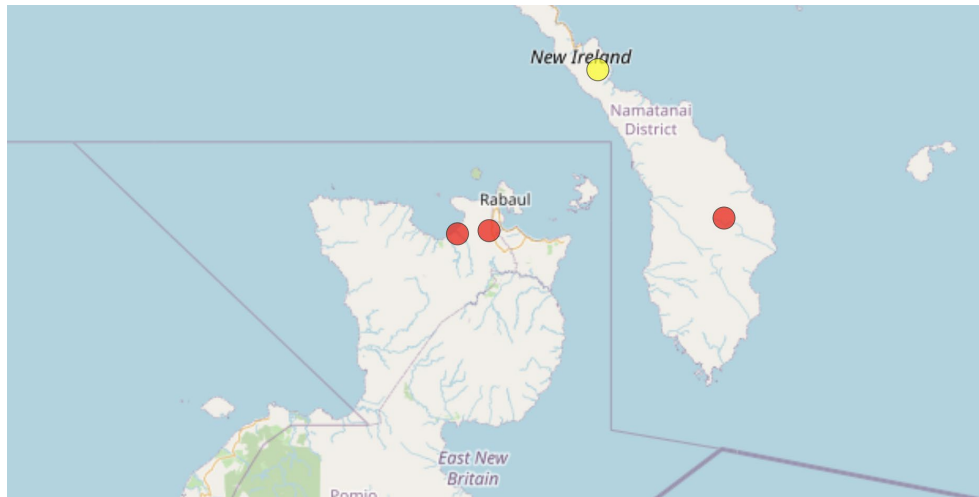


Figure 3: Patpatar-Minigir-Tolai Language Family (Hammarström et al. 2025)

The most notable language for this context is Kuanua, which is spoken by the Tolai people. It is estimated that 11% of Tok Pisin’s lexicon comes from these languages and possibly up to 17% (Kosecki 2025: 88). Other Indigenous languages like Mioko played a small role in the composition of the lexicon, but the contact between Mioko and Tok Pisin did not remain strong after the 1880s, whereas Kuanua remained in contact until at least the 1980s (Mühlhäusler 1984a: 218). Additionally, Ross analysed the Austronesian lexical items in Tok Pisin and connected terms with previously ambiguous etymologies to Indigenous languages from and outside of the Bismarck Archipelago. He found that many were related to Ramoaaina (Ross 1991: 382), a different Indigenous language from the Duke of York Islands off the coast of the Gazelle Peninsula. This indicates that Tok Pisin could have a larger contribution from Indigenous languages than previously thought.

German is another significant adstrate because of the prolonged contact with the German administration and language. The borrowings from German were not just brought about by the German colonization, but also because the majority of the missionaries were German up until WW2 (Mühlhäusler 1984a: 200). In 1985, around 4% of the lexicon was of German origin, but this has begun to shift with the anglicization of Tok Pisin. Kosecki notes that many German words are being replaced with English terms (Kosecki 2020b: 45) and Engelberg & Stolberg estimate less than 1% of the lexicon is still of German origin, based on a more recent lexicographic study from Garnier’s 2006 dictionary of French and Tok Pisin (Engelberg & Stolberg 2017: 33). The vocabulary from German mostly consisted of specific semantic domains such as building and

carpentry terms, classroom terms, domestic context, missionary and doctrinal terms, police force terms, commands and abuse, nautical terms, and finally animal terms (Mühlhäusler 1984a: 201–204). Of course, the influence of German is larger than these semantic domains. In fact, in 2017 Engelberg, Möhrs, and Stolberg conducted thorough research into the etymology of German origin terms in Tok Pisin and launched “The internet dictionary Wortschatz deutschen Ursprungs im Tok Pisin (‘Words of German Origin in Tok Pisin’)” (Engelberg & Stolberg 2017: 52). This resource has the most up to date information on the German influence in Tok Pisin in the 21st century,

Although the missionaries were often German, the language of the Catholic church is Latin and thus Tok Pisin was affected¹. Just as with German though, many of the Latin terms have since been replaced with English equivalents. Nevertheless, all the Latin origin terms are related to worship and the Christian church and rooted in the early missionary work in PNG. As of 1970, it is estimated that 3% of the lexicon is of Latin origin (Laycock 1970 cited in Mühlhäusler 1984a: 179), but it is likely that this percentage has decreased in the last 50 years.

While some of the substratum language’s influence on Tok Pisin are still under explored, Roosman did a comprehensive analysis of Malay elements in the Tok Pisin lexicon. He notes that although there are limited historical records detailing the nature of the contact between Malaysian people and the Melanesians, based on the 1% of words that can be linked to Malay, the contact would have been minimal (Roosman 1975: 229). Roosman notes that because of semantic change and phonological adjustment, many words are “not readily detectable as a Melanesian pidginisation of a Malay word” (Roosman 1975: 231). The majority of the words of Malay origin are plant names, but Malay terms have also been found in domains such as utensils and social functions (Roosman 1975: 232). It should be noted that Roosman called attention to the anglicization as being a threat to the Malay vocabulary (Roosman 1975: 232). There has not been an updated study on how many Malay terms have been retained since this study was conducted over 50 years ago.

The major substrata have been laid out. However, there are a few languages which potentially have a small influence on Tok Pisin. Portuguese and Spanish were in contact with Jargon English and in fact traces have been left in Tok Pisin. The most notable example is the verb

¹ There were many denominations of missionaries. Zimmerman notes the Lutheran and Methodist (2011: 19). There were also the Silesians and the Society of the Divine Word, which is the group that sponsored the primary dictionary used in this thesis. For a detailed account of the history of missionary work in PNG, the Embassy of PNG to the Americas, Washington, DC, has a resource available.

save ‘to know’, which comes from Portuguese *sabe*, and *kalabus* ‘prison’, which comes from Spanish *calabozo*. Mühlhäusler also draws attention to Samoan and Samoan Plantation Pidgin, Pacific Pidgin English, Hiri Motu, Fijian, Chinese and Chinese Pidgin English, and African languages (Mühlhäusler 1984a: 199–211). While Mühlhäusler acknowledges that the influence is minimal, he asserts that it is vital to understand the full linguistic background when one is concerned with etymologies.

2.3 War and Violence Vocabulary

Warfare has remained a popular subject for Anthropologists working in PNG. In fact, Berndt defines warfare as “a major characteristic of New Guinea-Papuan societies” (Berndt 1964: 183) and 50 years later Roscoe explains that there is a “resurgence of war” akin to the style of war during Pre-Colonial times (Roscoe 2014: 328). In the Highlands, there are three main types of war defined by Roscoe, which are the small-scale ambush, the large-scale raid, and the open battle (Roscoe 2014: 328). The highland tribes were not always at war, and instead war was a periodic or cyclical activity. But when there was war, open battle was the preferred type of war. This kind of war involved throwing projectiles and occasionally closing in to fight at close quarters. There would be multiple battles involved in a war, and typically the whole event would last several days, but it could also be months long. Although in principle there would be a winner—with the losing side’s village being burned and the victims massacred—Roscoe notes that typically war ended when the two sides “had enough and concluded a peace” (Roscoe 2014: 328). In modern days, war has returned to the highlands in much of the same ways but this time with modern weapons and styles of fighting. In the Lowlands, war has not seen quite the same resurgence as in the highlands, likely due to physical violence being illegalized as a crime instead of labelled as warfare (Roscoe 2014: 334). Tok Pisin is expected to have vocabulary that can express war and violence because of the historical and modern presence it in the cultures of PNG.

In Tok Pisin there are multiple different lexemes that can be used for war. The most similar term to English is *woa* ‘war’, which is a loanword from English *war*. This term often uses the specific referent of the world wars. The term *pait* is the most common word to mean ‘fight’. However, it is not limited to just ‘fight’. It can also mean ‘war’, ‘battle’, ‘fight’, ‘conflict’, and most violent incidents. *Paitim* can mean ‘to beat’, ‘to strike’, or ‘to hit’. *Katim* can mean ‘to cut’ or ‘to maim with a weapon’. *Sutim* can mean ‘to shoot’, ‘to forcefully put something inside

someone else’, ‘to poke’, and ‘to prod’ (Mihalic 1971). Outside of dictionary entries and brief notes in larger etymology studies (e.g. Roosmaan 1975; Mühlhäusler 1984d), there has not been an exploration of the domain of war and violence vocabulary in Tok Pisin, something which this thesis aims to rectify.

3. Theoretical Background

The goal of this background section is to familiarize the reader with CL as a general field, but also the complexities of CL in relation to creoles.

3.1 Cognitive Linguistics

Since the 1970s, CL has been growing and gaining more of a prominent place in Linguistic scholarship. CL is part of the functionalist tradition and emphasizes “the semiological function of language” as well as “conceptualization in social interaction” (Langacker 2010: 31–32). However, CL differs from other branches of formalist linguistics in the sense that it is a family of approaches, or a set of tools, that are united by certain key axioms. Croft gives a condensed list of three axioms that cover the basics of Cognitive Linguistics: (i) language is not an autonomous cognitive faculty; (ii) grammar is conceptualization and (iii) knowledge of language emerges from language use (Croft & Cruse 2004: 1). Taken together, they provide the theoretical framework for the approach adopted in this thesis.

The first assumption—that language is not an autonomous cognitive faculty—means that language is not “special-purpose innate” (Croft & Cruse 2004: 2) and has the same conceptual structures as other cognitive processes that are unrelated to language. CL asserts that language is not a self-contained mental system. Instead, it abides by the same rules and organization as general cognitive processes from everyday life. This is aligned with the idea of domain-general cognition, which is a concept that understands language and perception as being motivated by cognitive faculties such as attention, construal, and more. Ultimately, this puts CL in direct contrast with the Modularity hypothesis. Modularity, inspired by Fodor (1983) and Pylyshyn (1984), understands that input systems such as language and perception are modular, while central systems are not (Carruthers 2006). This is important in this thesis because the phenomena that are studied here rely on cross-domain associations of experience that modular separation makes difficult to explain. Speakers use relations learned from experience when implying similarities—metaphor—and reference one part while meaning another—metonymy. Because of this ability, it strongly suggests

that faculties used in perception, specifically categorization, are used in language. Thus, it indicates that the conceptual operations used outside language are also operative in linguistic meaning.

Because CL assumes that language is not an encapsulated module, then grammar cannot be a self-contained formal system. This leads into the second axiom, which is that “grammar is conceptualization” (Croft & Cruse 2004: 1). This means that grammar reflects conceptualization and does not use formal and generative approaches to syntax from previous generations. The idea that grammar is conceptualization indicates that grammar is not just rules to arrange elements of the language, but a way to organize and present meaning. Langacker explains that grammar is a “symbolic phenomenon” (Langacker 1987: 32) that has patterns for organizing conceptual structuring. Additionally, he explains that the components of grammar—lexicon, morphology, and syntax—are a continuum made up of “assemblies of symbolic structures” (Langacker 1987: 32). Langacker argues that each symbolic assembly is made up of just two poles, phonology (form) and semantics (meaning). The semantic structure is “a conceptual structure that functions as the semantic pole of a linguistic expression. Hence semantic structures are regarded as conceptualizations shaped for symbolic purposes according to the dictates of linguistic convention” (Langacker 1987: 98). This means that semantics are inherently conceptual and not separable from broader conceptual knowledge, and also that the conceptualizations are packaged in conventional ways—which are presented as grammar—depending on the language.

A symbolic assembly can also be stretched to extend the linguistic conventions. Langacker calls this “partial sanction” or “extension”. This happens when a speaker’s intended conceptualization is not fully covered by existing form–meaning pairings. The existing convention only partially sanctions the usage-event but does not fully encapsulate the meaning. This leads to a strain between the two meanings in terms of semantic coverage as seen in Figure 4.

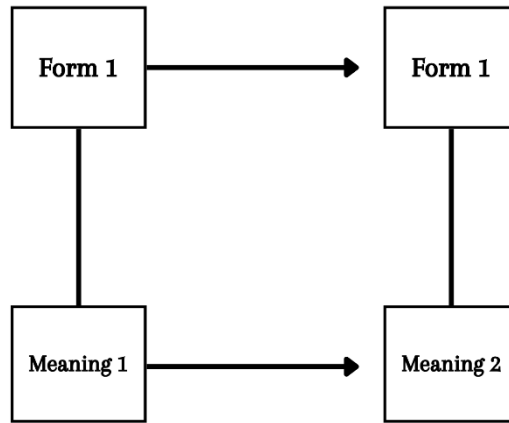


Figure 4: Stretched Symbolic Assembly (Polysemy)

However, “the two structures are similar enough that the target structure is easily seen as an extension from the sanctioning unit” (Langacker 1987: 69). An example of this can be found in the term *attack*. There is *attack_1* ‘physically assault’ and then *attack_2* ‘degrade with words’. *Attack_1* only partially sanctions the use of *attack_2*, since the physical element of *attack_1* is lost. However, the speakers are capable of understanding the extension—which is a polysemy—because there is a metaphorical link between the two meanings.

But what happens when extensions are not just emerging sparsely but being used repeatedly? This leads into the third axiom, which is that “knowledge of language emerges from language use” (Croft & Cruse 2004: 1). The third axiom means that linguistic structure is shaped by “utterances on specific occasions of use” (Croft & Cruse 2004: 4). Repeated patterns of use then become conventionalized, which results in a stable polysemy that can be tracked in corpus evidence across contexts. Although this idea may seem simple, it comes from a rich background, as it responds to approaches of linguistics that tend to overlook idiosyncratic and anomalous patterns when they are not highly generalizable and thus innate (Croft & Cruse 2004: 4). Instead, CL embraces all variation as theoretically informative, as it reveals shifts and negotiations in meaning.

Langacker frames this third idea of language knowledge coming from language use by asserting that the act of communication is a problem where a solution needs to be found. The found solutions can then prompt language change. This can be exemplified again with the term *attack_1* and *attack_2*. The user who wants to construe that a verbal act is aggressive might choose *attack* in the sentence “he attacks the thesis” to evoke that sentiment, instead of *disparage* or *criticize*.

But *attack_1* cannot cover the extended meaning of *attack_2* without a partial sanction. Thus, the user is motivated to solve this act of communication with the partial sanction. This usage-event is then understood and soaked up by the receiver, who potentially adds the partial sanction into their own linguistic system. *Attack_2* is also able to be mutually understood not just because of the meaning of *attack_1* alone, but also because both parties—speaker and receiver—know what attacking entails based on shared encyclopedic knowledge. Once the partial sanction is repeated successfully over time, the extension can stabilize and become a convention in the polysemic structure, and so create language change. Langacker summarizes this process as a primary site of language change by saying, “[a]pparent now is the reason for referring to the interface between convention and usage as the source of language change and the crucible of linguistic structure: particular usages, [...] often acquire both unit status and some measure of conventionality” (Langacker 1987: 70). These core principles of CL provide the broader theoretical background for this thesis. In particular, the view that meaning is conceptual, usage-based, and open to extension is essential for understanding polysemy, which has already been hinted at. The following sections therefore examine polysemy in greater detail.

3.1.1 Polysemy

Polysemy is a key concept in CL as it can be found at many levels of language, from morphology to semantics. However, this thesis is concerned with cognitive semantics, which is the meaning-focused branch of CL, and thus concerned with polysemy at the semantic/lexical level. The study of polysemy emerged from the observation that words occasionally have multiple meanings that relate to one another (Lewandowska-Tomaszyk 2007: 139). This can be found in examples like *attack_1* ‘physically assault’, *attack_2* ‘degrade with words’, *attack_3* ‘to quickly finish something’, and more. The same form (signifier) has three different senses that are related through similarity (metaphor) or reference one part while meaning another (metonymy).

CL has seen the renewal of studies of polysemy, even though the concept of polysemy is far older than CL. Polysemy gained traction after being relegated to the sidelines during structuralism, which focused on other areas of semantics, and Generativism, which viewed polysemic structures as “identical (homonymic) words with partly overlapping feature matrices” (Lewandowska-Tomaszyk 2007: 139). In CL, studies on polysemy are focused on understanding how polysemy is a form of categorization (Lewandowska-Tomaszyk 2007: 140). This has larger

implications, since polysemy patterns can be helpful for understanding generalisations and fundamental commonalities across language. Additionally, this understanding of polysemy as categorization involves “recognizing the importance of context for meaning/senses”, which, as Gries explains, is related to the fuzzy boundaries between linguistic and encyclopedic knowledge (Gries 2019: 24). Polysemy is also key for the first axiom of cognitive linguistics: as Kovács explains, “linguistic polysemy patterns reflect, and therefore reveal, systematic differences and patterns in the way linguistic units are organised and structured in the mind” (Kovács 2011: 16).

For understanding polysemy’s connection to categorization, a word is viewed as a category that has all the different senses of the word inside of it. Then the senses are all related to each other through “general cognitive principles such as metaphor, metonymy, generalization, specification and image schema transformations” (Kovács 2011: 14). By understanding polysemy in this way, homonymy—which is when two words sounds the same and are spelled the same but have distinctly unrelated meanings—are distinguishable from polysemy, as they do not share the same “systematic relationship of meaning” (Kovács 2011: 14). Polysemy in CL also has a prototypical sense, which is more central and often more literal. The other senses are peripheral and typically include the figuratively derived senses. The two main ways to derive this figurative sense is through the associative structures called metonymy and metaphor, which will be discussed in the following two sections.

3.1.2 Metonymy

Metonymy has expanded to become one of the major conceptualization tools in CL, after starting as a major figure of speech in classical rhetoric (Panther & Thornburg 2007: 237). Lakoff recognized that metonymy is “one of the basic characteristics of cognition” (Lakoff 1987: 77), but according to Ruiz de Mendoza Ibáñez, metonymy is understudied compared to metaphor (2003: 1). Metonymic principles are used to create new senses of words and metonymy in general effects semantic change and grammaticalization (Panther & Thornburg 2007: 236).

Unlike polysemy, metonymy has many varied definitions on a common theme, which is domain contiguity. Lakoff and Johnson explain that metonymy is a “referential shift phenomenon within one cognitive domain” (Panther & Thornburg 2007: 238). Croft does not highlight the idea of a referential shift and instead argues that metonymy occurs within one domain matrix, but employs domain highlighting, where a secondary domain is made primary through the metonymy

(Panther & Thornburg 2007: 238-239). Radden and Kövecses claim that metonymy involves one “conceptual entity [...] that] provides mental access to another conceptual entity [...], within the same cognitive model” (Panther & Thornburg 2007: 239).

While all of these definitions are useful, this thesis is using the definition of metonymy provided by Ruiz de Mendoza Ibáñez. It encapsulates the essence of metonymy in a clear and concise way, while also distinguishing patterns of metonymic operation. Ruiz de Mendoza Ibáñez rejects the “traditional idea of mappings where a subdomain stands for another subdomain within the same domain” (Ruiz de Mendoza Ibáñez 2003: 1). However, he retains the definition that metonymies only operate within one domain and revises the previous view that metonymies must be referential by explaining that they have a “strong tendency [...] to be used referentially” (Ruiz de Mendoza Ibáñez 2003: 1), i.e. without referentiality being absolutely necessary. There are two types, as illustrated in figure 5, in Ruiz de Mendoza Ibáñez’s typology of metonymies.

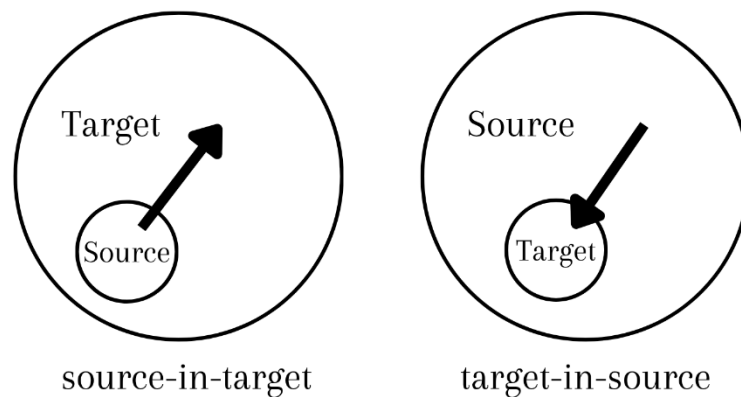


Figure 5: Metonymy

The first type of metonymy is “source-in-target” (Panther & Thornburg 2007: 239). An example of this would be the phrase *We need boots on the ground*. The boots are the source, and the target is the soldiers who are wearing the boots. The boots are a part of the soldiers, making this metonymy source-in-target. Ruiz de Mendoza Ibáñez is able to link this type of metonymy to cases where there is “the function of developing a conceptual domain for full interpretation” (Ruiz de Mendoza Ibáñez 2003: 22). The second type of metonymy is “target-in-source” (Panther & Thornburg 2007: 239). An example of this type of metonymy could be the phrase *Ottawa did not declare war*. The Canadian government is the target, and it is inside the source of Ottawa, which is where parliament is located. This type of metonymy “may only be metonymies if the putative

target is a secondary or non-central domain which requires highlighting” (Ruiz de Mendoza Ibáñez 2003: 22).

3.1.3 Metaphor

Metaphors can be understood as “conceptual tools for structuring, restructuring and even creating reality” (Kövecses 2016: 13). This has come from centuries of scholarship. However, Lakoff and Johnson’s seminal study *Metaphors We Live By* (1980), led to a surge in metaphor studies in CL (Kövecses 2016: 13). This book can be considered the beginning of Conceptual Metaphor Theory. Lakoff & Johnson argue that metaphors are not just poetic devices. They are fundamental to everyday life because the human thought process and conceptual system are metaphorical (Lakoff & Johnson 1980: 3-5). This means that “metaphor resides not only in language but also in thought” (Kövecses 2016: 16) and that metaphors are thus conceptual in nature. With the examples ARGUMENT IS WAR, they explain that in English, the concept of arguing is shaped by the metaphor of war, not just talked about it in terms of war. These types of metaphors structure “what we do and how we understand what we are doing” (Lakoff & Johnson 1980: 5).

Since the release of *Metaphors We Live By*, Conceptual Metaphor Theory has been “confirmed, added to and also modified” (Kövecses 2016: 13). What remains true is that not all metaphors in discourse are conceptual metaphors, and it is often found that those in real discourse are “less pervasive” (Kövecses 2016: 14). A conceptual metaphor, according to Kövecses, is “a systematic set of correspondences between two domains of experience” (Kövecses 2016: 14). Lakoff and Johnson distinguish three types of conceptual metaphors: “Structural Metaphor”, which involves a more abstract concept being metaphorically structured in the terms of another well defined one (Lakoff & Johnson 1980: 15); “Orientational Metaphors”, which organize a system of concepts with respect to another and give spatial orientation (Lakoff & Johnson 1980: 15); and “ontological metaphors” which treat ideas or experiences as physical objects or entities (Lakoff & Johnson 1980: 25).

Where metonymies work across one domain, metaphors must have two distinct conceptual domains, where the source domain is mapped onto a target domain to illustrate the correspondence (Kövecses 2016: 14), as seen in Figure 6. For the example ANGER IS FIRE, the sentence *The incident set the people ablaze with anger* (Kövecses 2016: 14), can be understood by correspondences

like “causing the fire → causing the anger” and “the thing on fire → the angry person” (Kövecses 2016: 14).

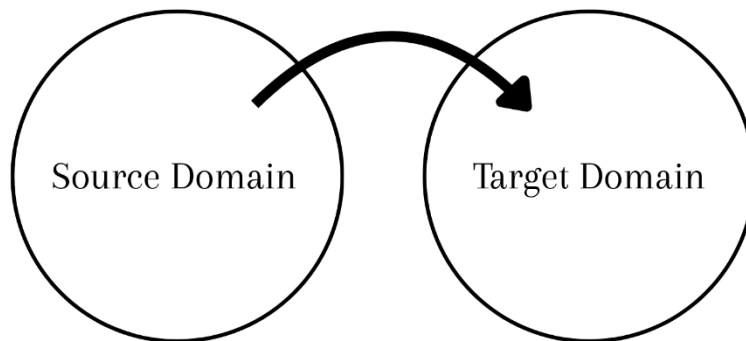


Figure 6: Metaphor

Taken together, polysemy, metonymy, and metaphor form the main conceptual tools used in this thesis to analyze semantic structure. However, before applying these tools to Tok Pisin, it is necessary to address a broader theoretical issue: the place of contact languages within CL.

3.2 Creoles and Cognitive Linguistics

There has been an increasing adoption of cognitive linguistics and cognitive semantics for pidgins, creoles, and mixed languages in recent years. The previous tendency to not apply CL may reflect disciplinary history, but it is also because of the longstanding debate over “creole exceptionalism”. Kosecki (2024) explains that this view portrays creoles as separate linguistic phylum with a fundamentally “primitive” configuration. This debate stems from the colonial period but became revisited in the early 2000s, especially through critiques made by DeGraff. The Eurocentric view of creoles exceptionalism has been repeatedly challenged over the course of the 21st century, by DeGraff (2003, 2005a, 2005b), Meakins (2022), and Kosecki (2024). Creole exceptionalism has seen no rest for the past 30 years. As Meakins describes, it is a “highly charged debate [that] has been characterized by some as a clash between objectivity and ideology” (2022: 190). Creole exceptionalism directly conflicts with a CL approach: the claim that creoles “have lexicons of reduced conceptual and expressive complexity” (Kosecki 2024: 213) and relatively transparent semantics runs counter to CL’s assumption that meaning is richly structured by conceptual processes (Kosecki 2024: 213). This thesis opposes creole exceptionalism and assumes that creoles have the “same psycholinguistic processes” (Kosecki 2024: 216) and acquisition patterns as non-contact languages (Kosecki 2024: 216). Thus, they are fully capable of having CL applied to them.

Although the body of literature that involves contact languages and CL is not as extensive as CL's reach into other languages like English, there have been some significant studies. Corum (2016) is one of the major works in this area. That project is an effort to display the usefulness of cognitive semantics for creoles and focuses on Afro-Caribbean English-lexifier creoles. The main focus of the study was to show how metaphor, metonymy, cognitive grammar, and conceptual blending, can be applied and beneficial to creole studies. Kosecki, who is a specialist in CL for pidgincreoles has studied body part terminology through CL for Nigerian Pidgin, which is one of the largest dialects of West African Pidgin. (Kosecki 2024: 231)

3.2.1 Tok Pisin and Cognitive Linguistics

Tok Pisin specifically is in CL scholarship. Singh's (2022) comparative cognitive semantic study of Melanesian pidgins, one of which is Tok Pisin, suggests that there is an underlying "oceanic cognitive schema" (Singh 2022: 11) that is common among Austronesian cultures. He found that across the three pidgincreoles, the relationship with nature is not a metaphorical one but a concrete one, where there is a literal categorization of humans being cognitively understood as an actual part of nature. Kosecki (2025), then picks up this work and focuses specifically on Tok Pisin and the oceanic cognitive schema with more data. He finds that there is a systematic tendency to conceptualize humans as embedded within the environmental world, a worldview that is encoded and reinforced through recurring linguistic expressions in Tok Pisin (Kosecki 2025: 52). Outside of these CL papers that are mixed with ecolinguistics, there has been work done for Tok Pisin and CL. Snoek (2007) focuses on the modelling of polysemic structures in Tok Pisin and shows that there are metonymically motivated lexical patterns. Most other work is then done by Kosecki, who has written about conceptual construal (2020b), lexical innovations, and metonymy (2020a; 2023).

4. Methodology

Although the main goal of this thesis is to examine the polysemic extensions of *pait* and *paitim*, there is more than just cognitive semantic analysis as a methodology at work. In fact, there are layers to this methodology that incorporate etymology tracing for Tok Pisin and Corpus Linguistics. Together, this methodology produces a comprehensive analysis of the data. This chapter will provide all the aspects of this methodology, as well as a description of the corpus and data set.

4.1 Cognitive Semantic Analysis

This thesis is concerned with polysemy, metonymy, and metaphor, but how does one identify these phenomena? This section outlines the methodology used for the identification of these three CL events.

4.1.1 Polysemy Identification

Polysemy can be identified in many ways. A common approach is to use dictionary entries. This is a technique employed by this thesis, where dictionary data is used to provide an initial indication of polysemy. The dictionaries used in this study are discussed in more detail in Section 4.4. Another and possibly more accurate way to identify polysemy is through actual language use, which can be identified in a corpus. The details of the corpus will be discussed in Section 4.4.

Once the data is secured—through dictionaries, corpus evidence, or in this case, both—there are several tests that can identify polysemy. Traditionally, there is the etymology test because the difference between a polysemy and a homonymy is history, with polysemy sharing one etymology and homonymy developing from different roots (Lewandowska-Tomaszcyk 2007: 141–142). However, there are cases where “originally homonymic forms may be reanalyzed as being conceptually related” (Lewandowska-Tomaszcyk 2007: 142). This can occur when the two meanings happen to be close enough that the speakers can establish a conceptual connection. An example of this could be *ear* ‘plant part surrounding the corn’ and *ear* ‘body part’. They are etymologically unrelated but synchronically reanalyzed to be polysemic because of “their identical symbolization” (Langacker qtd. in Lewandowska-Tomaszcyk 2007: 142).

In the 1960s and 1970s there was the introduction of more tests, but as Lewandowska-Tomaszcyk explains, none of the tests “are without problems” (Lewandowska-Tomaszcyk 2007: 143). First there is “The Logical Test” by Quine (Lewandowska-Tomaszcyk 2007: 141). This technique involves constructing a phrase in which a potentially polysemic word must be applied to the same referent. If the word is polysemic, then each instance of it will activate a different meaning, making it both true and false. An example of this would be the phrase *The camp was occupied but not occupied*. *The camp* is the referent with *occupied* being the potentially polysemic word which must be read in two different ways. Once meaning ‘taken over by enemy forces’ and once as ‘inhabited by people’. Both meanings are true and false in this phrase. Second there is “The Linguistic Ambiguity Test” from Zwicky and Sadock, then later revisited by Cruse

(Lewandowska-Tomaszcyk 2007: 142). The goal of this test is to formulate a phrase where the potentially polysemic word is zeugmatic, meaning that its use applies to multiple words but with different senses for each. An example is *the milk expired and so did he*. *Expired* is zeugmatic and governs both *the milk* and the person. *Expired* has to be read as ‘become rotten’ and ‘died’, making it polysemic. Third there is “The Definition Test”, which comes from Aristotle (Lewandowska-Tomaszcyk 2007: 143). This methodology is less of a test, because it states that “if more than a single definition is needed to account for its meaning” (Lewandowska-Tomaszcyk 2007: 143), then the word is polysemic. However, all three of these tests contradict the definition of polysemy, as they stop before identifying if the meanings are actually related and instead focus on identifying if there are multiple meanings at all. While all of these tests can be useful for identifying polysemy, the methodology adopted in this thesis combines elements of the definitional test and the etymological test with a CL approach, in order to address these limitations. Specifically, the analysis proceeds as follows:

- (1) Identify multiple definitions of the term with dictionary and corpus data.
- (2) Examine the etymology, while also accounting for the possibility of synchronic reanalysis. The methodology for etymological tracing will be discussed in Section 4.3.
- (3) Analyze the relationships between meanings using CL. If a conceptual link can be established through processes such as metaphor, metonymy, or semantic extension, the senses are treated as polysemic.

4.1.2 Metaphor and Metonymy Identification

Metonymies and metaphors are vital in this study as they are key to differentiating polysemy and homonymy. Steen gives a flexible methodology for identifying metaphors, but it has been adapted in this thesis in order to account for metonymy identification as well. Steen (2016) explains that there are two main types of metaphor identification, deductive and inductive. He stresses the importance of establishing the theoretical assumptions of metaphor before any identification attempts can be made, as one cannot identify a metaphor without being clear what counts (Steen 2016: 76), which was done in Section 3.1.3. Deductive Metaphor Identification Procedure (DMIP) involves the prior assumption that there is “a conventionalized cross-domain mapping in thought” (Steen 2016: 78). Then the researcher examines the language to find the expressions. To search effectively, the first step is to compose an *a priori* list, which should consist of lexical items that

are related to the source domain. Then the list should be examined for how the items are used for the target domain. Steen notes that this methodology can become problematic and offers up a second deductive technique. Instead of composing an *a priori* list, the researcher should examine expressions on a case-by-case basis. The Inductive Metaphor Identification Procedure (IMIP) works much the same as the second deductive methodology but does not assume the “existence of particular cross-domain mapping” (Steen 2016: 78). Because of this, each expression is tested for metaphorical expressions.

This thesis uses IMIP and therefore assumes that there are no associative structures. Metaphors and metonymies are identified through the analysis of the data. In order to uncover the metaphors or metonymies, there are three main steps:

- (1) “Read the entire text-discourse to establish a general understanding of the meaning” (Steen 2016: 79).
- (2) “Determine the lexical units in the text-discourse” (Steen 2016: 79). Phrasal verbs, polywords, and dictionary defined compounds count as one lexical unit, and idioms and novel compounds count as separate units (Steen 2016: 80).
- (3)
 - a. Consider the contextual meaning of each lexical unit.
 - b. Consider “if it has a more basic contemporary meaning in other contexts than the one in the given context” (Steen 2016: 79).
 - c. “Decide whether the contextual meaning contrasts with the basic meaning but can be understood in comparison with it” (Steen 2016: 79).

This methodology can be expanded to incorporate metonymy identification. Therefore, this thesis has added an additional step in order to distinguish between the two associative structures:

- (4) Determine whether the relationship involved is based on cross-domain comparison or on contiguity within the same conceptual domain.

4.2 Etymology Tracing for Tok Pisin

As previously established, historical information and etymology of words is relevant for identifying polysemy. However, the etymologies of words in Tok Pisin, and specifically *pait* and *paitim* are not readily available, and so a methodology involving etymology tracing is needed.

Etymology is concerned with the historical development of words. It can lead to the reconstruction of previous forms of a word and an understanding of how words spread between and within languages. Etymology belongs to a broader field of historical linguistics (Durkin 2009: 2). The key distinction from other branches of historical linguistics is that etymology incorporates applications from different linguistic levels—phonology, morphology, syntax, semantics—in order to create a comprehensive lexical history for each word (Durkin 2009: 2).

Etymology is often associated with historical reconstruction, and lexical studies on language change. Durkin notes that etymology is an “essential tool” (2009: 22) with broader implications in the study of history and semantic development (Durkins 2009: 25). The methodology for etymology tracing is language dependent (Durkins 2009: 24). Durkins explains that “comparative reconstruction”—which he describes as the backbone of etymology research (Durkins 2009: 24)—and internal reconstruction are the two main methodologies used. Comparative reconstruction is the process of comparing similarities and systematic differences in related language with the goal of reconstructing the common ancestor of the word. “Internal reconstruction” is more difficult and less reliable than comparative reconstruction according to Durkins (2009: 24). This methodology involves comparing irregularities with only the data from the language of study.

For this thesis, neither comparative nor internal reconstruction is a good fit for etymology tracing in Tok Pisin. This is because reconstruction is not the goal of this thesis. Instead, etymology is used as a way of clarifying the semantic relationships between potentially polysemic senses. For this purpose, the philological understanding of etymology is more useful than the strictly reconstructive one. In philology—which is the reconstruction of the meanings of historical texts—etymology “[seeks] to identify the original sense of each word and separate it from derivative meanings” (Momma 2013: 2). Momma contrasts this with the philological method of Historical Principles, which works in the opposite direction by accounting for polysemy in order to “recover the memory of words from previous generations” (Momma 2013: 2). In this sense, etymology and polysemy are “two sides of the same coin” (Momma 2013: 2). One technique traces meaning back toward earlier senses (etymology), while the other explains how multiple related senses develop and coexist (polysemy). This understanding is especially useful for the present study, where etymology is not an end in itself but a tool for understanding the structure of polysemy.

The qualitative etymology tracing that Mühlhäusler used in 1984a—which is the most recent model and specifically for Tok Pisin—is the best fit for this study. He is not the first specialist to conduct etymology-tracing in this way, as Wood first and then Edwards used very similar techniques (Mühlhäusler 1984a: 177). Mühlhäusler argues that in Tok Pisin and possibly other pidgincreoles, etymologies are synchronically relevant (Mühlhäusler 1984a: 188–189). This is a contradiction against the “etymology fallacy,” which is the mistaken assumption that “the meaning of words can be determined by investigating their origins” (Lyon qtd. in Mühlhäusler 1984a: 189). Mühlhäusler suggests that this is not necessarily a fallacy in Tok Pisin, because the development of vocabulary and meaning is not linear or continuous (Mühlhäusler 1984a: 188–189). It is shaped by processes such as reborrowing, semantic and phonological restructuring, and the prestige pressure of English (Mühlhäusler 1984a: 180–190). Therefore, etymology in Tok Pisin can also help explain present-day usage meaning and polysemic patterns.

The main challenge with etymology tracing for Tok Pisin is determining the degree of mixture within a single lexeme. To assess this, it is important to consider the time in which the word might have entered the language, as well as relevant sociohistorical context. These factors may provide clues about etymology in cases where direct evidence is limited, but they are also important because lexical items may have been shaped by partial transmission and reborrowing (Mühlhäusler 1984a: 180). The possibility that a single word may have multiple origins must therefore be taken seriously. Mühlhäusler warns that many words have syncretisms and are amalgamations of phonological, syntactic, and semantic elements from multiple source languages. He also notes that there are lexical confluences (Mühlhäusler 1984a: 181–182). Because of this uncertainty, the identification of source languages cannot usually be treated as definitive, but only as a set of possibilities. Without additional evidence, this is often the furthest etymological analysis can go. It is therefore necessary to consider all plausible source languages, as well as the time and place of contact. Finally, Mühlhäusler emphasizes the importance of motivating the phonological pathways (Mühlhäusler 1984a: 186–187) and applying a conservative lexicographic rule for complex words (Mühlhäusler 1984a: 188). This latter recommendation is not applicable to this thesis, as *pait* and *paitim* are not phonologically complex.

To summarize Mühlhäusler’s methodology, the key principle to keep in mind is that etymology tracing for Tok Pisin is much more complex than for languages that are not of mixed origins. A concise list of steps is as follows:

- (1) Identify all possible source languages, while taking into consideration the time and sociohistory of the borrowing, and find the most likely candidates.
- (2) Be open to multiple source languages as that is very common in Tok Pisin and instead focus on understanding how the different parent languages contribute to the Tok Pisin word.
- (3) Motivate the changes phonologically and pay attention to the actual use of the words, not just dictionary definitions.

4.3 Corpus Linguistics

Corpus Linguistics is a broad approach to textual data with many applications encompassed within the methodologies. It uses examples of language-use in the form of a corpus, or a body of text, to study language empirically. Specifically for considering its application for polysemy, there are many different ways corpus linguistics can be insightful. Gries explains that a corpus can be used to generate examples—but that researchers should be careful not to “cherry-pick”. A step further from this is to “annotate [the data] for various characteristics” (Gries 2019: 30) and use statistics in the analysis. For this thesis, a combination of example generation, although not through cherry picking, and annotation are used.

Concordance, also known as Key Word in Context (KWIC), is used in this thesis to generate the corpus examples for analysis. Wulff and Baker explain that a concordance is a “list of all attestations (or hits) of a particular search word or phrase, presented with a user-defined amount of context to the left and right of the search word or phrase” (Wulff & Baker 2021: 161). Because concordance lines display repeated lexical environments around a search term, they allow for the identification of co-occurring patterns surrounding the node word. In this thesis, these co-occurring patterns include both statistically identified collocates and recurrent adjacent clusters (n-grams). A collocation is a word that often appears around another word and the relationship is found through statistics. Whereas an n-gram is the adjacent token. This approach is grounded in the co-occurrence model described by Gries (2019: 30), based on the assumption that distributional similarity is correlated with functional (semantic, pragmatic, etc.) similarity. Concordance and co-occurrence analysis are therefore used together to identify patterns that may reflect semantic relationships and polysemy.

AntConc (Anthony 2023), which is a concordance tool, is used to identify both collocations and n-grams. The collocation tool is set to a threshold of $p < 0.05$. This means that the p-value, which is “the probability to err when you accept the alternative hypothesis given the observed data” (Gries 2009: 32), could not be bigger than 5%. When the p-value is higher than 0.05 it is said to be not statistically significant and you fail to reject the null hypothesis (Gries 2009: 30). Then a Bonferroni correction is used to ensure that a null hypothesis is not mistakenly rejected (Cabin & Mitchell 2000: 246). This is impactful in this study, because without the Bonferroni correction there are three times more collocates that pass the threshold for *pait*. The collocations are measured for likelihood using the log-likelihood test, which is preferred over the chi-square due to its accuracy “for calculating collocations” (Rayson & Potts 2020: 122). The Log-likelihood is set to 4-term, and this refers to a contingency table of 2x2 indicating that the model is looking at how likely a word (A) appears with another (B) and also how often A appears without B. The model is also looking at how often B appears without A and how often neither A nor B appear. The purpose of the Log-likelihood model is to determine if there is an association between the two terms (Dunning 1993: 70–71). Finally, the window span is set to $5 \pm$ indicating that it is considering words that are within 5 terms from the right or left of the word in question. The n-grams are set to a size of two (bigrams). While some bigrams do appear as collocations, some do not meet the statistical thresholds but still represent meaningful associations in usage.

After the data is extracted from the corpus, there are many different ways one can analyze the list of selected co-occurrences. Gries describes a methodology that has been used for polysemy and synonymy, which involves annotation, percentage vectors, and statistical analysis. The full application of that methodology is not possible for this thesis because of the available computational linguistic tools for Tok Pisin. However, an adapted form of this methodology can be used. The examples can still be annotated for their characteristics. The annotations record both corpus-level and semantic information, including the co-occurring term, its frequency, the story and line from which the example is drawn, the left and right KWIC context, the sentence translation, the type of polysemic extension, the specific metaphorical or metonymic relation, semantic clustering, and any relevant notes. The basic statistics will assist in identifying patterns which will contribute to the description of the polysemy. A succinct versions of the methodology steps are as follows:

- (1) Generate all concordance lines for the target lexeme in AntConc.

- (2) Extract all collocations and recurring n-grams ($n = 2$) that occur more than once in the corpus.
- (3) For each identified pattern, a small number of concordance lines are selected for detailed qualitative analysis and annotation. These examples are selected to represent the range of usage contexts associated with the pattern.

4.4 Corpus and Data

When determining initial polysemic patterns in *pait* and *paitim*, dictionaries entries from Mihalic's *Jacaranda Dictionary and Grammar of Melanesian Pidgin* (1971) and Volker's *Papua New Guinea Tok Pisin–English Dictionary* (2024) were used. The rationale for these two dictionaries is that the Mihalic provides a strong foundational description of Tok Pisin, while Volker's is the most recently published and reflects more current usage of the language. Together, they offer both a historical baseline and a contemporary point of comparison.

This study analyzes a pre-assembled corpus of Tok Pisin folktales that were originally published in *Wantok Nuisepapa*, a Tok Pisin newspaper founded in 1969 by Fr Francis Mihalic (Cass2011: 210). The folktales were publicly available on the *Wantok* website (<https://wantokniuspepa.com/>), although the stories in Tok Pisin are no longer available as of 2026. The corpus consists of 1227 folk narratives submitted by community members and published between 1972 and 1997 (Slone 2001a: 24). It is comprised of 873,347 tokens. An English translation of all the stories is available in Thomas H. Slone's two-volume collection (Slone 2001a; 2001b), which were use for cross-checking meaning and for translations. The research corpus comprises the original Tok Pisin texts as the primary objects of analysis. Translations were consultative, not primary data.

This corpus was chosen for several different reasons. First, the authorship of the corpus is community-based, as people from across PNG were able to submit stories in Tok Pisin. For that reason, the corpus reflects natural, non-standardized usage of Tok Pisin. This is valuable for this CL study, as authentic usage patterns are being searched for. Second, in comparison to corpora based on modern news texts (e.g., Zimmerman 2011; Radomyski 2023), this corpus contains a higher concentration of narratives involving conflict and violence. The primary objective of this thesis is to examine war and violence vocabulary in Tok Pisin, and this corpus is rich with violence. However, it must be noted that this can create bias towards certain polysemic uses and not others

because of the genre. Finally, because the corpus spans approximately 30 years, it provides evidence of relatively stable usage patterns over time rather than reflecting only a narrow synchronic snapshot.

5. Analysis

5.1 *Pait*

Pait is one of the main terms associated with war and violence in Tok Pisin. Although it is most commonly translated as ‘fight’, its uses extend beyond war, while maintaining proximity to the semantic domain of war and violence. This section argues that *pait* is polysemic and that its extensions can be explained through CL. As one of the two case studies selected for this thesis, *pait* helps demonstrate how Tok Pisin war and violence vocabulary can develop structured polysemic networks of meaning.

Dictionary sources reflect *pait*’s complexity. Mihalic (1971: 147), for instance, divides *pait* into three main lexical groupings: (1) fight, *n.* (2) fight, *v.* and (3) bitter, *adj.* However, these broad word-class divisions each have what appears to be polysemic structure within them. The senses of *pait* form a more complex network of related senses, as seen in figure 7, which show the polysemy network of *pait* based on dictionary data from Mihalic (1971) and Volker (2024).

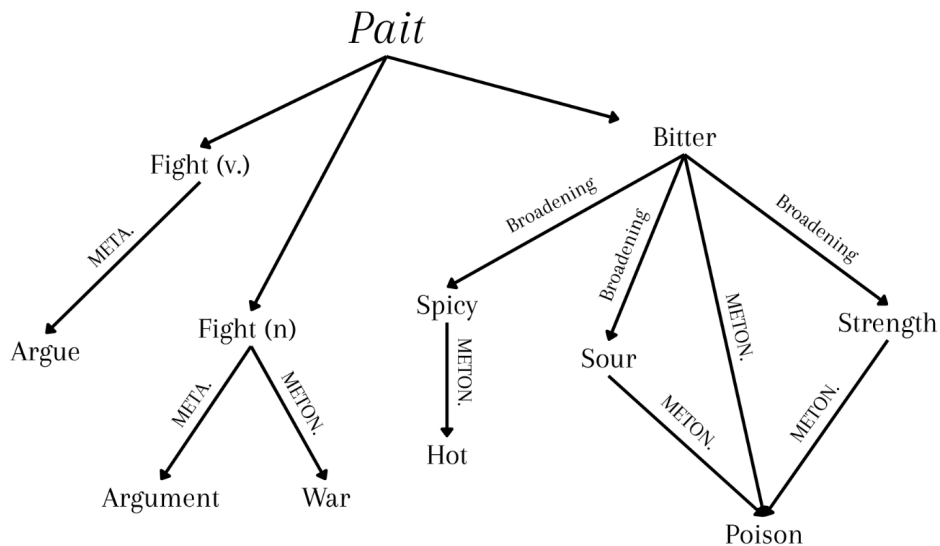


Figure 7: Polysemy of *Pait* Based on Dictionary Data²

² In the diagram, META. abbreviates ‘metaphor’, and METON. ‘metonymy’.

The diagram in figure 7 already presents a significant amount of polysemic extensions. The metaphor ARGUMENT IS WAR can be seen for both the verb and noun forms of *pait*. There is also a metonymic extension of FIGHT FOR WAR /SUB-EVENT FOR COMPLEX EVENT (Snoek 2007: 53), which is a source-in-target metonymy because a fight is a part of a war. *Pait* meaning ‘bitter’ broadens to incorporate different negative sensation in the mouth. Finally, there is the metonymy of CAUSE FOR EFFECT with ‘spicy’ extending to ‘hot’, while ‘bitter’, ‘sour’, and ‘strong’ also extend to mean ‘poison’.

As established in Chapter Three of this thesis, dictionaries provide an important foundation for identifying possible senses of a lexeme, but polysemy is more fully understood through language use. While both dictionaries offer examples of senses associated with *pait* and serve as a starting point for this investigation, corpus data makes it possible to examine how these senses are actually distributed and realized in usage. For this reason, the corpus is used here to build a fuller account of the polysemy of *pait*.

5.1.1 How Do People Use Pait

In the corpus, there are 512 instances of *pait*. AntConc was used to identify 41 collocates. However, not all of them were linguistically significant. Grammatical items such as the predicate marker *i*, as well as forms occurring fewer than three times, were excluded from closer semantic analysis. AntConc also identified 77 bigrams, but 42 occurred only once, and many overlapped with the collocations already identified. Ultimately, a list of 31 meaningful co-occurrence patterns was compiled, and three example concordance lines were selected for each pattern. There were 94 examples of *pait* analysed, as shown in Appendix A. These co-occurrence patterns were used to identify the most recurrent semantic environment of *pait* in the corpus. This process makes it possible to move from raw frequency data to an analysis of how the word is actually used in context.

5.1.2 I'm Going to Pait You During the Pait

The first sense in both dictionaries is *pait* as ‘fight’, and in the corpus, it can be seen that ‘fight’ is the most dominant sense and thus the prototypical sense. This is not unexpected because the contents of the corpus were deeply linked to conflict. The prototypicality is further supported by etymological evidence that gives an explanation for the close entanglement between *pait* and ‘fight’. Phonologically, *pait* [part] is very close to English *fight* [fart] with the main difference

corresponding to the initial bilabial plosive consonant. In Tok Pisin, English /f/ is sometimes adapted as /p/, as in *face* > *pes*, *fish* > *pis*, and *fall down* > *pundaun*. This makes the form *pait* a plausible adaptation of *fight*. Despite these cases, this sound adaptation is not totally regular in Tok Pisin (Mühlhäusler 1984b: 209). In fact, some loanwords retain /f/, as in *fan* > *fen*, *factory* > *fektory*, and *France* > *frans*. One possible explanation is chronology: words such as *fee*, which can appear as either *pe* or *fe*, suggest that different borrowings may reflect different periods or stages of phonological adaptation. If so, *pait* may represent an older borrowing, but not so old that it is a part of the Jargon phase, as they were more inclined to use *ad hoc* expressions for anger and murder (Mühlhäusler 1984c: 185). Mühlhäusler complicates the etymology of *pait* by suggesting that it may be a conflation of the English terms *fight* and *bite*. He proposes this because the two are phonologically similar and semantically related, making them paronyms (Mühlhäusler 1984b: 219). Tok Pisin has a tendency to do this type of conflation, as pointed out by Brenninkmeyer (cited in Mühlhäusler 1984c: 218). The phonological connection to *bite* [bart] is plausible, since the main difference between *pait* and *bite* lies in the voicing of the initial consonant. The semantic relationship, however, requires further explanation. One possible account is that an extension from *bite* to *fight* could be metaphorically motivated through shared embodied experience, especially the overlapping domains of pain, contact, attack, and aggression. It is possible that this metaphor, BITING IS FIGHTING, coalesces the ideas of violent encounters as both fighting and biting entail a sort of attacker as well as pain as a consequence of that attack. Alternatively, this could be a metonymy of PART FOR WHOLE, where biting is one of the aspects of fighting or a tool in the fight along with things like hitting, punching, and kicking. The key take away from this etymology is the dominance of the ‘fight’ sense. While the theory that *pait* can be a conflation of *fight* and *bite* is intriguing, it is clear that *pait* is deeply related *fight*, which further asserts the prototypicality of the sense.

Additionally, it should be mentioned that *pait* may also be related to the Kuanua word *pait* [pa.it]. In Kuanua, the word means ‘to do’, ‘to work’, or ‘to effect’ (Rickard & Fellmann 1964: 134). From a sociohistorical perspective contact between speakers of Kuanua and Europeans before the plantation stage is not unlikely. The phonological similarity between the forms is clear. However, a verb that means ‘to do’, ‘to work’, or ‘to put into effect’ is quite semantically light, and thus it is difficult to connect *pait* (Kuanua) to *pait* (Tok Pisin), which is quite semantically dense. The purpose of tracing etymology in this thesis is not to establish a single definitive origin,

but rather to identify possible contributing sources to give context to the relationships between meanings. On those grounds, the Kuanua connection remains a possibility, although it does not provide particularly useful insight for understanding the semantic networks and polysemic extensions of *pait*. Although the etymology of *pait* cannot be determined with complete certainty based on the evidence available, one thing is clear from the etymology. *Fight* is deeply entrenched with the development of *pait* and the semantic connection is plain to see.

Even if ‘fight’ is prototypical, which one? Is the verbal or the nominal prototypical? While this question is important for the polysemy network, a definitive stance on the matter cannot be taken with the evidence available. Frequencies might help to reveal the answer, but because only a select portion of the concordances were analyzed that cannot be answered in this thesis. However, the relationship between ‘a fight’ and ‘to fight’ can still be explored. There is a metonymy happening, even if it cannot be said which direction the metonymy is happening in. If ‘a fight’ as in the event is prototypical, then ‘to fight’ is a metonymy of ACTION FOR EVENT and is target-in-source. If ‘to fight’ as in the action of fighting someone is prototypical, then ‘a fight’ is a metonymy of EVENT FOR ACTION and is source-in-target. This thesis will simply refer to the prototypical sense as ‘fight’, for the sake of clarity, and consider both as equal metonymies for each other. The following examples from the corpus illustrate the meanings in actual usage.

(1) *Tupela i bin i dai long pait wantaim birua.*

two PM PST PM die PREP fight with enemies.

‘Their parents had died in a fight with enemies.’

(2) *Na bikipela pait kamap namel long tupela*

and big fight appear between PREP two

‘And a great fight arose between the two of them.’

In examples such as (1) and (2), *pait* is used as a noun referring to an event of conflict. In this nominal use, *pait* can be modified to provide additional detail, such as intensity (*bikipela pait* ‘big fight’) or associated emotional states as it often appears with *kros* ‘angry’. As an event noun, *pait* can also function as something that participants are involved in, can result in consequences such as death, or can be framed as occurring between entities.

(3) *Wanpela taim tupela kandere i pait long kia[u] bilong wel paul.*

one time two relative PM fight PREP egg POSS wild fowl.

‘One time, two maternal relatives were fighting over some wildfowl eggs.’

(4) *Ol i kirapim pait gen na bihain sait bilong wara i go.*

PL PM start fight again and follow side POSS water PM go.

‘They began to fight again, and they went upriver.’

In the examples where *pait* is a verb, it is often co-occurring with the participants in the fight, whether that be men, women, children, or animals. It also occurs with more general opponents like a group of people, a family, or a clan as seen in example (3). The construction may specify the cause or focus of the conflict, as in *pait long* (‘fight over/about’), or it may occur without an explicit object, reflecting its intransitive use. Additionally, the data shows that fighting can be represented as a repeated or ongoing action within a narrative sequence, as seen in (4). Other recurring patterns with *pait* in the sense of ‘fight’ include specification of the instrument, such as *stik* ‘stick/club’, or of the surrounding circumstances, such as the location or time of the event. The abundance and range of these examples support the conclusion that *pait* as ‘fight’ is the prototypical sense, providing the semantic base from which the lexeme’s broader polysemic network is structured.

5.1.3 I Don’t Appreciate When My Food Has Too Much Pait

One of the main branches of the polysemic network described in dictionary sources is centred on ‘bad taste’, which is also present in the corpus. The conceptual leap between the prototypical sense of ‘fight’ and ‘taste’ might seem too far and resemble homonymy. They seem to initially present as distinct and separate semantic domains, but in fact they are more connected than they seem, and this can be seen both through the etymological development of *pait* and when CL analysis is applied to the senses.

Mühlhäusler specifies that the conflation of *fight* and *bite* is particularly relevant for the sense of *pait* that is related to taste (Mühlhäusler 1984c: 219). The association between *bite* and bitterness is not unusual. It appears in English and in other Germanic languages, where *bitter* is

etymologically related to *bite*. Traces of this connection remain in Present-Day English as well: when speakers say that a curry *has bite*, they mean that it has a ‘sharp’ or ‘strong flavour’. Tok Pisin also mirrors this structure as the other way to express a powerful taste is to use *kik* (as in *this curry has kick*), which is borrowed from English *kick*. This suggests that the semantic extension from violence or force to flavour is consistent in Tok Pisin. Considering that connection, *bite* may help explain the taste sense historically, but it is not strictly necessary for the semantic motivation since Tok Pisin also allows force/impact meanings to extend into strong taste.

Mühlhäusler is not the only one to suggest etymologies for *pait*. The ‘bitter’ sense is often linked to Malay, and this appears to be the more widely accepted explanation. It is even presented as a fact instead of a possibility on mainstream websites such as Wiktionary and definify. Roosman mentions that *pait* is borrowed from Malay *pahit* [pa.hit], which also means ‘bitter’ (Roosman 1975: 230). This idea is presented as an example of Malay loanwords in Tok Pisin that have undergone semantic change. However, the shift from *pahit* ‘bitter’ to *pait* ‘bitter’ does not in fact involve a major semantic change. Although Roosman does not go into detail of his evidence for this connection, it is not too difficult to see why he makes this claim. In fact, Mühlhäusler even acknowledges the hypothesis in a footnote when discussing *fight* and *bite* as paronyms (Mühlhäusler 1984b: 219). Phonologically, the connection is plausible. The form can be explained through the loss of the glottal fricative /h/, which then triggers a diphthongization of the vowels. From a sociohistorical perspective, the relationship is plausible. The contact was due to a brief influence of Coastal Malay as a lingua franca. There were also Malay workers even after Tok Pisin was firmly established in the plantations (Mühlhäusler 1985: 199). Because of this timeline, it would be logical if *pait* ‘fight’ was already established and Malay *pahit* did not introduce the word *pait* to Tok Pisin but rather contributed the ‘bad taste’ sense, which was later conflated. This etymology would suggest that just as with the conflation of *bite*, that ‘bad taste’ would not be emerging just from an associative structure from ‘fight’

This discussion of the etymology assisted in understanding the relationships between the major senses of *pait* (‘fight’ and ‘bad taste’). The etymology revealed that it is likely that ‘bad taste’ emerged from the ‘fight’ purely using some sort of an associative structure. It also remains likely that there was a conflation with *bite*, as suggested by Mühlhäusler, or with *pahit*, as proposed by Roosman. A conservative etymology that accounts for both Mühlhäusler’s and Roosman’s theories would be that *pait* came from *fight* and retained that meaning. Then, elements from both

bite and *pahit* contributed some of their senses to the secondary meaning of ‘bad taste’. However, this is not the explanation that this thesis takes because of the highly polysemic nature of *pait*. It is more likely that *pait* ‘bad taste’ emerged from an associative structure, as did all the other polysemic meanings, as this is how meanings emerge in this term.

Nevertheless, even if there are multiple origins and confluences happening, the relationship between ‘fight’, ‘bite’, and ‘bitter’ converge within a closely related semantic space of pain and violence. This makes it difficult to dismiss *pait* ‘fight’ and *pait* ‘bitter’ as simply a homonymy or a coincidence of their forms being identical. Therefore, even if the ‘bad taste’ sense is coming from a different source language, *pait* would still be a case of a homonymic form being reanalyzed as polysemic at a synchronic level, which was acknowledged as a possibility in section 4.1.1. This aligns with the broader pattern observed in Tok Pisin, where domains such as violence, force, and intensity extend into the semantic field of taste (‘fight’ > ‘bad taste’, ‘kick’ > ‘spice’). There is a conceptual connection at a synchronic level which is a metaphor of NEGATIVE TASTE IS A FIGHT, specifically in the mouth. A correspondence can be seen where flavour and the mouth → enemies/participants, fight → painful event that must be endured, bad taste → method of attack. Ultimately, the associative structure is using the idea that when you have a negative flavour in your mouth, it is unpleasant and something you must endure, just like a fight is an unpleasant event that must be endured. Whether the method of attack is a punch or a kick, or a negative sensation that causes a negative taste, the metaphor simply sees the battleground moved from the broader environment into the mouth. A prime example of *pait* as ‘bad taste’ is seen in example (5), with other good examples coming from this story which is called “The Man Who Found Tobacco” (Slone 2001a: 216–217).

(5) *Liklik boi ya i kros nogut tru na em i tok, `Dispela sup i pait nogut tru.*

Little boy really PM angry bad very and 3SG PM said this soup PM bitter bad very
 ‘The little boy was irate and said, “This soup is dreadfully bitter.’

(6) *Pikinini, sapos yu kaikaim mit bilong kapul em i no inap pait olsem dispela sup ya.*

Child if 2SG eat meat POSS possum 3SG PM NEG fight like this sup really
 ‘Son, if you eat the marsupial meat, it will not be as bitter as the soup.’

In these examples, *pait* clearly refers to flavour. While Slone has chosen to translate *pait* as ‘bitter’, it must be acknowledged that this is a translation choice and not necessarily because ‘bitter’ is the correct translation. ‘Strong’ would have also worked because the context of the story is talking about Tabacco and it is not uncommon to describe the sensation Tabacco gives with strength rather than bitterness, as the Mihalic dictionary has done (1971: 148). In the corpus *bitter* is not the only ‘bad taste’ as seen in example (7), where Slone uses *tangy*. However, it is likely that ‘bitter’ is the prototypical sense within the ‘bad taste’ branch because it is the most stable and specific realization of this domain. *Pait* ‘bitter’ would then broaden to incorporate different ‘bad tastes’ as seen in the corpus. This broadening is also seen in the dictionary, but ‘tangy’ is not one of them, although it is still in the same general semantic field of ‘bad taste’.

(7) *wara ya i no olsem ol arapela wara bikos em i pait olsem solwara.*

Water really PM NEG PL other water because 3SG PM fight like saltwater

‘It was not like other water be-cause it was tangy like saltwater.’

Pait ‘fight’ is clearly dominant and for that reason it might seem that *pait* ‘bad taste’ is only sparsely attested in the analyzed examples, considering it is one of the main branches of the network and a main sense. There are several possible explanations for this discrepancy. The first relates to the composition of the corpus itself. Although some stories include references to food and flavour, these are far outnumbered by narratives focused on conflict and violence, which naturally favour the ‘fight’ sense of *pait*. A second explanation concerns methodological limitations. Taste-related uses may be more difficult to capture through co-occurrence analysis, as they can occur with a wide range of lexical items and may not form strong or frequent co-occurrence patterns. Despite this limited attestation, there is no indication that *pait* ‘bad taste’ is fading from the network. As seen in Volker, the most recent dictionary of Tok Pisin, the only translation given for ‘bitter’ is *pait* (2024: 206). This suggests that the sense ‘bitter’ remains lexically stable and continues to anchor the taste-related branch of the polysemy. At the same time, there is some evidence that *pait* may be narrowing in relation to other sensations, as meanings such as ‘spicy’, ‘sour’, and ‘poisonous’ are expressed through other lexical items. In particular, the term *kik* appears several times in the corpus to express spiciness. The corpus also provides no indication

that *pait* is used to express ‘poison’ or ‘intoxication’. Although poison and intoxication do appear as topics in the corpus, other words are used to express these concepts. The evidence therefore suggests that while *pait* retains a stable meaning of ‘bitter’, its role within the domain of taste is becoming more restricted, reinforcing the idea that this sense remains peripheral to the prototypical ‘fight’ meaning within the broader polysemic network.

5.1.4 *Lost the Pait but Won the Pait*

A ‘fight’ to a ‘war’ is an interesting extension. As described with the dictionary data, this is a metonymically motivated extension of SUB-EVENT FOR COMPLEX EVENT. A fight is the sub-event, and the source and war are the complex event, which is the target making, this metonymy source-in-target. In the corpus, however, the relationship between ‘fight’ and ‘war’ is complicated by the way *pait* and *woa* are treated alongside one another. In contexts where the meaning is clearly ‘war’, the corpus sometimes gives “*woa* [*pait*]”, indicating that the author used *woa* while the editor supplied *pait* in brackets. This suggests that *pait* may have been understood by the editor as a standard or clarifying equivalent for the concept. At the same time, it also raises questions about the semantic boundaries of *pait* and *woa*. On the one hand, the editorial gloss may imply that *pait* still overlaps with the semantic space of ‘war’. On the other hand, the author’s choice of *woa* may suggest either that this meaning is shifting away from *pait* toward *woa*, or that *pait* is reasserting itself as the more standard term through editorial intervention. This ambiguity may also be reinforced by Slone’s translations, which tend to be consistent with *pait* as ‘fight’ and *woa* as ‘war’. Nevertheless, the corpus still provides examples in which *pait* clearly carries the metonymic extension from ‘fight’ to ‘war’, as seen in example (8).

(8) *Long taim bilong pait wantaim arapela birua, Dok i save go pas long ol olsem komanda.*

PREP time POSS fight with other enemies dog PM HAB go fight PL like commander

‘At times of war with the enemies, Dog would go in front as the commander.’

Identifying when *pait* means ‘war’ rather than ‘fight’ is not straightforward, since the distinction is highly context dependent. ‘War’ cannot always be determined from the immediate co-occurrences. It often depends on broader narrative features that include details such as scale, duration, and the presence of organized opposition between groups. For this reason, forms such as

bikpela pait ('big fight') do not necessarily indicate 'war', even if such an interpretation may initially seem plausible. When *pait* carries the sense of 'war', this meaning must therefore be established through wider narrative context rather than through the lexeme in isolation.

5.1.5 *We Will Have to Settle This Pait with a Fist Pait*

ARGUMENT IS WAR is one of the most known conceptual metaphors in English, so its presence in Tok Pisin is not unexpected. What is particularly interesting in Tok Pisin, however, is the way this metaphor is linguistically structured. When it is explicit that the conflict is verbal rather than physical, the expression *pait long toktok* is used, literally meaning something like 'fight with talk' or 'fight through speech'. This construction suggests that language itself is construed as the means or instrument of conflict. In other words, the participants are not engaging in physical violence but in a verbal struggle carried out through words. This can be seen in example (9).

(9) *Nau tupela i pait long toktok i go i go inap tulait.*

Now two PM fight PREP speak PM go PM go until night

'The two of them argued until dawn.'

It should be noted that this type of extension is few and far between in the corpus. In (9) *pait* is specified with *toktok*, and thus it is not occurring in an environment without a trigger for the metaphor. However, this extension still shows how *pait* has grown from the prototypical 'fight', which entails physical violence. It extended in a way where it loses the physicality of the action while honing in on the idea of conflict, which is similar to another extension ENMITY FOR FIGHT. The metonymy ENMITY FOR FIGHT—or more generally RESULT FOR ACTION (source-in-target) or EFFECT FOR CAUSE (source-in-target), depending on the context—is not present in the dictionary, but it is in the corpus. It also uses conflict in order to extend, while losing the physical aspect of *pait*. In example (10), the extended meaning emerges through a RESULT FOR ACTION metonymy because the context of the story is that the enmity arises after the fighting has stopped and thus is the result. The existence of *Kros* before *pait* in the sentence is not affecting the extension, as in the three instances of that construction it is not consistently enmity.

(10) *Bihainim dispela stori na tude i gat bikpela kros pait i stap namel long ol lain bilong man.*

After this story and today PM have big anger fight PM stay between PREP groups POSS men
'After this story, and today, there is a great enmity between men and boys.'

Whether the extension is toward argument specifically or toward conflict more generally, *pait* shows polysemic movement toward meanings that are less physically violent, while still retaining the core idea of opposition. Together, these examples show that *pait* can move beyond literal bodily violence while still preserving the broader conceptual structure of conflict.

5.1.6 I Look at Fire Pait-ers Pait in the Water

A set of extensions that are not in the dictionary are those that related to how one fights nature. This is seen in cases where *pait* is used in relation to inanimate forces rather than animate opponents like a human or animal. The metaphorical extension involved in expressions such as *fire fighting* is so entrenched in English that it hardly seems metaphorical at all. However, it still reflects the metaphor A STRUGGLE IS A FIGHT. In this metaphor, there is a mapping of things that must be overcome → enemy, struggle → fight, overcoming the struggle → winning/goal of the fight. An example used in the corpus is fire fighting as seen in example (11).

(11) *Menang i pait strong long kilim indai dispela paia tasol nogat.*

Menang PM fight strong PREP kill die this fire but bad

'Menang fought the fire strongly, trying to extinguish it.'

This example shows how *pait* can be used for more than just a prototypical fight of one agent battling another. *Pait* can be used in contexts where there is not a battle between participants, but instead a general struggle between the agent and an inanimate force that must be resisted or overcome. This extension is also seen in English, in phrases like *she's fighting cancer*. In the data that was analyzed, fire fighting was the only instance of *pait* being used in this way, but this does not necessarily mean that *pait* is never used with other inanimate forces like sickness and natural disasters. Nature does come up again in relation to *pait* but it actually shows a different associative structure as seen in example (12).

(12) *mi bai go long bikipela wara na lukim ol manmeri i pait long wara.*

1SG FUT go PREP big water and look-TR PL people PM fight PREP water

‘I’ll go to the river and watch the people splashing in the river.’

In (12), the people are not struggling with the water, which might be considered something like drowning. Instead, they are playing in the water and splashing each other. This can be seen as FIGHT IS GAME, which is particularly interesting because a common metaphor in English is GAME IS FIGHT. Here a fight is metaphorically extending to mean game, where the source is fight and the target is game. The people are using the water as a harmless weapon in a non-dangerous war, and it has made another polysemy branch. Where argument and enmity focus on the physical aspect of *pait*, game metaphorically maps a non-dangerous form of *pait*, while preserving other features like the physicality. The two metaphors of *pait* presented in this section have shown distinct polysemies of *pait*. One can struggle against an inanimate force or use *pait* as a game. Both tap into different key aspects of *pait* and establish further polysemies that the dictionary has not captured.

5.1.8 *Let’s Meet up at the Pait with Our Pait*

In English there is the possibility for a distinction via form and meaning when indicating the place of the fight (battlefield) and the fight itself (fight). In Tok Pisin, this distinction does not exist. Although it only occurred once in the analyzed data, there were multiple examples where an argument could have been made for either *pait* ‘fight’ or *pait* ‘fight location’. The underlying metonymy is PLACE FOR ACTION, which is source-in-target as seen in example (13).

(13) *Sori nau бага ya i kaikaim tit, `Bilong wanem mi go pait?*

Poor now fellow really PM eat teeth PREP Q 1SG go fight

‘The poor guy gnashed his teeth, “Why did I go to the battle?”

In this example, there is still the possibility that *pait* is ‘to fight’ instead of ‘fight location’, but because of the context it is clearer that it is truly the ‘fight location’ sense. In the story the man is not a part of the fight and instead is just at the location when he is injured (Slone 2001a: 93–94). Nevertheless, this ambiguity is important when distinguishing polysemy and it is vital to be certain before proposing another polysemic branch. In this case, it is clear that *pait* can be ‘fight location’

and it is not unlikely that more examples appear in the concordance lines that were not chosen for this study.

Another metonymy which was sparsely attested was *pait* as ‘weapon’. This metonymy can be described as ACTION FOR INSTRUMENT, which is target-in-source. Not all weapons belong to this metonymy, for example, *spia bilong em long pait* is a way to say ‘fighting spear’ or ‘war spear’, but while this has metonymic elements in the form of INSTRUMENT FOR PURPOSE, it is not polysemic and thus out of the scope of this study. As seen in example (14), *pait* can be truly polysemic by sharing the same form and having related sense for ‘weapon’.

(14) *Birua man i kisim samting bilong pait olsem spia, banara.*

enemy man PM get-TR something POSS fight like spear, bow.and.arrow

‘The enemy had some sort of weapon such as a spear, or a bow and arrows.’

One should be cautious not to be influenced by the translations presented. However, it would be difficult to translate this meaning without ‘weapon’. *Something for war* almost captures the sense, but that is not quite as accurate as ‘weapon’. For that reason, it can be considered a polysemic extension of the prototypical sense of ‘fight’.

5.1.8 Polysemy Network of *Pait*

The corpus-based analysis allows the earlier dictionary-based network of *pait* to be refined. Most importantly, the data shows that the polysemy of *pait* is not an unrelated group of senses that share the same form, but a structured network organized around the prototypical sense of ‘fight’. Within this prototypical sense, it is unclear whether ‘to fight’ (verb) or ‘a fight’ (event) is the most prototypical based on the evidence available. For that reason, this remains inconclusive even though the relationship between the two sense is metonymic of ACTION FOR EVENT OR EVENT FOR ACTION.

This central sense of ‘fight’ either verbal or nominal by far the most strongly supported in the corpus and serves as the base from which the other extensions are motivated. From this prototypical sense, extensions have emerged like ‘bitter’. Although this sense seemed unconnected, it was determined through etymological and CL analysis that it is in fact polysemic with ‘fight’. This is because of the share domain of pain and the metaphor of NEGATIVE TASTE IS

A FIGHT. Within this branch, ‘bitter’ is treated as the central sense because it is the most clearly established and consistently attested taste meaning of *pait*. ‘Bitter’ is then extended through broadening to account for other negative flavours such as ‘tangy’, ‘spicy’, ‘sour’, and ‘strong’. The metonymies to ‘hot’ and ‘poison’ do not appear in the corpus, but they cannot be excluded from the network as they remain in the dictionary.

Outside of sensations, there are metonymic extensions from ‘fight’ to ‘war’. The specific metonymy is SUB-EVENT FOR COMPLEX EVENT, and this sense was seen complicated by the introduction of other terms to mean war, namely *woa*. *Pait* as a non-physical event was present through metaphors and metonymies. ARGUMENT IS WAR was used to extend the conflict aspect of ‘fight’ away from the physicality of the event. The metonymies RESULT FOR ACTION or CAUSE FOR EFFECT were used to stretch the meaning of *pait* to a sense that also does not have the aspect of physicality but instead focus on the emotional aspects of the fight like enmity, which can be present before or after the fight.

Pait does not have to be the traditional match between two agents, but instead it can be extended to refer to a struggle with something difficult and inanimate. This is with the metaphor A STRUGGLE IS A FIGHT, and was specifically shown with fire fighting, but is not necessarily restrained to those activities. More data would be needed to determine how far this extension goes. Nature was also involved with *pait* in the example showing how *pait* can be metaphorically extended to mean GAME IS FIGHT. The physicality of *pait* was preserved but the dangerous was removed in this metaphorical extension.

Pait was also extended to mean ‘fight location’ through the metonymy PLACE FOR ACTION. It was shown that *pait* could refer to what is called in English the *battlefield* and specifically be concerned with where ‘the fight’ or ‘fighting’ was taking place instead of the event/action itself. Additionally, *pait* can be metonymically extended to refer to weapons instead of the fight. This metonymy was INSTRUMENT FOR PURPOSE.

At the beginning of Section 5.1 a diagram of the polysemy of *pait* was presented based on the dictionary data available. While that diagram was not completely inaccurate, it can be expanded to reflect a more accurate picture of the polysemy in *pait* based on dictionary and corpus data and thus reflecting its actual usage patterns.

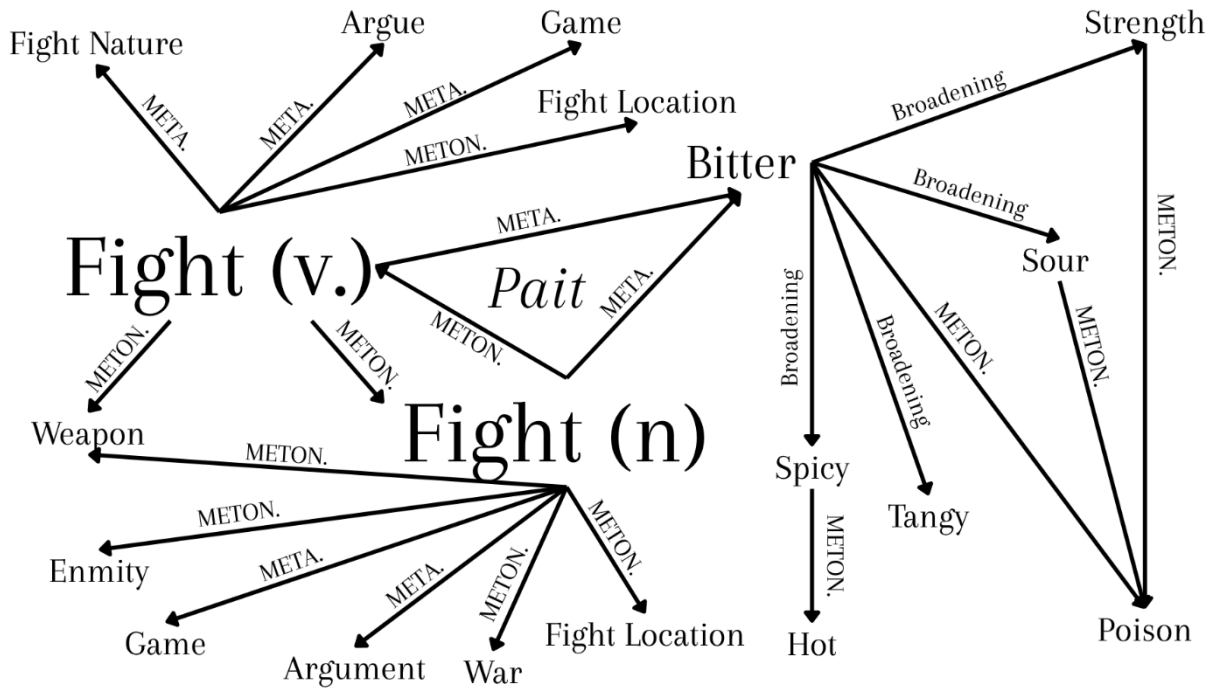


Figure 8: Polysemy of *Pait* Based on Dictionary and Corpus Data

Overall, the evidence shows that *pait* is polysemic in a structured and motivated way. Its meanings are related not by accidental similarity, but by identifiable processes of metaphor, metonymy, and broadening, all anchored in the semantic prominence of conflict. Because of this, *pait* demonstrates how a Tok Pisin lexeme associated with war and violence can develop an internally organized polysemic network whose structure becomes visible only when dictionary evidence, etymology, and corpus usage are considered together.

5.2 *Paitim*

In Tok Pisin, transitivity—the requirement that a verb take a direct object—is marked by the suffix *-im* (Smith & Siegel 2013). On a formal level, *paitim* is the transitive form of *pait*. The distinction may seem straightforward: one can *pait* or *pait* with/for/against something and one can *paitim* someone/ something. However, there is also a semantic difference between *pait* and *paitim*. While *pait* generally means ‘fight’, *paitim* is better understood as ‘hit’. In this way, *paitim* is not only derived morphologically through the suffix *-im* but also emerges through a metonymic extension. More specifically, this relationship can be understood as COMPLEX EVENT FOR SUB-EVENT (Snoek 2007: 103), where the complex event is the fight and the sub-event is a hit, and thus this is a target-in-source metonymy.

Paitim functions exclusively as a verb and Mihalic does not divide its senses in the same way as *pait*. Instead, he lists all the different senses, “to hit, to strike, to knock, to beat, to make one drunk or senseless” (Mihalic 1971: 148) as equal to each other. Volker has much of the same definition, except he does not include “to make one drunk or senseless” and he adds “to bash, to attack, to assault” (Volker 2024: 104). This lack of sub-dividing and grouping does not indicate an absence of polysemy, and instead it suggests that the senses of *paitim* are more consistent in their word class and syntactic function. *Paitim* does exhibit considerable polysemy in the dictionary data alone, as shown in Figure 9.

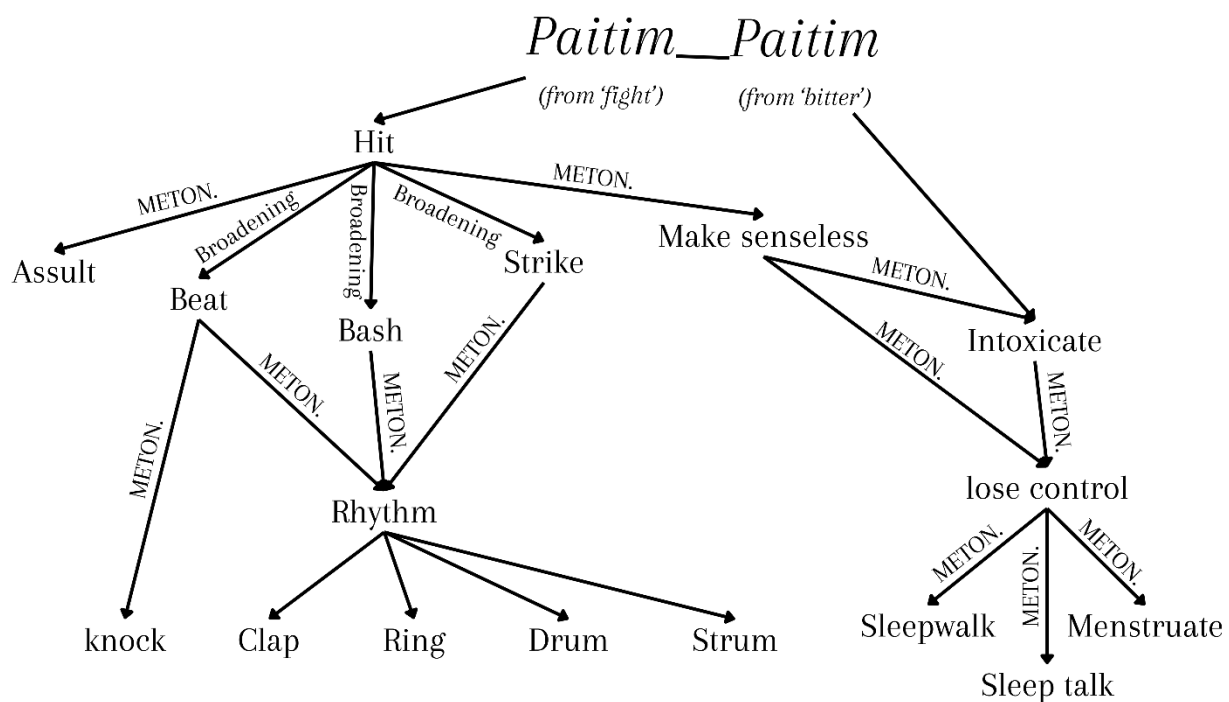


Figure 9: Polysemy of *Paitim* Based on Dictionary Data

This diagram begins with the sense ‘hit’, which, through the metonymic extension COMPLEX EVENT FOR SUB-EVENT, gives rise to ‘assault’. With the extension SALIENT ACTION FOR PROCESS, ‘hit’ also gives rise to ‘knock’. ‘Hit’ broadens into other varieties like ‘beat’, ‘bash, and ‘strike’. From ‘beat’, ‘bash, and ‘strike’, further metonymic extensions of SALIENT ACTION FOR PROCESS lead to the rhythmic senses which are ‘clap’, ‘ring’, ‘drum’, and ‘strum’. Finally, from ‘hit’ there is also a further metonymic extension of CAUSE FOR EFFECT, in which the violent action leads to a state of ‘senselessness’. This is then followed by EFFECT FOR CAUSE, where ‘senselessness’ is extended to mean ‘intoxication’ or ‘loss of control’. The sense ‘loss of control’,

which may be manifested through behaviours such as ‘sleepwalking’, ‘sleep talking’ or ‘menstruation’, can also be understood as arising through a metonymic extension from ‘intoxication’, again of the type EFFECT FOR CAUSE.

This complex network just scratches the surface of the polysemy in *paitim*. In fact, the corpus data revealed more polysemic extensions, which were unaccounted for in the dictionary data than with *pait*. In the following section, the polysemic extensions attested in the corpus, together with the main dictionary senses, are discussed in greater detail in order to provide a fuller picture of the semantic extensions. This analysis shows how interconnected the different sense of *paitim* are and further strengthens the argument that the senses are polysemic. Additionally, this section illustrates the CL motivated extensions in the usage patterns as presented in the corpus.

5.2.1 How Do People Use *Paitim*

In the corpus, *paitim* occurs 402 times. AntConc identified 27 collocates and produced a list of 92 bigrams but 41 only occur once in the corpus. Many of the remaining bigrams were also statistically significant enough to qualify as collocates and thus repetitions were eliminated. *Paitim* underwent the same selection process as *pait* and so there were 33 meaningful co-occurrence patterns where three from each were selected for further analysis, except for one term where two of the three occurrences had the exact same wording even though they came from different sources. As shown in Appendix B, there are 98 analysed examples of the use of *paitim* that were used in this study.

5.2.2 *Paitim* Them Where It Hurts

As with *pait*, etymology helps clarify semantic relationships. However, in the case of *paitim*, the issue is not its separate etymology, since it derives directly from *pait*. Instead, the focus is on what that relationship between *pait* and *paitim* reveals about the meaning of *paitim*. *Paitim* ‘violent hit’ is the prototypical sense, and the violent aspect is essential. This is because *paitim* comes from *pait* ‘fight’, which is inherently violent. As noted earlier in this section, the path from *pait* to *paitim* can be understood through metonymy COMPLEX EVENT FOR SUB-EVENT. The hits that are happening in a fight are not the non-violent kind and so in this extension, the violent aspect is retained.

The English translations can make the polysemic situation seem more complicated than it is. Slone sometimes translates *paitim* as *hit* and at other times as *beat*, but this does not reflect a

difference in the Tok Pisin meaning itself and is in fact a translation choice. As seen in examples (15) and (16), both instances of *paitim* share the exact same wording in Tok Pisin, as well as the same essential meaning of the dog being violently struck, even if the English translations suggest slightly different varieties of hitting.

(15) *Na em i kisim stik na paitim dok nogut tru.*

And 3SG PM take-TR stick and hit-TR dog bad very

‘He took the stick and beat the dog badly.’

(16) *Papa bilong pikinini i harim olsem pikinini bilong i dai em tu i kirap na paitim dok nogut tru.*

Father POSS child PM hear-TR that child POSS PM die 3SG also PM rise and hit-TR dog bad very

‘The baby’s father heard that the baby was dead, and he too hit the dog terribly.’

Some of the meanings for *paitim* which have been extended do not carry the same violence and instead can also be used in more neutral contexts. The core idea of contact through striking remains the same, but the harm associated with the prototypical sense is reduced. In English, an extreme example of this difference could be a *punch* versus a *bump*. While *paitim* still carries the same violence in its prototypical form, not all of its usages carry the same intention to inflict pain or injure. Typically, when *paitim* ‘hit’ is in the more violent sense, it is co-occurring with agents and victims, such as men, women, and especially body parts. Broadening is the best way of understanding this shift which reduces the interpretation of harm without altering the underlying event structure. There are many examples of both extremely violent and more neutral uses of *paitim* in the corpus and the dictionary, but an example of this more neutral broadened use can be seen in example (17).

(17) *Long moning lapun i paitim ston na dua i op gen na em i tokim.*

PREP morning old PM hit-TR stone and door PM open again and 3SG PM tell-TR

‘In the morning, the old man hit the stone and the door opened again.’

These cases of a broadened *paitim* most often occur with inanimate objects but are not limited to such. It is also more complicated to know for sure when *paitim* is going to appear in the less violent sense because when it co-occurs with objects, they are sometimes used as weapons for the *paitim*, like stones or sticks, instead of as the object that has been *paitim*. Corpus and dictionary data support the idea that *paitim* ‘violent hit’ is the prototypical sense of the word. This prototypical sense can then be understood as the base that the other senses of *paitim* extend from, including the ‘non-violent hit’.

5.2.3 *She’s Going to Paitim Them All*

The metonymic extension of ASSAULT FOR HIT is particularly well represented in the corpus. This extension can be understood as a case of SUB-EVENT FOR COMPLEX EVENT. In the development from *pait* to *paitim*, the broader event of fighting is reduced to a salient sub-event, namely the act of hitting. However, within *paitim*, there is a further extension in which this act of hitting comes to stand for a larger event of assault. This does not mean that *paitim* returns to the meaning ‘fight’, although it is translated that way in some of the examples. Rather, the sense is more specifically ‘assault’, reflecting a difference in participant structure. A fight typically involves mutual participation between two parties, whereas assault involves one participant acting upon another. This can be seen in examples (18) and (19).

(18) *Na tupela i kros nogut na i paitim dispela lapun meri na kilim em i dai na ol em liklik.*

And two PM angry bad and PM hit-TR this old woman and kill-TR 3SG PM die and PM small
 ‘The brothers were furious and beat the old woman to death, breaking her into little pieces.’

(19) *I no longtaim em i apim Uyae na paitim em nogut tru.*

PM NEG long.time PM lift-TR Uyae and hit-TR bad very
 ‘Before long, he lifted up Uyae and beat her terribly.’

The co-occurrence patterns were not the most insightful in identifying when an example would be ‘hit’ or ‘assault’. Instead, most differentiations needed to be made based on context, instead of seeing any larger patterns of when ‘assault’ would appear instead of ‘hit’. Examples such as (18) and (19) illustrate the use of *paitim* ‘assault’ and also differentiate this sense from the

prototypical sense of ‘violent hit’, further reinforcing the idea that it is a polysemic extension. While a ‘hit’—violent or neutral—may refer to a single, punctual action, the ‘assault’ sense involves duration, consisting of a series of strikes that together form a single event. This difference in event structure motivates the metonymy; the repeated sub-event of striking comes to stand for the larger event of assault, making this a case of SUB-EVENT FOR COMPLEX EVENT.

5.2.4 *The Best Musicians Paitim Their Instrument Daily*

The use of *paitim* in rhythmic activities is one of the most frequent senses in the corpus. ‘Drum’ is the most logical extension from *paitim*, as the way one plays a drum is through hitting. The most accurate way of describing this extension is to go from *paitim* ‘violent hit’ to *paitim* ‘hit’ and then a metonymy of REPEATED ACTION FOR ACTIVITY. In this metonymy the punctual actions of hitting are extended through repetition to refer to a broader ongoing process of making music or rhythm. The activity is the target, and the repeated action is the source, making this metonymy source-in-target. In addition to drums being used with *paitim*, there are instances of a *paitim susap* as seen in example (20). A *susap* is a traditional mouth harp that is played through a hitting motion in order to struma piece of wood on the instrument that sits on the mouth. For that reason, it is likely that *susap* when through the same extension as drumming. ‘Ring’ as in a bell is also likely to come form ‘hit’ through the same extension as drum and *susap*.

(1) *Man Digindagan i givim pinis na em i kirap na paitim kundu na singsing na i go.*

man digindagan PM give-TR finish and 3SG PM get.up and hit-TR drum and sing and PM go
 ‘Digindagan made an offer to her, then he got up, hit the hand drum, sang and departed.’

(20) *Bai mi paitim susap i go daun na kamap long haus bilong mama.*

Will 1SG hit-TR susap PM go down and arrive PREP house POSS mother
 ‘I’ll play the Jew’s harp and go down to mama’s house.’

The dictionary also has attestations of ‘strum’ being used with *paitim* and it is unclear whether this is an extension from ‘hit’ or from one of the other instruments. ‘Drum’ to ‘strum’ could either be a broadening, where it to incorporate all instruments. Considering the *susap* involves hitting and strumming, it could be the specifically linked to this instrument. Playing the

susap involves hitting, strumming, using the mouth to amplify the sound, and all of this is reduced to one component of that event, which is the strumming motion. That makes this a WHOLE FOR PART metonymy. However, it is also just as likely that this is another metonymic extension of REPEATED ACTION FOR ACTIVITY, like the other instruments. The other rhythmic sense that is not attested in the corpus, but present in dictionary data is ‘clap’. *Paitim* ‘clap’ is extended directly from *paitim* ‘hit’ with REPEATED ACTION FOR ACTIVITY. All of the rhythmic senses from the corpus and dictionary data show that *paitim* has a rich set of polysemies related to music. These extensions are examples of the far reach of *paitim* into semantic domains that might seem completely unrelated.

5.2.5 *Paitim, Paitim! Who’s There?*

Separating *knocking* from the other rhythmic and musical senses of *paitim* may seem like an erroneous decision, but it is ultimately justified by the difference in function. While the musical and rhythmic extensions move into the semantic domain of music, knocking is not primarily associated with rhythm in the corpus. Instead knocking is used for communication, specifically knocking on a door. For this reason, knocking forms a distinct extension within the polysemic network rather than simply falling under the broader category of rhythmic striking. The relationship between ‘hit’ and ‘knock’ is metonymic, specifically REPEATED ACTION FOR COMMUNICATIVE ACTIVITY. The act of hitting something is extended through repetition to stand for the process of knocking. This is a source-in-target metonymy, since the source meaning ‘hit’ is apart of the target event ‘knock’.

(21) *Tewel man ya i paitim dua na askim ol man sapos em inap long go insait long haus.*

Ghost man really PM hit-TR door and ask-TR man if 3SG can PREP go inside PREP house

‘The ghost man knocked on the door and asked the men whether he could go inside the house.’

This example shows how *paitim* can refer to a specific type of knocking that has deeper meaning than just the rhythmic senses. *Paitim* ‘knock’ has a distinct metonymy and function that makes it separable in the polysemy network, even though it shares the same repetitive element as other extensions. The communicative purpose of knocking, producing sound to signal presence, is comparable to certain types of drumming, particularly the, which is a *garamut*, which is sometimes

called the slit gong. This drum is “used primarily to accompany dance and for signalling” (Gourley 1974: 61-65). For this reason, the *garamut* sits at the boundary between the musical and communicative branches of the polysemy network and could reasonably be analysed as belonging to either.

5.2.6 *I Used to Paitim, But It's a Young Person's Game*

The senses of ‘make senseless’ and ‘intoxication’ are more complex than the other extensions of *paitim* because they involve multiple origins. One possible route is to stretch ‘violent hit’ to ‘make senseless’ through a metonymy of CAUSE FOR EFFECT. ‘Violent hit’—most likely to the head—is the cause for the effect of senselessness, making it source-in-target. Then to go from ‘make senseless’ to ‘intoxication’, there is a metonymy of EFFECT FOR CAUSE. This is because the effect being senseless is often associated with being caused by intoxication. An alternative pathway to intoxication is through *pait* ‘bitter’. This connection is plausible because both senses involve the semantic domain of taste, particularly unpleasant taste. Intoxication may be linked to negative flavour through a metonymy of CAUSE FOR EFFECT, in which the bitter taste of a substance like a drug or alcohol stands for its intoxicating effect. In this case, the unpleasant flavour is associated with substances such as alcohol or drugs, whose consumption produces intoxication. It cannot be determined for certain if one is more correct than the other, much like with etymology, with the evidence available. Both theories work metonymically, however, it must be stated that the link from ‘senseless’ to ‘intoxication’ seems stronger, simply because *pait* ‘bitter’ does not tend to refer to any intoxicating substances, except possibly ‘poison’.

In the corpus there were no instances of *paitim* being used to mean ‘senseless’ nor ‘intoxicated’. This does not necessarily indicate that this branch of the polysemy is fading out. It is more likely a reflection of the genre of the corpus and also of the data being analysed. The daughter sense of ‘loss of control’ is also not present in the corpus. ‘Loss of control’ is a metonymy from either ‘make senseless’ and/or ‘intoxication’ as it is an example of EFFECT FOR CAUSE. From ‘loss of control’ there are some specific examples that Mihalic gives to illustrate this use. Specifically, *paitim* being used to mean ‘sleepwalk’, ‘sleep talk’ and ‘menstruating’. All of these senses are associated with loss of bodily control. While these extensions might seem quite far from the others like ‘hit’ and ‘assault’, it is actually one that occurs English. For example, expressions

such as *tiredness hit me* or *I'm fighting to stay awake* conceptualize loss of control as the result of an external force acting upon the body.

5.2.7 *If You Want Mush, You Must Paitim It Yourself*

Although it is not in the dictionaries, one of the most striking patterns in the corpus was related to food production. Food production is the overarching theme of this branch polysemy where *paitim* 'hit' is specifically used to mean 'to prepare food'. This extension is an example of SALIENT ACTION FOR PROCESS. Salient action is the prominent feature, and in this case that is the utter destruction of a plant in order to prepare it. The process is food production and so this is a target-in-source metonymy. This metonymy is different from the rhythmic branch of REPEATED ACTION FOR ACTIVITY because it highlights the salient action, since food production has many steps, whereas *paitim* 'drum', 'clap', and 'knock' only consisted of the repeated hitting. All the usages of *paitim* 'food production' were specifically related to plant processing. In example (23), the plant is sago.

(22) *Long taim tupela marit i wok long gaden o paitim saksak.*

PREP time two married PM work PREP garden or hit-TR sago

'When the married couple worked in the garden or made sago.'

This is an example of sago being prepared into a mush so that it can be used in cooking. While the process involves hitting, it does not only involve hitting as there is cutting, washing, and draining as well. It is more specialized and complex, which is why it is considered a separate polysemic extension. Sago is not the only place where *paitim* is used during food production as seen in example (24).

(23) *Em nau meri tru i go daunbilo long wara na em i wok long paitim rop i stap.*

3SG now woman real PM go down PREP water and 3SG PM PREP hit-TR rope PM stay

'Then the real woman went downstream and worked at beating the vines.'

This example is referring to a traditional technique in Melanesia that uses poisonous plants to fish. The process involves the pounding of the plants, in this case the vines, before putting the poison into the water (Rickard & Cox 1986: 479-482). Rickard and Cox describe the hitting part of the process by saying “A pole is then used to pound the mixture. A favorite technique of fishermen is to pound in tandem, rhythmically timing their upward and downward strokes. The pounding continues until the leaves have been macerated into a granular green mixture” (Rickard & Cox 1986: 480), which is what is shown in the first panel of figure 10.



Figure 10: The Making and Use of Fish Poison (Rickard & Cox 1986)

Both of these usage, sago and fishing, use *paitim* for a specialized sense of ‘hit’. They are not only hitting the plants, but they are in fact hitting the plants as part of a process of food preparation. Not only is the hitting involved in a process, but the hitting is the salient and most prominent action in the process of production. Through these traditional and cultural techniques, the polysemic extension of *paitim* arises as a separate and stable part of the network.

5.2.8 Happy Dogs Paitim Their Tails

Another extension of *paitim* that is not present in the dictionary data is the usage of *paitim* to mean that a dog is wagging its tail. This can be seen as a metonymy that is similar to the rhythmic branch of the polysemy. Wagging can be seen as the target event with a repeated hitting back and forth or oscillation being the source. It can be described as REPEATED MOVEMENT FOR MOTION EVENT which is target-in-source. *Paitim* as ‘wag’ can also be a metaphor. This would be understood as WAGGING IS REPEATED HITTING, where hitting is the source domain and wagging is the target. The wagging is thus metaphorically understood to be like repeated hitting because of its consistent

back and forth motion. In this associative structure, there is a mapping where human → animal, leg → tail, hitting → wagging. The extension from ‘hit’ to ‘wag’ could be even seen as a metaphonymy, which is when elements of metaphor and metonymy simultaneously interact. In this example and all of those that deal with this extension the similarity between the extension to ‘wag’ and the extension to ‘knock’, ‘clap’, and ‘drum’ is very strong and seem to be using the same type of repetitive extension. For that reason, the metonymy REPEATED MOVEMENT FOR MOTION EVENT works best for understanding the extension. An example of ‘hit’ to ‘wagging’ can be seen in example (25).

(24) *Dok i paitim tel bilong em i kam na givim bek purpur bilong meri ya.*

Dog PM hit-TR tail POSS 3SG PM come and give-TR skirt POSS woman really.

‘The dog wagged its tail and gave the skirt back to the woman.’

While this extension might seem more disconnected from the others in the network, it further emphasizes the idea of stretching form-meaning pairing through associative structures. A jump from ‘hit’ to ‘wag’ would seem impossible without the metonymy and it is that very metonymy that validates its place in the polysemy network.

5.2.9 *It’s Coming to an End so Don’t Paitim Me*

The final polysemic extension that was found in the corpus data for *paitim* was the metaphor ARGUMENT IS WAR. This metaphor does not extend from the prototypical meaning of *paitim* and instead stems from *paitim* ‘assault’. This is because they are not metaphorically hitting each other with words in the way that *pait long toktok* seemed to frame words as weapons with the structure of the phrases. Instead, the already metonymically extended *paitim* ‘assault’ goes through a metaphor, so that the assault aspects become verbal and loses the physicality, as already seen with *pait*. While this extension was quite rare for *pait*, it appeared multiple times for *paitim*, which was interesting considering that meaning never appeared in the dictionaries. An example of this metaphor can be seen in example (26).

(25) *Ol bikman long haus lain i paitim toktok long wanpela bikpela kibung.*

PL chief PREP house group PM fight-TR speak PREP one big meeting

‘The leaders of the clan house argued at a big meeting.’

Without *toktok* or *tok*, it may be more difficult to distinguish *paitim* ‘assault’ from *paitim* ‘argument’, but the argumentative sense is still recoverable from context. This supports the place of ARGUMENT IS WAR within the polysemy network of *paitim*.

5.2.10 Polysemy Network of *Paitim*

Considering both dictionary and corpus data, the polysemy network of *paitim* is quite rich. Starting at the prototypical sense of ‘violent hit’ which comes from *pait* through the metonymy COMPLEX EVENT FOR SUB-EVENT. ‘Violent hit’ can then be understood through many different types of blows as it broadened to incorporate sense like ‘beat’, ‘bash’, and ‘strike’, all of which do not necessarily have to retain the more violent aspects of the prototypical meaning. This gives *paitim* some flexibility in the level of harm and violent entailed. *Paitim* extended back out with a metonymy of SUB-EVENT FOR COMPLEX EVENT to make ‘assault’. This is not the same as *pait* ‘fight’, as *paitim* ‘assault’ does not involve mutual participation and instead showed one party damaging another. *Paitim* was also extended in a non-violent way towards rhythm and music. Specifically, to make *paitim* ‘drum’, ‘ring’, ‘drum’, and ‘clap’ there is an extension of REPEATED ACTIVITY FOR ACTION. While clapping was a part of the rhythmic senses, knocking was separate as there was a different function and metonymy, which was REPEATED ACTION FOR COMMUNICATIVE ACTIVITY. Knocking and hitting signal drums were specifically communicative and less musical.

While the ‘senseless’, ‘intoxication’, and ‘loss of control’, were present in Mihalic’s dictionary, they were not found in the corpus. Nevertheless, they provided interesting material for the polysemy network, such as a metonymy from *paitim* ‘violent hit’ to *paitim* ‘make senseless’ through EFFECT FOR CAUSE and then a further metonymy from *paitim* ‘make senseless’ to ‘intoxication’ through CAUSE FOR EFFECT. This grouping also provided interesting theories for a connection with the *pait* ‘bitter’ sense instead of the *pait* ‘fight’ through a CAUSE FOR EFFECT metonymy, even though the path from ‘violent hit’ to ‘intoxication’ is more likely. After ‘intoxication’ and ‘make senseless’ there is a metonymy from either of those sources towards ‘loss of control’ with EFFECT FOR CAUSE. And finally, within ‘loss of control’, *paitim* can once again extend to mean ‘sleepwalking’, ‘sleep talking’, and ‘menstruating’.

For the examples not found in the dictionaries, food production was found often in the corpus. This polysemy refers to the specialized process of food production where *paitim* ‘hit’ is the salient action in the processing of the sago plant and the poisonous plants which were used to fish. This metonymy was SALIENT ACTION FOR PROCESS. Additionally, the corpus found instances of *tail* co-occurring with *paitim* because *paitim* is used to mean ‘wagging’. This extension happens through what is most likely a metonymy of REPEATED MOVEMENT FOR MOTION EVENT, in a similar extension to the one that led to the musical terms. Finally, there was the metaphor ARGUMENT IS WAR which was the extension of *paitim* ‘assault’ to ‘argument’.

Just as with *pait*, a more accurate polysemy network diagram was created based off the dictionary and corpus data. It gives a fuller picture of the real usages happening to *paitim*.

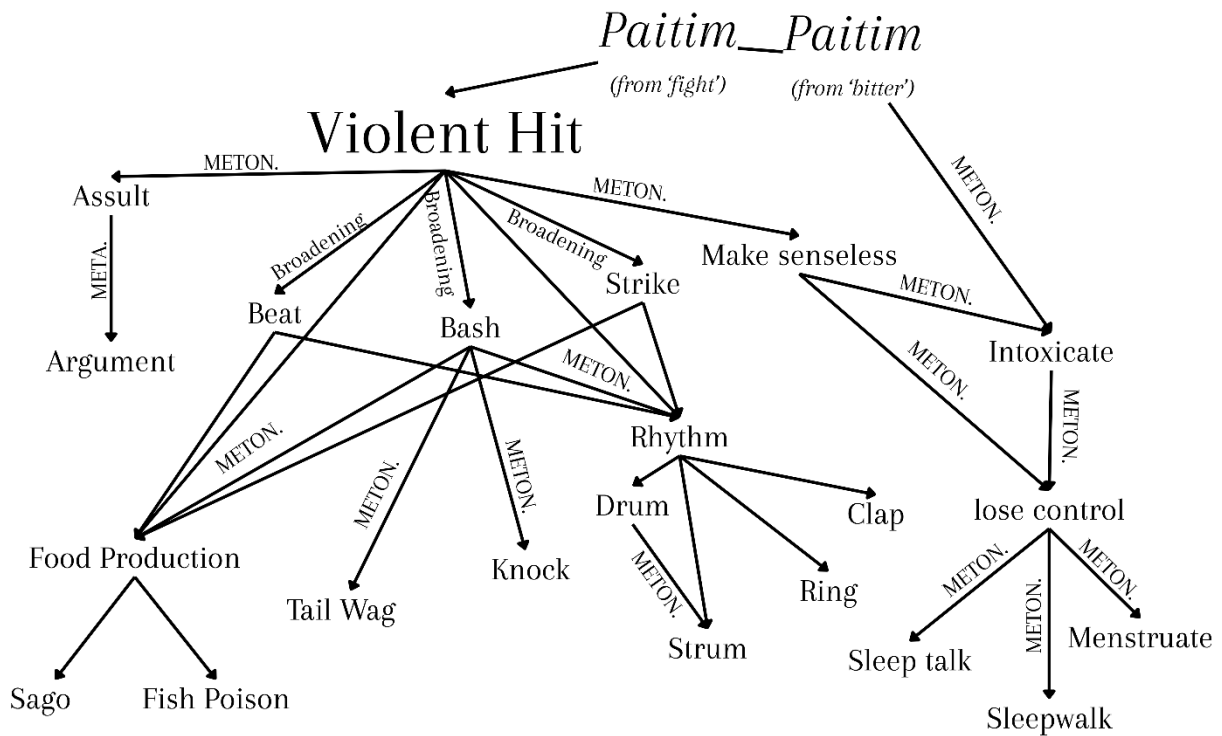


Figure 11: Polysemy of *Paitim* Based on Dictionary and Corpus Data

While this diagram is complex, it shows how significant the corpus data was in understanding the polysemy network of *paitim*. Especially in comparison with figure 10. This ultimately shows the interconnectivity between meanings and how they all grow from the prototypical meaning of ‘violent hit’. As seen with *pait*, these meanings are not merely a coincidence of form. Their senses

are related to one another and show that *paitim* is deeply polysemic with senses extending out to what would seem like unrelated semantic domains.

5.3 *Pait* and *Paitim*: Let's Wrap This Up

Even though *pait* and *paitim* were analyzed separately, the connection between the two terms has been emphasized throughout this chapter. For that reason, figure 12 shows the complete polysemy network of *pait* and *paitim* together. In the name of readability, the labels with the extensions were removed as a complete diagram for each of these terms exists in their respective sections.

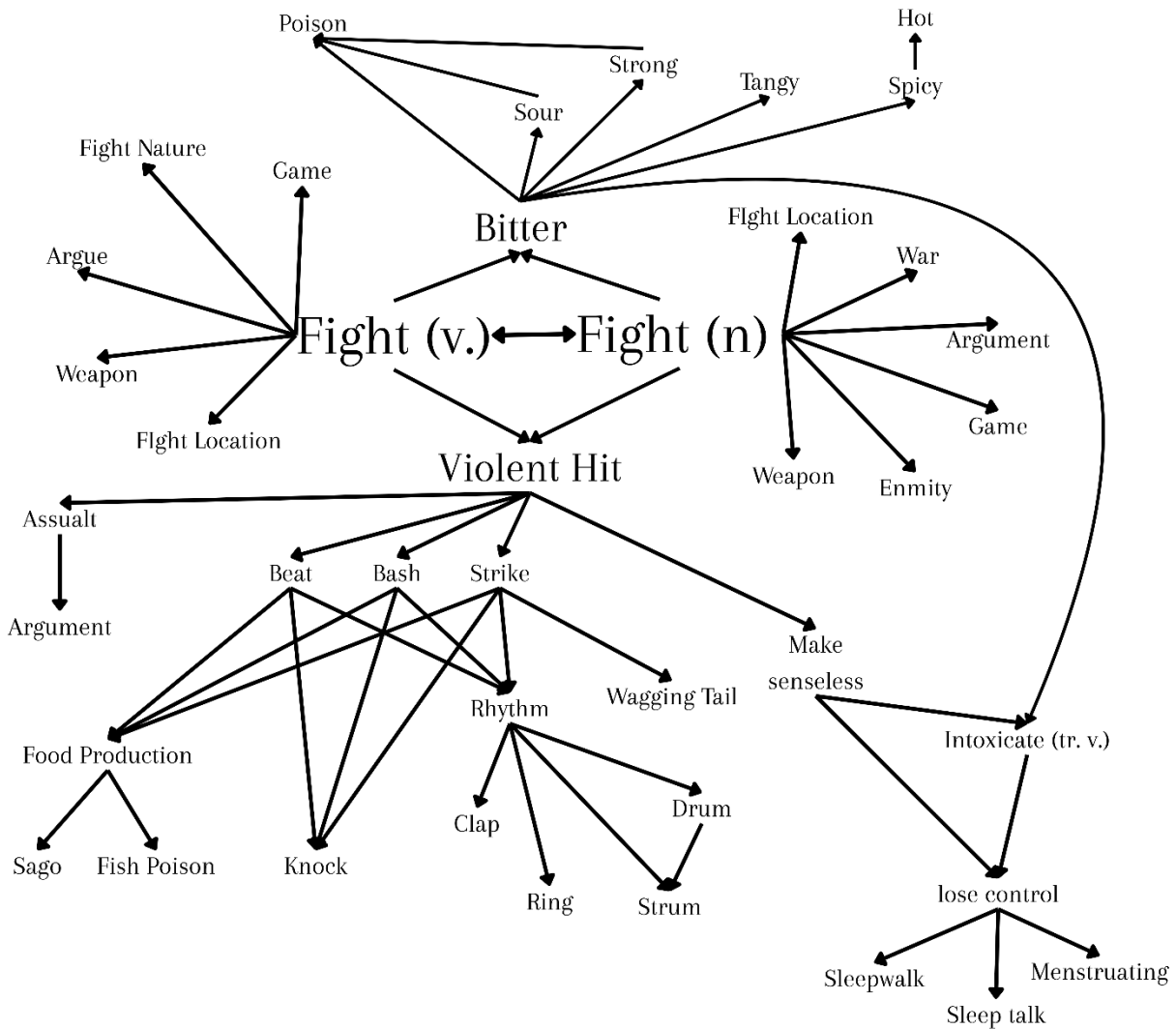


Figure 12: Polysemy Network of *Pait* and *Paitim*

6. Conclusion

One can draw a line straight from *pait* to *feohtan* in Old English but the effects of time on the form and meaning are clear. Especially for meaning as it has been shown in this thesis how *pait* might have entered Tok Pisin with a relatively stable and singular ‘fight’, but the meaning has not stayed restricted to its semantic domain. Instead *pait* has grown and expanded through associative structures like metonymy and metaphor which led to the creation of polysemy networks. This thesis aimed to observe the polysemy of war and violence vocabulary in Tok Pisin and chose *pait* and *paitim* as the reasonable scope for this study. Through the analysis of dictionary and corpus data, which reflects authentic usage patterns, it was seen that the polysemy networks in these terms are extensive. More specifically, it was seen that although many polysemic extensions stayed within the semantic domain of war and violence, it was not necessarily true for all. There were many instances where the meaning extended so far that a new semantic domain like flavour or music was reached.

By using CL approaches to study the polysemies, it became clear what was motivating the extensions. In both *pait* and *paitim*, there were metonymy, metaphor, and broadening, which linked meanings to each other through a network which could be traced all the way up to ‘fight’. Additionally, the etymological evidence contributed to the understanding of the polysemy in places where it was difficult to connect branches that seem almost homonymous, thus reaffirming Mühlhäusler’s claims towards the value of etymology in semantics of Tok Pisin. This study was also conducted on a corpus so that it could examine the real usage patterns of *pait* and *paitim* in order to get an accurate picture of all the polysemic extensions, even those that are not yet in the dictionaries. Through the corpus, 11 extensions that were not found in the dictionaries were identified and added to the networks.

This thesis contributed to two main bodies of research: Tok Pisin research and CL. Within Tok Pisin research, this thesis offers the first in depth analysis of any war or violence term. While there have been footnotes and mentions in earlier research, there has not been an extensive study on this semantic domain. Additionally, this thesis contributes to semantic and lexicographic research in Tok Pisin, while also providing a comprehensive summary of all the etymological research for *pait* and *paitim*. On the CL side, this thesis’s value lies in its contribution on the application of CL on pidgincreoles which is a small subfield within CL. For Both Tok Pisin and CL, this thesis adds to the even smaller body of literature on CL for Tok Pisin.

While this thesis identified and analyzed many polysemic extensions for *pait* and *paitim*, in order to grasp the most accurate picture of the polysemy, the entire data set must be analyzed, not just the co-occurrence patterns and not just the three examples for those patterns. The list of *pait* and *paitim* is almost 1000 concordances long in this corpus and thus it was an unmanageable amount for this study, but it would be necessary for future research. Additionally, a future direction for this study would be to add more war and violence vocabulary to understand how the domain extends as a whole.

This thesis has laid the groundwork for more research on this topic. Through the comprehensive analysis of *pait* and *paitim*, a better understanding of the polysemy in Tok Pisin was reached. While broad claims about the whole domain of war and violence cannot be concluded, this thesis has shown that *pait* and *paitim* in real usage patterns are highly polysemic and extend their meaning through associative structures that are explainable with cognitive linguistics.

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Appendix A

This appendix contains the annotated co-occurrence patterns found for *pait*. Basic information about the lexeme in question is in the form of an ID, the term itself, and an English translation of the word. Information about how to locate each of the examples is found with the story number, line number, and the sentence both in Tok Pisin and an English translation from Slone (2001a; 2001b). The annotations detail the polysemic extensions, the type of extension, the specific relationship, and also the semantic cluster which the use belongs to. This appendix is intended to provide the supporting data for the analysis of *pait* discussed in Chapter 5.

ID	Term	Translation	Story	Line	Left_context	Node	Right_context	Sentence translation	Polysemic_Extension_ extension_type	Specific_relation	Semantic Cluster
1a	kinogu	tribe name	584	36502	Tupela lain Gomia wantaim	Kinogu	i pait i go k jostu long raunwara	The two clans, Gomia and Kinogu, fought and approached this lake.	0		action
1b	kinogu	tribe name	584	36499	Wanpela taim bikpela pait i kamap namel long ol wanpisin long taim ol Lain	Kinogu	i pait wantaim ol Lain Gomia long dispela bus.	One time, a great fight came between the Kinogu and the Gomia clans in this forest	0		event
1c	kinogu	tribe name	584	36559	Dispela i save bringim moa pait i kamap bikos ol	Kinogu	i save i go stiliim suga na banana long gaden bilong ol Gomia.	his knowledge brought more fighting because the Kinogu often stole sugarcanes and bananas from the Gomia's gardens.	0		event
2a	birua	enemy	736	49221	Bautipma i wanpela strongpela man tru bilong pait wantaim ol	birua	bilong narapela ples.	Bautipma was very strong at fighting with the enemies from other villages.	0		action
2b	birua	enemy	657	43126	Taim ol	birua	i kam long pait, asde yet em i ranawe hait long bus.	the enemies would come to fight, he would have already run away into the forest.	0		action
2c	birua	enemy	253	9940	Tupela i bin i dai long pait wantaim	birua		Their parents had died in a fight with enemies.	0		event
3a	kros	an gr y	146	4459	Pasin bilong	kros	na pait na bel hat i stap.	This is a custom when people are angry and fight, this is why men hang themselves and die.	0		action
3b	kros	angry	365	16643	Dispela famili ol i save sindaun olgeta taim long haus bilong ol, na ol i no save	kros	o pait long narapela man o meri.	The family lived in their house, and they never fought or got angry with other men or women.	0		action
3c	kros	an gr y	958	64999	Bihainim dispela stori na tude i gat bikpela	kros	pait i stap namel long ol lain bilong man ya, na ol manki.	After this story, and today, there is a great enmity between men and boys.	1	METON	enmity
4a	strongpela	strong	736	49212	Bipo bipo long taim bilong tumbuna i gat wanpela	strongpela	strongpela man bilong pait long spia.	Long, long ago, in the time of the ancestors, there lived a man who excelled at fighting with spears.	0		action
4b	strongpela	strong	460	24013	Oi i kamap Tasol ol tumbuna bilong Maina Gol	strongpela	strongpela man bilong pait.	They became strong warriors.	0		action/event
4c	strongpela	strong	907	62502	Kama wanpisin i Taim masalai i kirap gen em i kisim spia bilong em na tupela wantaim i	strongpela	lain tru bilong pait.	However, the ancestors of Maina Gol Kama tribe were a very strong group of fighters	0		action/event
5a	kirapim	start	433	21996	Taim masalai i kirap gen em i kisim spia bilong em na tupela wantaim i	kirapim	bikpela pait tru.	When the masalai got up again, he took his spear and the two of them fought fiercely.	0		action

5b	kirapim	start	588	36900	O i	kirapim	pait gen na bihain sait bilang wara i go antap.	They began to fight again, and they went upriver.	0		action
5c	kirapim	start	462	24190	Tupela i toktok i go na tupela yet i bin	kirapim	draipela pait .	They talked and talked, then they had a big fight.	0		event
6a	kandere	relative	366	16727	Yu salim mi i go na mi lukim ol tupela	kandere	i pait i stap .	You sent me, and I went to see the two maternal relatives fighting.	0		action
6b	kandere	relative	366	16711	Long taim em i go kamap long ples we ol nois i wok long kamap long en, em i lukim tupela	kandere	bilang em i pait i stap .	When he arrived at the place where the noise was coming from, he saw his two maternal relatives fighting.	0		action
6c	kandere	relative	366	16702	Wanpela taim tupela	kandere	i pait long kia u l bilang we l paul.	One time, two maternal relatives were fighting over some wildfowl eggs.	0		action
7a	winim	win	1121	70307	Strongpela man tu na em	winim	pait na kilim tupela brata ya na olgeta lain long dispela ples ol i krai i go na em kirap ia nogat em tulait pinis.	He was a strong man too, so he won the fight and he killed the two brothers.	0		event
7b	winim	win	1205	72344	Na taim bilong pait em i save	winim	pait long bun bilang welman.	When he fought, he would win fights using the bones of the wild man.	0		action
7c	winim	win	935	63767	Olgeta de, em i save pait tasol long	winim	moa pawa na nem .	Every day, he would just fight and win more powers and renown.	0		action
8a	namel	between	791	54697	Ol i no save kros na pait	namel	long ol yet .	They never argued or fought among themselves	0		action
8b	namel	between	1199	72098	Na bikpela pait kamap	namel	long tupela .	A great fight arose between the two of them.	0		event
8c	namel	between	768	52591	Em nau bikpela pait tru i bruk	namel	long tupela pren ya .	A tremendous fight broke out between the two friends.	0		event
9a	strong	strong	896	61812	Menang i pait	strong	long kilim indai dispela paia tasol nogat.	Menang fought the fire strongly, trying to extinguish it.	1	META	A STRUGGLE IS A FIGHT
9b	strong	strong	731	48822	Ol i pait i go na ol liklik pisin bilong kunai i	strong	na ol i winim pait .	They fought and fought. The little birds of the grass lands were stronger and won the battle.	0		action
9c	strong	strong	819	57052	Tarangu em wanpela pait	strong	wantaim pik i go na pik i ranawe .	The poor brother fought hard with the pig for a while, then the pig ran away.	0		action
10a	wantaim	together	657	43123	Dok i bikpela brata bikos i man bilong pait	wantaim	ol birua bilang tupela na tu , em i man bilang he fought with their enemies . and killim ol kain kain abus because he also killed various kinds na karim i go long of wild game that he brought to the haus .	Dog was the bigger brother because he fought with their enemies. and killim ol kain kain abus because he also killed various kinds na karim i go long of wild game that he brought to the haus.	0		action

10b	wantaim	together	995	66749	Ol i pait	em i go na wampela liklik bun nating dok i kirap fasol na kalap i go insait long as bilong Makrumbi. arapela birua. Dok i save go pas long ol olsem komanda [bikman].	0		action
10c	wantaim	together	1070	69523	Long taim bilong pait	wantaim		1	SUB-EVENT FOR COMPLEX EVENT
11a	lain	group/clan	99	2174	Man i ron i go kamap long ples bilong meri na lukim bikpela pait i kirap namei long	lain	Man i ron i go kamap long ples bilong meri na lukim bikpela pait i kirap namei long	0	event
11b	lain	group/c lan	601	38150	Pait i bruk na ol	lain	Pait i bruk na ol	0	event
11c	lain	group/clan	790	54679	Tupela pait i go na ol	lain	Tupela pait i go na ol	0	action
12a	stat	start	337	14784	Em i kam daun na	stat	Em i kam daun na	0	action
12b	stat	start	662	43625	Em i tok olsem na i ran go holim Waive na stat tupela i	stat	Em i tok olsem na i ran go holim Waive na stat tupela i	0	action
12c	stat	start	1066	69412	Hariap tru na em i kalap i go daun long wara na tupela i	stat	Hariap tru na em i kalap i go daun long wara na tupela i	0	action
13a	spia	spear	905	62447	Em i planim dispela yam long gaden pinis na sanapim ol	spia	Em i planim dispela yam long gaden pinis na sanapim ol	1	INSTRUMENT FOR PURPOSE
13b	spia	spear	200	7369	Na birua man i kisim samting bilong pait olsem	spia,	Na birua man i kisim samting bilong pait olsem	1	INSTRUMENT FOR PURPOSE
13c	spia	spear	589	37017	Tupela i pait sutim	spia	Tupela i pait sutim	0	event
14a	inap	compare /enough	1176	71370	Tupela pait i go i inap	inap	Tupela pait i go i inap	0	action

19a	meri	woman	79	1292	Bihain long pait nambawan	meri	i salim pikimini i go kisim brata bilong em i kam na kilim wanpela pik.	After the fight, the first wife sent her child to go get her brother and to get a pig to slaughter.	0		action/event
19b	meri	woman	1222	73124	Dispela em long mekim em i strong bai em i ken pait wantaim yangpela	meri	ya na kiim em na kaikai.	This made ber strong so that she could fight with the girl, and tben kill and eat her.	0		action
19c	meri	woman	852	59488	Long bikmoning tru, tupela i kirap na wokabaut i go na kamap wantaim tingting bilong traim pait wantaim masalai	meri	ya.	One night, the two brothers, Habueng and Moklovang, argued back and forth, then they came together in thinking of trying to fight witt the masalai woman.	0		action
20a	em	them	741	49778	Em i kros na bihain	em	i pait wantaim dispela dewel man.	He was angry, then later he fought with the ghost man.	0		action
20b	em	them	899	62002	Em i kirap tasol	em	i laik pait wantaim papa ya.	The ghost just tried to fight with the father.	0		action
20c	em	them	231	8927	Sikau i lukim ol man i go kamap, man sikau	em	samsam nambaut long pait.	The marsupial saw the men approaching. The marsupial was prancing belligerently (samsam) for a fight.	0		event
21a	stap	stay	366	16703	Tupela i	stap	long pait long bikbus tru.	They fought in the very deep forest	0		action
21b	stap	stay	704	46643	Longpela taim ol Waria i no pait ol i	stap	gut tasol bikos long marit bilong dispela tupela manmeri.	For a long time, the people of Waria did not fight. They lived well because of this marriage.	0		action
21c	stap	stay	962	65124	Wantu Sikau i go kamap long as bilong dispela pikus, na lukim pik i wok long pait wantaim ol dok i	stap.		Kangaroo arrived at the base of the fig tree quickly, then saw the pig fighting with the dogs.	0		action
22a	mi	me	148	4536	Sori nau baga ya i kaikaim tit, `Bilong wanem	mi	go pait?	The poor guy gnashed his teeth, "Why did I go to the battle?"	1	METON	location
22b	mi	me	588	36859	Aronata i singaut, `Husat man i skrapim	mi	long pait nau?	Aronata called out, "Who's the man that's irritating me for a fight?"	0		event
22c	mi	me	89	1717	Sikau i kirap na i poinim [makim long pinga] long ol pipia na graun na i mi tok, `Mi kaikai ol dispela samting long mekim	mi	strong long pait.	Kangaroo pointed to all of the garbage on the ground and said, "I ate all that sort of thing and it made me strong enough to fight	0		action

23a	pikinini	kid	986	66307	Lapun i kam ausait na lukim masalai i pait wantaim tupela	pikinini	bilong em na em i kros olgeta.	The old woman' went outside. She saw the masalai fighting with her two sons and she was furious.	0		action
23b	pikinini	kid	1114	70039	Mama ya i save mekim olsem tasol i go inap tupela pikinini ya i go bikpela na mama yet i wok long redim tupela	pikinini	long pait wantaim masalai man ya.	The mother just did this until the boys became big. Then the mother herself prepared the boys to fight with the masalai man.	0		action
23c	pikinini	kid	360	16389	Nau welman i singaut,	Pikinini,	yu laik pait orait yu wet.	The wild man called out, "Child, do you want to fight? Just wait!"	0		action
24a	man	man	818	56972	I no longtaim ol	pait man	na banisim haus bilong em.	Before long, the warriors of the big village arrived and surrounded his house.	0		action/event
24b	man	man	935	63769	Olgeta de em wanpela bai i go pait wantaim ol	pait man	bilong ol ples arere long nambis.	Every day, he alone would go to fight with the warriors of the villages by the beach.	0		action/event
24c	man	man	1122	70414	Kwikitaim ol	pait man	bilong ples i holimpasim dispela masalai man na kilim em.	Quickly, the village warriors grabbed the masalai man and killed him.	0		action/event
25a	olsem	like this	589	36982	Em i tokim, ' Liklik sua mi tokim yu nau bai yu Ol tupela meri ya i	pait olsem man.		He said, "Little sister, I told you that you would fight like a man	0		action
25b	olsem	like this	735	49052	save stap gut tru na ol Liklik brata i kisim dispela wara na i laik dring tasol wara ya i no olsem ol arapela wara bikos em i	pait olsem ol arapela	marit.	The two women lived well together. They never fought as with other marriages .	0		action
25c	olsem	like this	859	59969		pait olsem solwara.		The little brother took this water and drank it. It was not like other water because it was tangy like saltwater.	1	META	NEGATIVE TASTE IS A FIGHT bad taste
26a	nau	now	648	42419	Na ol i laik kirapim	pait nau	wantaim dispela man bilong bikpela sista ya.	They wanted to start a fight with the big sister's husband.	0		event
26b	nau	now	148	4532	Man i ting long i go	pait, nau	em i go pinis long pait na em i kisim wanpela spia stret long skru bilong lek bilong em.	The man thought about going to the battle, then he went to the battle and was speared directly through his knee.	0	METON	PLACE FOR ACTION location
26c	nau	now	588	36859	Aronta i singaut, ' Husat man i skrapim mi long	pait nau?		Aronta called out, "Who's the man that's irritating me for a fight?"	0		event
27a	tru	good	768	52591	Em nau bikpela	pait tru	i bruk namel long tupela pren ya.	A tremendous fight broke out between the two friends.	0		event
27b	tru	good	193	7073	Long taim bipo tru i no gat	pait tru	long Hailians.	Long ago, there was no fighting in the Highlands.	0		event

27c	tru	good	247	9697	Na tupela i kism spia na akis na tupela i pait tru .	0	They took spears and axes and did battle.		event
28a	gen	again	986	66314	Masalai i kirap tokim tupela olsem ol bai stap long pait pastaim pait gen . bikos em i laik kiim dispela pisin na ol bai kaikai na bihain ol i ken	0	The masalai told the two of them that they would stop fighting because first the masalai wanted to kill the bird. They would eat the bird, then later they could fight again.		action
28b	gen	again	708	47114	Ol pipeli stap long ples i go na ol i kism toksave gen olsem dispela ol birua bai kam bek	0	They stayed in the village for a while, then they again received a message that the enemies would return to fight with them.		action
28c	gen	again	64	604	Olsem tasol taim mipela i harim klaut i pairap mipela i save em tupela brata i pait gen .	0	So when we hear thunder, we know that it is the two brothers fighting again.		action
29a	nogut	bad	320	13540	Man, lip brus i tru na boi ya em i spet pait nogut nabaut.	1	The tobacco leaves were extremely bitter, so the boy spit them out.	NEGATIVE TASTE IS A FIGHT META	bad taste
29b	nogut	bad	320	13543	Lilik boi ya i kros nogut tru na em i tok, pait nogut tru .	1	The little boy was irate and said, "This soup is dreadfully bitter."	NEGATIVE TASTE IS A FIGHT META	bad taste
29c	nogut	bad	434	22076	Em i tok olsem na tupela i pait nogut tru .	0	After he said this, they fought terribly.		action
30a	tu	two	323	13687	Dispela man em i man bilong pait tu ya .	0	One time, he fought with all of the men of the village.		action
30b	tu	two	320	13550	Dispela kapuli pait tu , long wanem, wara bilong ol lip brus i go insait long ol pinis.	1	This is bitter too because the juice from the leaves went inside it."	NEGATIVE TASTE IS A FIGHT META	bad taste
30c	tu	two	504	27677	Binen i skulim pikinini man long pasin bilong painim bilong painim pait tu . kaikai na abus long bus na pasin bilong	0	The bee taught the boy how to look for food, how to hunt for wild game in the forest, and how to fight.		action
31a	stret	straight	745	50290	Man, bikpela pait stret i kirap namel long lain bilong koki na trausel.	0	Oh my, a great battle began between the cockatoos and the turtles.		event
31b	stret	straight	790	54674	Bel bilong em i paia olgeta na em i laik pait stret .	0	He was bumming up inside and he wanted to fight badly		action
31c	stret	straight	847	59225	Tupela i kros i go na i laik pait stret .	0	Afterwards, they arrived. They argued and argued, then they were about to fight.		action

Appendix B

This appendix contains the annotated co-occurrence patterns found for *paitim*. Basic information about the lexeme in question is in the form of an ID, the term itself, and an English translation of the word. Information about how to locate each of the examples is found with the story number, line number, and the sentence both in Tok Pisin and an English translation from Slone (2001a; 2001b). The annotations detail the polysemic extensions, the type of extension, the specific relationship, and also the semantic cluster which the use belongs to. This appendix is intended to provide the supporting data for the analysis of *paitim* discussed in Chapter 5.

ID	Term	Translation	Story	Line	Left_context	Node	Right_context	Sentence translation	Polysyn- mic_ext ension	Extensio n_type	Specific_relation	Semantic Cluster
1a	garamut	drum	987	66344	Wanpela taim ol i stap na bikman bilong ples i paitim	garamut	na olgeta lain i go bung.	One time, the leader of the village beat the signal drum and everyone gathered.	1	METON	REPEATED ACTIVITY FOR ACTION	music
1b	garamut	drum	376	17362	Olsem na nau ol Madang [Provins?] i save paitim	garamut	na ol Tami i no tumas.	So now, the people of [the mainland of] Madang [Province?] often hit the signal drum, and the people of Tami do not do so very much.	1	METON	REPEATED ACTIVITY FOR ACTION	music
1c	garamut	drum	995	66734	Na em i paitim	garamut	na salim toktok i go i kam long olgeta dok long dispela ples	The dog beat the signal drum and sent a message here and there for all of the dogs of the village.	1	METON	REPEATED ACTIVITY FOR ACTION	music
2a	kundu	drum	261	10374	Man Digidagan i givim pinis na em i kirap na paitim	kundu	na singsing na i go.	Digidagan made an offer to her, then he got up, hit the hand drum, sang and departed.	1	METON	REPEATED ACTIVITY FOR ACTION	music
2b	kundu	drum	707	47024	Ol i dripi i go inap ol i kamap long Ples Moriuri we wara i kundu save boil Iku i paitim	kundu	na em i hatim tru singsing:	They drifted until they arrived at Moriuri Village where the water swirled. Iku beat the hand drum and sang:	1	METON	REPEATED ACTIVITY FOR ACTION	music
2c	kundu	drum	766	52385	Ol i go na wok long paitim	kundu	na winim mambu i stap insait long haus tamberan.	They beat the hand drums and blew the flutes inside the spirit house.	1	METON	REPEATED ACTIVITY FOR ACTION	music
3a	stik	stick	157	5036	Na em i kisim	stik	na paitim dok nogut tru.	He took the stick and beat the dog badly.	1	METON	SUB-EVENT FOR COMPLEX EVENT	assault
3b	stik	stick	503	27584	Tupela i karim tu tupela	stik	bilong paitim garamut.	The men took the two sticks for beating the drum and bashed the birds.	1	METON	REPEATED ACTIVITY FOR ACTION	music
3c	stik	stick	216	8170	Orait em paitim wara long	stik	kanda bilong en, orait wara i go i go nabaut nabaut	He hit the water with his rattan stick and the water flew about.	0			hit
4a	saksak	sago	838	58514	Mitupela go paitim	saksak	na kisim i kam tanim na kaikai tu o nogat?	Let's go beat some sago, then turn it and eat it too, OK?	1	METON	SALIENT ACTION FOR PROCESS	food processing
4b	saksak	sago	412	20023	Long taim tupela marit i wok saksak long gaden o paitim	saksak		when the married couple worked in the garden or made sago.	1	METON	SALIENT ACTION FOR PROCESS	food processing
4c	saksak	sago	226	8646	Long dispela tupela i pasim tok pinis, na long moning long narapela de, tupela i go wantaim bilong katim saksak saksak pinis, na tupela i rausim bun bilong saksak, na man bilong em i paitim	saksak	i stap long akis tumbuna.	The next day, they went together to cut a sago palm. They removed the spines from the trunk of the sago palm and the man struck the tree with a traditional [stone] axe.	1	METON	SALIENT ACTION FOR PROCESS	food processing
5a	nogut	bad	228	8749	Tasol sikau ya i kisim wanpela dral kokonas na paitim	nogut	tru dispela man na em i pundaun.	The marsupial took one big coconut and hit this man badly, knocking him down.	0			hit
5b	nogut	bad	215	8082	Na tupela i kros	nogut	na i paitim dispela lapun meri na kilim em i dai na ol [brukim] em liklik.	The brothers were furious and beat the old woman to death, breaking her into little pieces.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault

5c	nogut	bad	357	16173	Papa bilong pikimini i harim olsem pikimini bilong i dai em nogut tu i kirap na patim dok	tru.	The baby's father heard that the baby was dead, and he too hit the dog terribly	0		hit	
6a	uyae	Person	755	51257	Uyae	i patim het bilong Karo i go tasol Karo i no wari long dispela.	Uyae kept beating Karo's head, but Karo did not care about this.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
6b	uyae	Person	755	51258	Uyae.	Em i holimpasim Aputa yet long wanem em i tingim olsem sapos em i lusim Aputa na laik patim	He kept holding onto Aputa because he thought that if he let go of Aputa so that he could beat Uyae, Aputa would take an arrow and shoot him.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
6c	uyae	Person	755	51201	I no longtaim em i apim	Uyae	Before long, he lifted up Uyae and beat her terribly.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
7a	baundo	Person	512	28633	Em i belhat tu, bikos	Baundo	She was angry because Baundo beat her all of the time and she was tired of it.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
7b	baundo	Person	512	28614	Long wanem	Baundo	Baundo was often angry and beat poor Loime all of the time.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
7c	baundo	Person	512	28840		Baundo	Baundo never hit his wife again.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
8a	toktok	talk	852	59487	Long wanpela nait nau, tupela brata ya Habueng na Mokloving i patim	toktok	One night, the two brothers, Habueng and Mokloving, argued back and forth, then they came together in thinking of trying to fight with the masalai woman.	1	META	ARGUMENT IS WAR	verbal
8b	toktok	talk	875	60717	Dispela em tupela marit ya i wok long kros na patim	toktok	This is the married couple scolding and arguing back and forth in their new home.	1	META	ARGUMENT IS WAR	verbal
8c	toktok	talk	772	52968	Ol bikman long haus lain i patim	toktok	The leaders of the clan house argued at a big meeting.	1	META	ARGUMENT IS WAR	verbal
9a	ston	stone	524	30241	Long moning lapun i patim	ston	In the morning, the old man hit the stone and the door opened again.	0		hit	
9b	ston	stone	524	30238	Lapun man i patim	ston	The old man hit the boulder with a stick then the door of the stone opened.	0		hit	
9c	ston	stone	441	22470	Na man ya i patim gen na	ston	The man hit the stone again and it closed tightly.	0		hit	
10a	krosim	told off	72	985	Ol i	krosim	They cursed him and beat him up.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
10b	krosim	told off	697	46109	Em i save olsem long taim papa bilong em I kam kama long haus na lukim olsem bai em i	krosim	He knew that when his father came home and saw it, he would get angry at him and beat him too	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
10c	krosim	told off	928	63548	Em i tokim Kupuni olsem, 'Yu ken	krosim	She told Kupuni, "You can scold me or beat me, but you can't call the name of my father."	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
11a	kros	a ngr y	820	57145	Em	kros	He got angry and beat Ollimill very badly.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault

11b	kros	angry	427	21239	Sapos yu gat	kros	long mi, yu mas patitim mi tasol.	If you become angry with me, you must just hit me.	0		hit	
11c	kros	a ngr y	703	46624	Long taim oli	kros	man ya i save patitim meri na tok bilas long em.	When they fought, the man would beat the woman and ridicule her.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
12a	tel	tail	1215	72869	Na em i bin patitim	tel	bilong yu wantaim wanpela bikpela hap sap mambu.	He hit your tail with a big, sharp piece of bamboo.	0		hit	
12b	tel	tail	325	13849	Dok i patitim	tel	bilong em i kam na givim bek purpur bilong meri ya.	The dog wagged its tail and gave the skirt back to the woman.	1	METON	REPEATED MOVEMENT FOR MOTION EVENT	wag
12c	tel	tail	696	46033	i ya i go kama nau tarangu dok i patitim	tel	bilong en.	The man went there and the poor dog wagged its tail.	1	METON	REPEATED MOVEMENT FOR MOTION EVENT	wag
13a	tarangu	unfort unate	537	31775	Na papa wantaim pikinini i patitim	tarangu	lapun mama ya.	He and his father beat the poor old mother.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
13b	tarangu	unfortunate	709	47231	Tupela i belhat nogut tru na kirap patitim	tarangu	Mikaekapo, na tokim em long stap inap long taim em i painim Lalafaremore gen.	The parents were furious, so they beat poor Mikaekapo. They told him to stay until he found Lalafaremore.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
13c	tarangu	unfort unate	631	40714	Em i save patitim meri ya oltaim na	tarangu	meri i lusim skin olgeta.	He always beat her, and the poor woman lost her appearance.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
14a	dua	door	911	62648	Em i kama long ples na go stret long haus bilong Wangrukai long nait, na i patitim	dua	bilong haus i stap.	He arrived at the village and went directly to Wangrukai's house at night, and then he beat upon the house door.	1	METON	REPEATED ACTION FOR ACTIVITY	knocking
14b	dua	door	553	33480	Tewel man ya i patitim	dua	na askim ol man sapos em inap long go insait long haus.	The ghost man knocked on the door and asked the men whether he could go inside the house.	1	METON	REPEATED ACTION FOR ACTIVITY	knocking
14c	dua	door	771	52896	Na em i putim meri ya i go daun long graun na em i go patitim	dua	bilong haus.	It put her down on the ground, then she went and knocked on the house door.	1	METON	REPEATED ACTION FOR ACTIVITY	knocking
15a	susu	breast	522	30008	Long dirman masalai i tokim tupela olsem em tasol i bin tanim olsem brata bilong ol na patitim yangpela meri long	susu	bilong em long stik.	In the dream, the masalai had told them that he himself had appeared as the big brother and hit the girl on her breast with the stick.	0		hit	
15b	susu	breast	803	55729	Em kisis wanpela pikinini diwai na sut i go patitim	susu	bilong Ipali.	He took a tree fruit and shot it down at Ipali's breast.	0		hit	
15c	susu	breast	743	50036	Bihain em tromoi i go na patitim stret	susu	bilong Pepa.	He threw it and hit Pepa's breast.	0		hit	
16a	skru	joint	727	48451	Masalai i kisis ston tamiok bilong em na patitim	skru	bilong dispela man.	The masalai took her stone axe and beat the man's knees.	0		hit	
16b	skru	joint	537	31723	Em i patitim kundu brukim	skru	lindaun kirap gen na askim mama bilong em gen, Lukim meri bilong mi i tukluk long stail bilong mi long singsing tu o no gat?	He struck his hand drum, bent his knees, lied down, and arose again. He asked his mother again, "My wife, isn't my singing and dancing stylish?"	1	METON	REPEATED ACTION FOR ACTIVITY	music
16c	skru	joint	537	31742	Em i patitim kundu brukim	skru	lindaun na kirap gen.	He struck his hand drum, bent his knees, lied down, and arose again.	1	METON	REPEATED ACTION FOR ACTIVITY	music

17a	ka map	ar rived	818	56994	Man ya i	kamap	klostu na em paitim em long kokonas.	The man approached, then he hit him with the coconut	0		hit	
17b	kamap	arrived	612	39101	Long namba tu de gen papa i go	kamap	long dispela hap na paitim gen as bilong diwai.	The second day, the father again went to this place and again struck the base of the tree.	0		hit	
17c	ka map	ar rived	492	26518	Taim liklik sista i	kamap	Manga i paitim multi long skin bilong em na singaut, `Yu bilong mi pinis,`	When the little sister surfaced, Manga hit her body with the citrus and called out. "You're mine."	0		hit	
18a	em	them	442	22587	Taim	em	i paitim bel bilong em namba 12 taim, wampela naispela yangpela meri i kam ausait.	When he hit his belly for the twelfth time, a beautiful young woman came out.	0		hit	
18b	em	them	1029	68207	Gho i pret long Ali i paitim em na	em	i go antap liklik moa na lek na han bilong em i dai olgeta na em i pundaun i go daun long graun.	Gho was afraid of Ali beating him, so he went a little higher, then his arms and legs went completely dead and he fell down to the ground.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
18c	em	them	557	33956	Oi i lukim liklik hap rop em i karim tu na oi dai stret long lap na sampela bilong oi i spetim	em	na paitim em na sista bilong em.	They saw the piece of string that he was carrying and they died laughing. Some of them spat on him, and beat him and his sister.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
19a	oltaim	always	704	46647	Wampela taim em i paitim meri na meri i kirap ranawe i go bek long na tokim ol olesem man ya i save paitim em	oltaim	na em i les na ranawe i kam bek.	She told them that her husband always beat her, so she grew tired of it and fled back to them.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
19b	oltaim	always	767	52445	Oi kandere na susa na brata bilong oi i save les long oi na oltaim. paitim ol	oltaim		kin and their sister and brother had tired of them, and they always beat them. They often spat upon them too.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
19c	oltaim	always	703	46631	Orait wantaim yu tasol yu save paitim mi na tok bilas	oltaim.		I live well with you, but you always beat and ridicule me.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
20a	kaikai	food	346	15329	Oi i stap	kaikai	na oi i paitim tok long go painim abus long kam abusim taro.	While they were eating, they argued about going to hunt wild game to mix with the taros.	1	METON	SALIENT ACTION FOR PROCESS	food processing
20b	kaikai	food	292	11956	Na Kakaruk i go sindaun long bet na	kaikai	buai, singsing na paitim kundui stap.	Chicken sat on the seat, chewing betel nuts and peppers, while singing and hitting a hand drum.	1	METON	REPEATED ACTION FOR ACTIVITY	music
20c	kaikai	food	697	46150	Em yu dispela samting nogut tasol i save stitil ol	kaikai	na papa i save paitim mi nating. me.	So you're the bad one that stole the food, causing my papato beat me.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
21a	as	ass	735	49151	Orait oi i	paitim as	bilong diwai tripela taim na lata bilong haus i kam daun na oi i go antap.	She told him that if he returned again, he must beat the base of the tree three times, then she would lower the ladder.	0		hit	
21b	as	ass	612	39096	Em i go kamap long dispela diwai nau na em i kirap kisim wampela hap diwai na em i	paitim as	bilong dispela bikpela diwai.	She saw that the base of the tree was completely clean from where her husband had beaten the base of the tree.	0		hit	

21c	as	715	47522	Lek i kam antap olgeta na	paitim as bilong em.	His legs went up so far that they hit his buttocks.	0		hit
22a	het	1205	72335	Em	paitim bilong em long wanpela ston het	He banged his head directly upon a stone	0		hit
22b	het	142	4229	Na taim em i lukluk i go antap long diwai tupela i tromoim bun i go daun na	paitim bilong meri. het paitim	When she saw them in the tree, they threw bones down and hit her head.	0		hit
22c	het	796	55150	Em i pu(n)daun long graun na	het bilong em strong tru. paitim	He fell to the ground and knocked his head very hard.	0		hit
23a	stret	845	59113	Em [k]ros olgeta na laik	stret tupela brata. paitim	He was furious and wanted to pummel the brothers.	1	METON	COMPLEX EVENT FOR SUB-EVENT
23b	stret	444	22690	Namba tu taim em i	stret wanpela bilong tupela na tupela i lukim skin buai i pundaun klostu long tupela.	He removed the peels of the betel nuts and pelted them with the peels.	0		hit
23c	stret	104	2358	Kapul i kisim wanpela pikinini bilong diwai na i makim gut susu bilong Paiyali na	paitim susu bilong em. stret	The marsupial took a tree fruit, aimed it at Paiyali's breasts and threw it straight at them.	0		hit
24a	liklik	654	42895	Em i belhat na i	paitim brata bilong em. liklik	He was angry and beat his little brother.	1	METON	COMPLEX EVENT FOR SUB-EVENT
24b	liklik	703	46573	Em i kirap kisim kanda na	paitim sista bilong em pinis orait em i kisim rop i gat nil na em i pasim sista bilong em long pos bilong haus na lairim em i stap.	She took a rattan and beat her little sister; then she took [another] thorny vine, tied her sister to the house post and left her there.	1	METON	COMPLEX EVENT FOR SUB-EVENT
24c	liklik	122	3251	Tasol meri i bekim tok i spik, 'Maski, Mukmak baimi holim paia tasol long lukim rot na mi go long wanem nogut ol arapela pikinini bilong ol man long ples Wan i	paitim pikinini bilong mi. liklik	But the woman said, "Never mind that Mukmak, I'll hold a torch to see the trail because it would be bad if the other men's children beat up my little children at Wan."	1	METON	COMPLEX EVENT FOR SUB-EVENT
25a	man	64	560	Sotpela strongpela man i	paitim man i gat longpela gras na em man i gat longpela gras i tok, 'Pinis, inap pinis, brata bilong mi!	The short, strong man fought the longhaired man and the longhaired man said, "Stop! Enough! My brother!	1	METON	COMPLEX EVENT FOR SUB-EVENT
25b	man	551	33381	Dispela tok, sail-kusi, i min olsem: ' Bai yu no gat strong long paif, wokim gaden,	paitim man o mekim olgeta samting.	This phrase, sail-kusi, means, "You won't have the strength to fight, make gardens, fight men, or do other things.	1	METON	COMPLEX EVENT FOR SUB-EVENT
25c	man	349	15543	Meri ya i wok long	paitim man tasol baigla ya i holim pasim em gut tru.	The woman tried to fight the man, but the good-for-nothing held her too tightly.	1	METON	COMPLEX EVENT FOR SUB-EVENT
26a	rop	581	36227	Em nau meri tru i go daumbilo long wara na em i wok long	paitim rop i stap.	Then the real woman went downstream and worked at beating the vines.	1	METON	SALIENT ACTION FOR PROCESS

26b	rop	rope	581	36192	Na wanpela bilong ol i tokim poro bilong em, Tumora, bai mitupela i kirap bikmoning tru na go	long wara.	1	METON	SALIENT ACTION FOR PROCESS	food processing
26c	rop	rope	637	41159	Wanpela de ol yangpela meri bilong Ples Maugilam i bung wantaim na ol i wok long pasim tok long go slip arere long wara na	poisin bilong kilim ol pis.	1	METON	SALIENT ACTION FOR PROCESS	food processing
27a	tok	word	346	15362	Ol arapela 6-pela ya i	long holim dispela meri.	1	META	ARGUMENT IS WAR	verbal
27b	tok	word	1043	68678	Rurun i kirap long bet na wokim smok bilong em na kam lukim Tau na ol i	posisen i stap.	1	META	ARGUMENT IS WAR	verbal
27c	tok	word	354	15896	Em i mekim olsem tasol i go i go na wanpela de ol poroman bilong em i bung wantaim long haus boi bilong ol na		1	META	ARGUMENT IS WAR	verbal
28a	wara	water	175	6112	Na em i kisim stik na i	i bruk i go hap hap, na tupela i go long ples bilong muruk.	0			hit
28b	wara	water	216	8170	Orait em	long stik kanda bilong en, orait wara i pulap i stap long en.	0			hit
28c	wara	water	508a	28112	Masalai i	na wara i op na tupela i go daun.	0			hit
29a	bel	belly	443	22582	Em i kirap na	bilong em na i tok, 'Wan', na wanpela pikinini man i kam ausait.	0			hit
29b	bel	belly	443	22620	Orait masalai ya i tokim em, na em i	bilong em 11-pela taim na ol pikinini i kam ausait.	0			hit
29c	bel	belly	443	22586	Em i	bilong em 11-pela taim na ol pikinini bilong em i kam ausait orait em i gat wanpela moa taim long paitim.	0			hit
30a	diwai	tree	612	39112	Orait em i kisim hap stik i stap long as bilong diwai na em i	strong.	0			hit
30b	diwai	tree	735	49102	Em i bihainim bus i go kamap long as bilong diwai na	tripela taim.	0			hit

30c	diwai	tree	735	49169	Man ya i wokabaut i go kamap long as bilong diwai na em i	paitim diwai.	The man walked and walked, then he arrived at the base of the tree.	0		hit	
31a	lek	leg	677	44659	I go i go nau na wanpela hap pipia pataiwut i kalap i kam na	paitim lek bilong em.	He beat the tree. After a while, a piece of firewood debris jumped up and struck his leg.	0		hit	
31b	lek	leg	314	13225	Yu tokim meri bilong yu long kisim hap skin bilong suga na	paitim lek bilong mi na bai mi dai.	Tell your wife that you can take a piece of the outside of a sugarcane and strike my leg with it, then I'll die.	0		hit	
31c	lek	leg	394	18842	Tupela umben yet na tewel bilong tewelmeri ya i	paitim lek bilong wanpela meri na em i tok, 'Bikpela pis i stap long hia.'	The two women continued to fish, and the shadow of the ghost woman hit the leg of one of the women. The woman said, "There's a big fish here."	0		hit	
32a	tewel	ghost	153	4766	Tasol meri tru i no isi long	paitim tewel meri.	However, the real woman was not gentle and she fought back.	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
32b	tewel	ghost	495	26824	Taim meri sutim i go daun na	paitim tewel blut i sut nating long wanem hap em paitim long en.	When the woman shot them down and hit the ghost, blood just shot out from every place that she had hit her.	0		hit	
32c	tewel	ghost	510	28406	Long taim ol i laik	paitim tewel, man tru i singaut, 'Hai yupela no ken paitim em, yupela paitim mi ya.'	When they beat the ghost, the real boy called out, "Hey you can't beat him, you're just beating me."	1	METON	COMPLEX EVENT FOR SUB-EVENT	assault
33a	susap	jew's harp	761	51829	Bai mi	paitim susap i go daun na kamap long haus bilong mama.'	I'll play the Jew's harp and go down to mama's house."	1	META	PLAYING INSTRUMENTS IS DRUMMING	music
33d	susap	jew's harp	128	3456	Yangpela meri em i kirap na tok, 'Klostu tulait na mi laik slip, yu wanem longlong man i kam long haus bilong mi na	paitim susap olsem?'	The young woman awoke and said, "It's not even dawn yet and I want to sleep. Which crazy man are you to come to my house and play the Jew's harp like that?"	1	META	PLAYING INSTRUMENTS IS DRUMMING	music