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PREFACE

Although the Austronesian Formal Linguistics Association (AFLA) has been holding annual meetings since 1994, until now it has had no consistent approach to the publication of its *Proceedings*. Papers from AFLA 2 and AFLA 14 were published as edited volumes; in other years the local organizers published the *Proceedings* in their Department's Working Papers series; in still other years no *Proceedings* was published. The 16th annual meeting of AFLA was held May 1-3, 2009, at the University of California, Santa Cruz. During the business meeting, the idea was floated that the *Proceedings* henceforth be published electronically, in a consistent format, at the AFLA website (http://ling.uwo.ca/afla/), which is generously hosted by the University of Western Ontario. The initial result is this volume, which has emerged very quickly indeed—less than six months after AFLA 16 was held. Our hope is that on-line publication of this and future volumes of the *Proceedings of AFLA* will enable research on the formal linguistics of Austronesian languages to reach as wide a readership as possible.

We want to thank UCSC's Linguistics Department and its Linguistics Research Center for hosting AFLA 16, the authors for submitting their papers so efficiently, and the University of Western Ontario for hosting the website at which this volume is posted. We also wish to acknowledge the precedent set by the *Proceedings of AFLA 12*, which was published on-line as *UCLA Working Papers in Linguistics* No. 12, and whose stylesheet heavily influenced the stylesheet we constructed for the *Proceedings of AFLA*.

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HILI-CLAUSES: INSIGHTS INTO TONGAN NOMINALIZATIONS*

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This paper examines the 'after'-clauses in Tongan that begin with *hili*, focusing particularly on the complement of *hili*. The first portion of the paper is devoted to establishing that these complements are, in fact, nominalized clauses. The second portion of this paper delves into the nature of these clauses. Nominalized clauses are shown to have a fairly even split of clausal and nominal patterning, clustered in a way that is surprising given 'layered' approaches to nominalizations, but consistent with a 'mixed category' account.

1. Introduction

One way to express 'after'-clauses in Tongan is to use the word *hili* (Churchward, 1953, 118) within the gross structure in (1):

(1)   *hili* + expression denoting the prior state of affairs

An example of this construction is the second clause (bracketed) in (2):

(2)   Naʻá ku lokaʻi ʻa e   fale koloa [*hili* ʻa e   kaihaʻasi ʻe he kau kaihaʻá na
        PST 1SG lock.TR ABS DET store   after ABS DET steal.TR ERG DET PL thief   DEM
        ʻa   e   koloa].
        ABS DET goods
        'I locked the store after those thieves stole the goods.'

Examples such as the bracketed clause in (2) raise several syntactic questions. First and more modestly, what kind of syntactic entity is the expression denoting the prior state of affairs? I will argue that these expressions are just nominalized clauses, identical to those found in other syntactic contexts in Tongan. The more complex problem that I will use *hili*-clauses to investigate is the questions surrounding the internal structure or lexical category of nominalized clauses. These clauses show a mix of nominal and clausal/verbal properties; this paper looks to more precisely

describe the contexts where nominalized clauses pattern like noun phrases and where they pattern like finite clauses/verbal phrases, as well as considering why the patterns are what they are. The distribution of contexts will prove to be problematic for reductionist views where the heads of nominalized clauses are treated as 'pure' nouns or verbs, as well as for 'standard' layered theories of nominalization (such as Abney 1987 and Bresnan 1997). In response to these problems, I suggest that the 'mixed category' analysis of English nominalizations in Malouf 2000 might profitably be applied to the heads of Tongan nominalized clauses as well.

However, before considering these issues regarding nominalizations in Tongan, let me first show that the nominalized clause is the correct analysis for the complement of *hili*.

2. The Complement of *Hili*

Even a small and cursory examination of the realizations of the clausal complement of 'after' cross-linguistically reveals a familiar pattern: more than one pattern occurs across languages, but the range of variation is relatively narrow. Within the 'after'-clause domain, there are three options: (1) the complement is an ordinary finite clause, exactly like the clauses found in declarative sentences; (2) the complement is a complement clause, exactly like the propositional complement of a verb of saying, perception, or emotion; and (3) the complement is a deverbalized clausal construction, utilizing either a nominalized verb or participle (converb). Figure 1 summarizes these options and gives examples of languages that instantiate the options, both inside of the Austronesian family and outside of it.

Formal Realization	Example Languages
Ordinary finite clause (TP)	English, Indonesian (Fortin 2006)
Complement clause (CP)*	Tagalog (Schachter and Otanes, 1972, 445–446), French (Hawkins and Towell, 2001, 384–385), Italian Del Prete (2008), Norwegian (Strandskogen and Strandskogen, 1986, 139)
Deverbalized clause	Turkish (Göksel and Kerslake, 2005, 468–469), English (in addition to a TP)

*Languages such as German (Durrell, 1995, 391), Latin (Mahoney, 2001, 341), and Russian (Maltzoff, 1984, 309) utilize a (relative) pronoun as the 'true' complement of the equivalent of 'after', plus a clause that appears to be in apposition to this pronoun. Whether this should be treated as a fourth type or be assimilated to the complement clause type is a question I leave for future research.

Figure 1: Realization of Clause Complements in 'After'-Clauses, Cross-Linguistically

The consideration space for the complement of *hili* is slightly smaller than that shown in Figure 1, simply because Tongan lacks formally distinct complement clauses; that is, the language lacks marking that functions like the English complementizer *that*. Instead, complement clauses are formally identical to finite clauses, as illustrated in (3):

(3) a. Naʻe pehē ʻe   Paula [ʻe fakaʻuli ʻa   Sione   ki   San Bruno].
         PST say ERG (name) FUT drive   ABS (name) DAT (place)
         'Paul said that Sione will drive to San Bruno.'

     b. ʻE fakaʻuli ʻa   Sione   ki   San Bruno.
         FUT drive   ABS (name) DAT (place)
         'Sione will drive to San Bruno.'

While the identity shown in (3) does not preclude the possibility that complement clauses and finite clauses could be covertly distinct, the practical upshot of this identity is that, on an initial pass, finite and complement clauses in the relevant Tongan examples can be investigated using one set of forms.

2.1.   The Complement of *Hili* is not a Finite Clause

In this section, I turn briefly to the question of whether *hili* can take some sort of finite clause, to begin to delimit the possibilities surrounding the complement of *hili*. If a finite clause follows *hili*, as its intended complement, the result is unacceptable. This is shown in (4), where the putative *hili*-clause is bracketed. The example in (4) differs from the example in (2) in that *hili* is followed by a tense-aspect auxiliary *naʻe*, found only in finite clauses, in (4) instead of by a preposition-determiner pair (as in (2)):

(4)   *Naʻá ku lokaʻi ʻa   e   fale koloa [hili *naʻe* kaihaʻasi ʻe   he   kau kaihaʻá na   ʻa
        PST 1SG lock.TR ABS DET store   after PST steal.TR ERG DET PL   thief   DEM ABS
        e   koloa]
        DET goods
        Intended: 'I locked the store after those thieves stole the goods.'

While the unacceptability of (4) indicates that 'pure' finite clauses are not a possible *hili*-comple-ments, the fact that the *hili*-complement in (2) begins with the nominal function words *ʻa e* 'ABS DET' raises the possibility that finite clauses might be acceptable if they were properly 'nominal-ized' by these nominal function words. This possibility, however, also turns out to be unacceptable, as shown in (5), where the nominal function words are bolded and tense-aspect auxiliary is itali-cized:

(5)   *Naʻa ku lokaʻi ʻa   e   fale koloa [hili **ʻa**   **e**   *naʻe* kaihaʻasi ʻe   he   kau kaihaʻá
        PST 1SG lock.TR ABS DET store   after ABS DET PST steal.TR ERG DET PL   thief
        na   ʻa   e   koloa]
        DEM ABS DET goods
        Intended: 'I locked the store after those thieves stole the goods.'

Because finite clauses cannot be integrated in any way into *hili*-clauses, I conclude that *hili* does not and cannot take a finite clause complement. Furthermore, since finite clauses and complement clauses are formally indistinct, the unacceptable examples in (4) and (5) also suggest that the *hili*-complement is not of the complement clause type either, even if there is a covert distinction between the two in Tongan.

2.2.   *Hili*-Complements as Nominalized Clauses

After the discussion in section 2.1., only deverbalized clause is left from the three possibilities mentioned in Figure 1. Beyond this process of elimination, there is also considerable positive evidence that the propositional complements of *hili* are of the nominalized clause type.

Looking first at the other selectional possibilities with *hili*, it turns out that *hili* can select for an ordinary DP, when *hili* takes some nominally-expressed temporal point. This is shown in (6), where the relevant temporal point is *'a e Kilisimasi* 'Christmas':

(6)   Te u   'alu ki   Tongatapu [hili ['a   e   Kilisimasi]].
      FUT 1SG go   DAT (island)   after ABS DET Christmas
      'I will go to Tongatapu after Christmas.'

The example in (6) suggests that the simplest subcategorization hypothesis for *hili* is that it always takes a DP (=fully saturated nominal expression). This, in turn, points to the propositional complement being a nominalized clause, as nothing else in Tongan would both be propositional in meaning and have the syntactic distribution of a DP.

Second, the propositional complements of *hili* have the same left-edge elements as nominal expressions. There are two instantiations of this. In one, the nominalized clause begins with a preposition-determiner pair, such as the *'a e* 'ABS DET' in (7) (italicized):

(7)   Na'á ku   loka'i   'a   e   fale koloa [hili *'a   e*   kaiha'asi 'e   he   kau kaiha'á na
      PST   1SG lock.TR ABS DET store   after ABS DET steal.TR   ERG DET PL   thief   DEM
      'a   e   koloa].
      ABS DET goods
      'I locked the store after those thieves stole the goods.'   =(2)

In the other, the nominalized clause is proceeded by a possessive pronoun, such as *hono* '3SG. INAL.POSS'[1] in (8):

(8)   Na'á ku   loka'i   'a   e   fale koloa [hili *hono*   kaiha'asi 'e   he   kau kaiha'á
      PST   1SG lock.TR ABS DET store   after 3SG.INAL.POSS steal.TR   ERG DET PL   thief
      ni   'a   e   koloa].
      DEM ABS DET goods
      'I locked the store after these thieves stole the goods.'

Furthermore, propositional complements of *hili* must appear with nominal function words. This is shown in (9) where it is unacceptable for *hili* to immediately precede the predicate *kaiha'asi* 'steal':

(9)   *Na'á ku   loka'i   'a   e   fale koloa [*hili kaiha'asi* 'e   he   kau kaiha'á na   'a   e
      PST   1SG lock.TR ABS DET store   after steal.TR   ERG DET PL   thief   DEM ABS DET
      koloa]
      goods
      Intended: 'I locked the store after those thieves stole the goods.'

---

[1] What *hono* agrees with, if anything, in sentences like (8) remains a mystery.

Finally, the propositional complements of *hili* follow the standard Polynesian nominalized clause argument realization patterns. These have been discussed in general by Churchward 1953, ch. 15; Chung 1973; Mosel 1992; and MacDonald 2005a, among others; here I show that the patterns pointed out by these sources also occur in *hili*-clauses. The patterns depend on the valency of the verb and the kind of nominal; for that reason, I discuss each subsystem in turn.

For intransitives, the same patterns are employed in nominalized clauses as occur in finite clauses. Single core arguments are marked with the preposition *'a*,[2] as shown in (10):

(10)   [Hili 'a   e   mohe *'a*   Mele], na'e hoifua.
       after ABS DET sleep ABS (name) PST be.agreeable
       'After Mele slept, she was agreeable.'

If the intransitive verb takes an oblique second argument (that is, if it is part of the class of extended intransitives, to use the term for them from Ball 2008, ch. 7) the oblique form in the nominalized clause is identical to the one used in finite clauses (the single core argument is marked as discussed above). This is illustrated in (11); *sio* 'look' is an extended intransitive, taking the ABS–DAT frame in both finite and nominalized clauses:

(11)   [Hili 'a   e   sio   *'a*   Saimone *kia*   Mele], na'e 'alu ki   he   ngāue.
       after ABS DET look ABS (name)   DAT (name) PST   go   DAT DET work
       'After Saimone saw Mele, he went to work.'

Transitive predicates exhibit the same sort of variable argument realization patterns in *hili*-complements as occur in other nominalized clauses. In one pattern, the arguments are marked by the same prepositions that appear when the arguments are in finite clauses. I will call this pattern 'clausal'; it is illustrated in (12):

(12)   Na'á ku loka'i   'a   e   fale koloa [hili 'a   e   kaiha'asi *'e*   he   kaiha'a *'a*   e
       PST   1SG lock.TR ABS DET store   after ABS DET steal.TR   ERG DET thief   ABS DET
       koloa].
       goods
       'I locked the store after the thief stole the goods.'

In the other pattern, the agent-like argument is still realized with the ergative preposition *'e*, as in clauses, but the patient-like argument is realized with the inalienable genitive preposition *'o*, like in a noun complement.[3] I call this pattern 'quasi-nominal' and show it in (13):

(13)   Na'á ku loka'i   'a   e   fale koloa [hili 'a   e   kaiha'asi *'o*   e   koloa *'e*
       PST   1SG lock.TR ABS DET store   after ABS DET steal.TR   GEN.INAL DET goods ERG
       he   kaiha'a].
       DET thief
       'I locked the store after the goods were stolen by the thief.'

---

[2] The form *'a* is ambiguous between absolutive and alienable genitive. I assume it is the former here because of the otherwise strong pattern of using finite clause realization patterns in nominalized clauses in Tongan.

[3] This realization preferentially has the linear order of GEN.INAL ≺ ERG, as shown in (13).

Lastly, with predicates of all valencies, pronouns with the grammatical relations of A and S (in terms of Dixon 1979) are realized with alienable genitive possessive forms, which independently appear before the content word head of the phrase, regardless if it is a common noun or a predicate. An example of this pronominal realization is the form *'enau* in (14):

(14) Na'á ku   loka'i   'a e   fale koloa [hili *'enau*   kaiha'asi 'a e   koloa].
      PST 1SG lock.TR ABS DET store   after 3PL.AL.POSS steal.TR ABS DET goods.
      'I locked the store after they stole the goods.'

The table in Figure 2 summarizes the patterns found in the *hili*-complements. The impor-

		Realization
With full NPs		
Transitive predicates:	'Clausal'	ERG–ABS
	'Quasi-Nominal'	ERG–GEN.INAL
Intransitive predicates		ABS(–OBL)
With pronominals		
GRs A and S		prenominal GEN.AL pros

Figure 2: Argument Realization Patterns in *Hili*-complements

tant conclusion to draw from the data summarized in Figure 2 is that the patterns described there exactly match those independently found in nominalized clauses in Tongan. As a corollary of this, it must be that that nothing is exceptional about *hili*-complements: they do not exhibit any gaps or mismatches from the 'canonical' nominalized clause argument realization patterns.

Therefore, the evidence from both the external and internal syntax strongly supports considering the *hili*-complements as nominalized clauses. Combined with the data from section 2.1., they strongly point to the view that nominalized clauses are the only possibility for the complement of *hili*.

3.   The Internal Character of Nominalized Clauses

The preceding sections suggest the complement of *hili* should be regarded as a nominalized clause, but still leave the question of how nominalized clauses are to be understood. As the preceding discussion revealed, the nominalized clauses in Tongan exhibit the external syntactic properties of nominal expressions, yet have some of the internal syntactic properties of finite clauses (verbal expressions). The remainder of this paper is concerned with shedding some light on how the character of nominalized clauses should be understood, using *hili*-clauses as convenient 'carrier' expressions. I use the term 'character' here, since it is a useful cover term both for what some might consider the structure of nominalized clauses and for what others might consider the syntactic category of these clauses.

3.1.   Some Red Herrings

Before preceding to the more revealing data sets, I first discuss several properties that one might think would illuminate this question of 'character', but for Tongan-specific reasons, these conceivable diagnostics are inconclusive.

First, and most obviously, is the morphological form of the predicate. If affixes could be added to the predicate, they might provide information about what category the predicate itself should be assigned. However, befitting Tongan's generally analytic morphological profile, the head of the nominalized clause generally has no affixes.[4] In fact, words with the same form regularly appear in different syntactic contexts, leading scholars like Broschart (1997) to suggest that Tongan syntactic categories are considerably different from those found in well-known western European languages. So, since the predicates in nominalized clauses are morphologically unadorned, their morphological form does not reveal anything about their overall 'character'.

Second is the property of being negated. Tongan nominalized clauses can be negated, as shown in (15), using the form *'ikai* 'NEG':[5]

(15)   Na'e kaiha'asi 'e   he   kaiha'a 'a   e   koloa [hili 'a   e   *'ikai* (ke)   loka'i   'e
        PST   steal.TR   ERG DET thief   ABS DET goods after ABS DET NEG (SBJV) lock.TR ERG
        Sione 'a   e   fale].
        (name) ABS DET house
        'The thief stole the stuff after Sione didn't lock the house.'

Because Tongan only has sentential negation and no negation internal to nominal expressions, this pattern would seem to indicate that nominalized clauses pattern with main clauses (and by extension, with verbs). However, the 'sign of negation', *'ikai*, independently patterns with verbs, so the datum in (15) may just reveal that the negation verb can 'nominalize' (whatever that ultimately means) just as other verbs do.

The third and final red herring is pluralization. Pluralization, importantly, is accomplished by pre-head words in Tongan. If one of these words could appear before the head of the nominalized clause, this would be evidence in support of a noun categorization for that head. Yet, pluralization of the head of the nominalized clause is not acceptable, as shown in (16):

(16)   *Na'á ku   loka'i   'a   e   fale koloa [hili 'a   e   *ngaahi* kaiha'asi 'e   he   kaiha'a
        PST   1SG lock.TR ABS DET store   after ABS DET PL   steal.TR   ERG DET thief
        'a/'o   e   koloa]
        ABS/GEN.INAL DET goods
        Intended: 'I locked the store after the robberies [lit. stealings] of the goods by the thief.'

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[4] However, the form of predicate in the all the preceding examples includes a *-Ci* affix (see Churchward 1953, ch. 30, MacDonald 2005b, Ball 2008, ch. 7 for some further discussion). If the *-Ci* affixes do, in fact, morphologically define verbs, this would be evidence that the predicates in nominalized clauses are verbs. However, the question remains how motivated the *-Ci* affixes are by semantics and how motivated they are by lexical category.

[5] The optional presence of *ke* shown in (15) is part of a general pattern within Tongan negation. It is inconsequential for the point at hand.

While (16) may indicate the head of nominalized clauses should be grouped with the verbal head of finite clauses, it is also consistent with the view that nominalized predicates might be too abstract for pluralization or that the predicates in nominalized clauses might fall outside of the selectional restrictions of the plural-marking words. Thus, pluralization is another inconclusive diagnostic.

The remaining properties, however, are more conclusive with regard to whether the nominalized clauses pattern more with nominal expressions or more with finite clauses. They divide into two categories: argument realization properties and external properties, which the next two sections will discuss in turn. Yet, even while the individual tests point to one categorization or another, the aggregate of the tests still leaves a mixed picture.

3.2.   Argument Realization Properties

Section 2.2. showed that all of the full NP realization patterns found in finite clauses are also found in nominalized clauses. That section also revealed that some nominal argument realization patterns are also found in nominalized clauses: the pronominals are realized as possessive pronouns and the inalienable genitive is an option for transitive objects. This raises the question of whether further nominal patterns are found in nominalized clauses. However, the evidence reveals that further possible nominal argument realization properties are, in fact, not found in nominalized clauses.

In nominal expressions, both the alienable and inalienable genitive prepositions are each allowed to appear in a canonical noun phrase, as in (17):

(17)   Na'e sio 'a   Saimone ki   he   ngaahi [fakatātā 'a   Sione 'o   Mele].
       PST look ABS (name)   DAT DET PL   picture   GEN.AL (name) GEN.INAL (name)
       'Saimone saw Sione's pictures of Mele.'

However, this same pattern is not allowed in nominalized clauses, as shown in (18):

(18)   *Na'á ku   loka'i 'a   e   fale koloa [hili 'a   e   kaiha'asi 'a   e   kau kaiha'a
        PST 1SG lock ABS DET store   after ABS DET steal.TR GEN.AL DET PL thief
        'o   e   koloa]
        GEN.INAL DET goods
        Intended: 'I locked the store after the thieves stole the goods.'

Thus, in this respect, the nominalized clauses appear to pattern more with the finite clauses than with nominal expressions.

A further question is whether the presence of the ergative and dative prepositions (illustrated in examples (11), (12), and (13)) is uniquely clausal or common to both clauses and nominal expressions (the latter is a pattern found with the translational equivalents of 'by' and 'to' in most, if not all, western European languages). The answer here also seems to be that nominalized clauses pattern with finite clauses. The ergative and the dative prepositions, though allowed in nominalized clauses, are not allowed in more canonical nominal expressions, as shown in (19):

(19)   a.   *' a   e   tohi fo'ou 'e   Futa   Helu
              ABS DET book new ERG (author name)
              Intended: 'the new book by Futa Helu'

    b.   *' a   e   maka fakalangilangi *kia* Kuini Vikatolia
           ABS DET stone honoring   DAT Queen Victoria
           Intended: 'the monument to Queen Victoria'

Instead, one of the genitive prepositions must be used (depending on the relationship between the noun and its relator), as shown in (20):

(20)   a.   'a   e   tohi fo'ou *'a*   Futa   Helu
           ABS DET book new GEN.AL (author name)
           'Futa Helu's new book'

       b.   'a   e   maka fakalangilangi *'o*   Kuini Vikatolia
           ABS DET stone honoring   GEN.INAL Queen Victoria
           'the monument to Queen Victoria' (lit. 'the honoring stone of Queen Victoria')

     Overall, the argument realization patterns in nominalized clauses appear to be rather like finite clauses: nominalized clauses appear to be much more free to include certain prepositional ('case') forms than more canonical nominal expressions are.

3.3. Other Syntactic Properties of Nominalized Clauses

Two other properties—both dealing with the syntax of nominalized clauses outside of argument realization—can also be brought to bear on the question of the 'character' of nominalized clauses: adverbial possibilities[6] and coordination.

     If Tongan nominalized clauses belong to one category or another, or if these clauses include both verbal and nominal 'regions', one might see it in adverbials. Adverbials in Tongan can appear, in finite clauses, both preverbally and postverbally. Does this same pattern hold in nominalized clauses? Indeed, it does. In fact, it holds regardless of whether the clausal argument realization pattern appears within the nominalized clause or the quasi-nominal one appears. The examples in (21) show that both kinds of adverbials are allowed with the clausal argument realization pattern:

(21)   a.   [Hili 'a   e   *toutou*   fakama'a 'e Mele 'a   e   faliki], na'e hela'ia.
           after ABS DET repeatedly clean   ERG (name) ABS DET floor   PST be.tired
           'After Mele repeatedly cleaned the floor, she was tired.'

       b.   [Hili 'a   e   fakama'a *fakalelei* 'e Mele 'a   e   faliki], na'e hela'ia.
           after ABS DET clean   well   ERG (name) ABS DET floor   PST be.tired
           'After Mele nicely cleaned the floor, she was tired.'

The examples in (22) show that the same adverbials are also possible with the quasi-nominal realization pattern:

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[6] I focus here on whether or not adverbials are possible, instead of the more usual question of whether adverbs or adjectives appear because adverbials and adjectives are difficult to distinguish in Tongan. To the extent there is a difference, my investigations indicate that both adverbials and adjectives are possible modifiers in nominalized clauses.

(22) a. [Hili ʻa   e   *toutou*   fakamaʻa ʻo   e   faliki ʻe   Mele], naʻe helaʻia.
          after ABS DET repeatedly clean   GEN.INAL DET floor ERG (name) PST be.tired
          'After Mele repeatedly cleaned the floor, she was tired'

      b. [Hili ʻa   e   fakamaʻa *fakalelei* ʻo   e   faliki ʻe   Mele], naʻe helaʻia.
          after ABS DET clean   well   GEN.INAL DET floor ERG (name) PST be.tired
          'After Mele cleaned the floor nicely, she was tired.'

Thus, the adverbial behavior places nominalized clauses with finite clauses, in terms of allowing adverbials in both pre- and post-predicate positions.

Turning, then, to coordination, Tongan is among the languages that has different coordination strategies for different kinds of categories. Nominal categories are coordinated with *mo e* (lit. 'with the'—the comitative preposition and the determiner), while clausal or verbal categories are coordinated with a variety of words, most prominently *pea* 'and then'. The data reveal that the nominal coordination marking *mo e* is, in fact, possible for nominalized clauses, as shown in (23) (the conjuncts are bracketed here and elsewhere in this section):

(23) Hili ʻa   e   [fafanga ʻe   Mele   ʻa   e   pusi] mo   e   [fuʻifuʻi ʻe   Sione   ʻa
      after ABS DET feed   ERG (name) ABS DET cat   COM DET water   ERG (name) ABS
      e   ʻakau], naʻa nau ʻalu ki   he   fale koloa.
      DET plant   PST 3PL go   DAT DET store
      'After Mary fed the cat and then Sione watered the plant, they went to the store.'

Furthermore, the marking *mo e* is possible with both the clausal argument realization (as in (23) above) and the quasi-nominal realization, as shown in (24):

(24) Hili ʻa   e   [fafanga ʻo   e   pusi ʻe   Mele] mo   e   [fuʻifuʻi ʻo   e
      after ABS DET feed   GEN.INAL DET cat ERG (name) COM DET water   GEN.INAL DET
      ʻakau ʻe   Sione], naʻa nau ʻalu ki   he   fale koloa.
      plant ERG (name) PST 3PL go   DAT DET store
      Intended: 'After Mary fed the cat and Sione watered the plant, they went to the store.'

So the nominal coordination patterns seem to point to nominalized clauses being nominal.

Coordination with *pea*, in contrast, differentiates between the clausal and quasi-nominal patterns. As one might suspect, *pea* is allowed with the clausal pattern, as shown in (25):

(25) Hili ʻa   e   [fafanga ʻe   Mele   ʻa   e   pusi] pea [fuʻifuʻi ʻe   Sione   ʻa   e
      after ABS DET feed   ERG (name) ABS DET cat   and water   ERG (name) ABS DET
      ʻakau], naʻa nau ʻalu ki   he   fale koloa.
      plant   PST 3PL go   DAT DET store
      'After Mary fed the cat and then Sione watered the plant, they went to the store.'

Yet *pea* is not allowed to conjoin two conjuncts with the quasi-nominal pattern. This is illustrated in (26):

(26) *Hili 'a e [fafanga 'o   e   pusi 'e   Mele] pea [fu'ifu'i 'o   e   'akau
     after ABS DET feed   GEN.INAL DET cat ERG (name) and water   GEN.INAL DET plant
     'e   Sione], na'a nau 'alu ki   he   fale koloa
     ERG (name) PST 3PL go   DAT DET store
     Intended: 'After Mary fed the cat and then Sione watered the plant, they went to the store.'

This sort of example might be a small amount of evidence for treating nominalized clauses with the quasi-nominal realization as belonging to some sort of nominal category, although another possible analysis to consider is whether the difference comes about through particular properties of *pea*.

So, these additional properties provide further criteria for evaluating the 'nouniness' and 'verbiness' of nominalized clauses, but these properties together do not point in an unique direction. The adverbial data point to the nominalized clauses patterning with finite clauses. However, the coordination data suggests that nominalized clauses might pattern with both finite clauses and nominal expressions.

3.4.   Discussion of the 'Character' of Nominalized Clauses

A chart summarizing the different properties investigated in sections 2.2., 3.2., and 3.3. and their patterning is given in Figure 3.
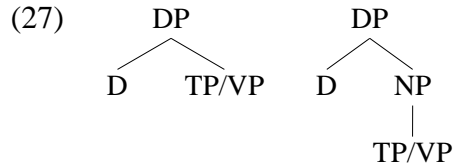
Property	Pattern
External distribution	Nominal
Pre-predicate function words	Nominal
Pronominal Realization	Nominal
Case arrays (post-predicate arguments) (ABS, ABS–OBL, ERG–ABS)	Clausal
Other transitive case array (ERG–GEN.INAL)	(Quasi-)Nominal
Lack of double GEN (*GEN.AL–GEN.INAL)	Non-nominal
Presence of ERG, ABS, and DAT	Non-nominal
Presence of pre- and post-predicate adverbs	Clausal
Coordination with *pea* (not possible with ERG–GEN.INAL)	Clausal
Coordination with *mo e*	Nominal

Figure 3: Patterning of Different Properties of Nominalized Clauses in Tongan

A simple tally of the properties in Figure 3 reveals that the properties are close to evenly split between clausal and nominal. This distribution suggests that the predicates in nominalized clauses cannot easily be considered 'normal' members of either the category of verb or noun; the Tongan facts will create anomalies in either direction. For example, adverbials do not normally modify nouns, yet they would have to modify nouns, if the predicates in nominalized clauses were analyzed as 'pure' nouns. Likewise, verbs in Tongan normally do not license either kind of genitive

prepositional phrase, yet they would in nominalized clcauses, if the predicates in nominalized clauses were analyzed as 'pure' verbs. Thus, a more sophisticated approach has to be taken.

One possible approach is a layered approach (also known as the Phrasal Coherence Hypothesis [Malouf 2000, 96–97]), which has been implemented in several different frameworks (see Abney 1987 for a Principles & Parameters implementation and Bresnan 1997 for an LFG implementation). On this approach, the nominalized clause is analyzed as having a outer nominal 'shell' and an inner clausal or verbal 'shell', like those in the trees in (27):

(27)

```
        DP                DP
       /  \              /  \
      D   TP/VP         D    NP
                             |
                           TP/VP
```

The left tree demonstrates a possible analysis for a constituent with a nominal left-edge (the D) and a clausal or verbal (TP or VP) right region. The right tree demonstrates an analysis for an expression with a more nominal structure: the NP node (or its head) between the determiner and the clausal/verbal projections would license nominal modifiers and nominal argument positions (such as a genitive-licensing position); by virtue of the tree geometry, the nominal elements would necessarily surround the clausal/verbal elements.

In light of these theories, it is important to look at how the properties of Figure 3 lie out linearly/hierarchically. This arrangement of the data is precisely what is shown in Figure 4.

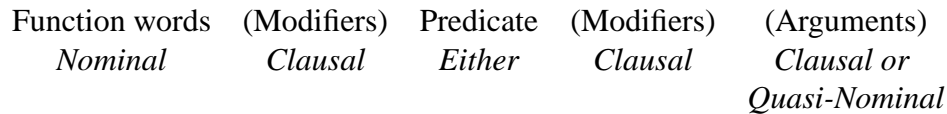| Function words	(Modifiers)	Predicate	(Modifiers)	(Arguments)
Nominal	*Clausal*	*Either*	*Clausal*	*Clausal or Quasi-Nominal*

Figure 4: Nominalized Clauses, Schematically

In looking at Figure 4, the extreme left-edge of the nominalized clause—where the function words are—is clearly nominal. However, the rest is not so clearly either nominal or clausal. There are a fair amount of clausal properties towards the right, but the arguments can be also realized using the quasi-nominal pattern. And while Figure 4 may look like nominalized clauses are comprised of nominal edges and an interior verbal region, recall example (13) showed that the nominal argument (the genitive) actually occurs linearly to the left of the clausal argument (the ergative). Thus, the actual linear order does not neatly group the units into nominal and verbal regions. Furthermore, recall that the expression that includes the predicate and everything to its right can behave both nominally or clausally with respect to coordination (as pointed out in section 3.3.). Thus, nominalized clauses in Tongan do not appear to be layered. This lack of layering in Tongan is then surprising for any layered account (like Abney's or Bresnan's), because these approaches predict coherent, separate clausal and nominal regions (i.e. the regions are not interleaved, but are contiguous).

These facts may not require the abandonment of approaches along the lines of Abney or Bresnan, especially if a layered account is augmented with a rich set of functional heads and with a

theory of the movements obscuring the coherence (though the task of developing such an account is certainly non-trivial). However, the 'incoherency' of Tongan nominalized clauses also suggests the possibility of another alternative. Perhaps the predicates in Tongan nominalized clauses belong to a part of speech (lexical) category—call it gerund—that is separate from, but related to the verb and noun categories. This is precisely the analysis of English gerunds found in Malouf 2000 (within the framework of HPSG), and the analysis I sketch here just transfers Malouf's analysis to Tongan. On this analysis, the parts of speech are arranged into a type hierarchy (as is proposed in HPSG [e.g. Pollard and Sag 1987] or many varieties of Construction Grammar [e.g. Goldberg 1995]), and the place of the category gerund is as in (28) (cf. Malouf 2000, 65):

(28)

part-of-speech

...   *nominal*   *verbal*

noun   *gerund*   *verb*
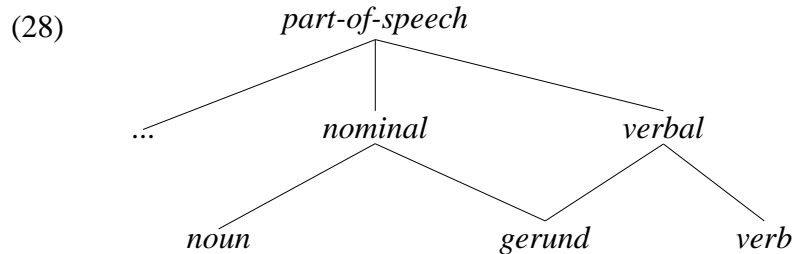
With this hierarchy in place, constraints could be stated with respect to any of the nodes, and the ability to place constraints on both underspecified (a non-leaf in (28)) and specified (a leaf in (28)) categories can capture the seemingly variable behavior of Tongan nominalized clauses. This is accomplished because any constraint that holds of the underspecified mother type also must hold of the specified daughter types. Gerunds, then, will be subject to the wide collection of constraints because the type *gerund* 'inherits' from both of its mother types, *verbal* and *nominal*.

To capture that determiners can take nominalized clauses (in addition to common nouns), the subcategorization feature of determiners would need to be constrained to allow the underspecified *nominal* type, instead of the fully specified *noun*. To allow adverbials in nominalized clauses, adverbials merely need to be constrained so they modify expressions with the underspecified *verbal* type, instead of fully specified *verb*. To capture the relevant case arrays, cases like ergative and dative would need to be constrained so they only appear with heads from the *verbal* category (excluding the ergative and dative from common nouns, but not gerunds), while the inalienable genitive case would need to be constrained so that it only appears with the *nominal* category (excluding it from verbs). To allow both *pea* and *mo e* coordination, the underspecified categories *verbal* and *nominal*, respectively, would need to evoked again.[7] Lastly, to capture that fact that double genitives are not allowed in nominalized clauses, the relevant constraint must say that two genitives are only licensed with the type *noun*, not *nominal*. Making this constraint relevant to *noun* prohibits the pattern from applying to its sister in the type hierarchy *nominal*, because there is no 'inheritance' between sisters.

So, by treating the predicates in nominalized clauses as their own part of speech, related to both nouns and verbs, we can have the best of both worlds. The predicates in nominalized clauses can be treated as having a mix of nominal and verbal properties—in line with the empirical

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[7] This approach requires that the inability of 'quasi-nominal' realization to appear with *pea*-coordination to be dealt with in a way that does not involve part of speech category

facts amassed about them in the previous sections—while nothing unusual has to be said about the syntax of other words, such as determiners and adverbials.

4.   Conclusions

Summing up what this paper has covered, let us first return to the initial concern: the syntax of *hili*-clauses. The evidence within that domain points to the conclusion that *hili* takes nominalized clauses and not any other type of propositional complement. In looking further at this kind of clause, the evidence shows that nominalized clauses in Tongan show a mix of clausal and nominal properties that, interestingly, do not form coherent, contiguous regions of patterning. Given the data presented here, nominalized clauses in Tongan require that they (1) have the right features/structures to be selected for by nominal function words, (2) license both pre- and post-predicate adverbials, (3) have the ability to license both clausal dependencies patterns and (quasi-)nominal ones, and (4) have the ability to appear in both nominal and verbal varieties of coordination. I have suggested that by importing Malouf's 2000 analysis of English gerunds to Tongan, we could have an analysis that meets these four criteria while only minimally disturbing the rest of analysis of Tongan morphosyntax.

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