



Predicate-slucing in Tokelauan

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Abstract

This paper sheds light on sluicing structures in Tokelauan, a predicate-initial Polynesian language. Crosslinguistically, sluicing has been analyzed as having various different underlying structures, with many Austronesian languages deriving sluicing from pseudoclefts, which have *wh*-predicates. For Malagasy, it has been proposed that this is predicate-slucing, which implies *any* *wh*-predicate should be able to appear as a sluicing remnant. Tokelauan has multiple structures with *wh*-predicates, including pseudoclefts (with *ko*-predicates), interrogative locative PPs, and interrogative verbs. We can therefore test the concept of predicate-slucing to see whether all *wh*-predicates are licit sluicing remnants, or if the distribution is narrower. This paper demonstrates that for Tokelauan, only *ko*-predicates (i.e., predicates that combine a DP with a *ko* morpheme) can underlie genuine sluicing with clausal-ellipsis. Other *wh*-predicates may appear in sluicing-like constructions, but these are formed from pseudosluicing (*pro*-drop that creates the appearance of a genuine sluice). It is proposed that the distinction between *ko*-predicates and other predicates in sluicing is due to the structure of these predicates. Only *ko*-predicates check the E(llipsis)-feature to form genuine sluicing, while other predicates are unable to check this E-feature, meaning they are never found in genuine sluicing. Consequently, the concept of predicate-slucing is too broad for the phenomenon found in Tokelauan, as only *ko*-predicates may be sluiced.

Keywords Sluicing · Predicate sluicing · Pseudocleft sluicing · Verb-initial · Austronesian · Tokelauan

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1 Introduction

Sluicing is a construction in which clausal-deletion occurs, leaving a *wh*-phrase as the only remaining constituent in the clause.¹ An English example of sluicing is given in (1). In many languages, it has been argued that a *wh*-phrase undergoes *wh*-movement to a clause-initial position, parallel to the movement in question formation. The subsequent deletion of the TP creates a sluice. The derivation of (1a) is illustrated in (1b), where *wh*-movement moves *what* to SpecCP, and the remaining embedded TP is deleted (Ross 1969; Merchant 2001; Aelbrecht 2010).²

- (1) *Sluicing*
- a. John cooked something, but I don't know *what*.
 - b. John cooked something, but I don't know [_{CP} *what*_i [_{TP} ~~John cooked *t*_i~~]].

It is often argued that the process that underlies sluicing is *wh*-movement of the *wh*-phrase to SpecCP, which checks an ellipsis-triggering feature (E-feature), licensing the deletion of the complement TP (Merchant 2001).³ However, many languages do not have *wh*-movement, raising the question of whether they have sluicing and if so, what kind of sluicing derivation they have. In some languages, sluicing has been claimed to be formed from focus-movement (Hoyt and Teodorescu 2004; Grebenyova 2006, 2007; Toosarvandani 2008; Van Craenenbroeck and Lipták 2006; Ince 2012). For both *wh*-movement sluicing and focus-movement sluicing, a similar analysis may be adopted: both involve movement of a *wh*-constituent to the left periphery.

In other languages, different underlying structures for sluicing have been proposed. Many Austronesian languages employ the pseudocleft structure for *wh*-question formation, where the *wh*-phrase is the predicate and a headless relative-clause is the subject (Potsdam 2006; Potsdam and Polinsky 2011). Consequently, in several Austronesian languages, it has been argued that sluicing is derived from pseudocleft structures (Potsdam 2007; Wei 2011; Paul and Potsdam 2012; Borise 2016; Drummond To appear). As the *wh*-remnant in pseudocleft sluicing is a predicate, Potsdam (2007) claims that this type of sluicing is predicate-sluicing, with sluicing licensed when the predicate has a [+*wh*] feature. This makes a clear prediction: in predicate-sluicing languages, any *wh*-predicate should be able to check the E-feature that triggers sluicing. However, in many Austronesian languages, only *wh*-predicates that appear in pseudoclefts have been observed in sluicing structures, meaning that

¹This paper will follow the PF deletion approach of Ross (1969) and Merchant (2001). This model views the elided content as present syntactically, but deleted phonologically at PF.

²Hereafter, the phrase 'sluiced clause' is used for the clause in which ellipsis occurs. The *wh*-phrase will be termed the 'remnant', and 'remainder' is used to indicate the material deleted in the sluice.

³Some type of parallelism must occur between the antecedent clause and the sluiced clause, which has been claimed to be syntactic (Fiengo and May 1994; Chung 2013; Ranero 2021), semantic (Dalrymple et al. 1991; Merchant 2001), or a hybrid of both (Barros 2014). Once identity is satisfied, the deletion of the remainder is licensed by feature checking.

the existence of predicate-slucing outside of pseudocleft structures is unattested in the literature.⁴

Tokelauan (Polynesian, Samoic) provides a novel testing ground for this prediction. Tokelauan has *wh*-predicates in pseudocleft structures (2a) as well as simple equative clauses (2b), locative PP predicates (2c) and verbal predicates (2d).⁵ Predicates that consist of a noun preceded by a *ko* particle (2a and b) are called *ko*-predicates in this paper.⁶

(2) *Tokelauan wh-predicates*

- a. [Pred Ko *ai*] te na kiki e Rangi?
PRED who DEF PST kick ERG Rangi
'Who did Rangi kick?'
- b. [Pred Ko he *ā*] tēnā?
PRED INDF what DEM
'What is that?'
- c. E [Pred *i* *fea*] te maile?
PRS LOC where DEF dog
'Where is the dog?'
- d. Na [Pred *vēhea*] ia fai kakau a William?
PST how ABS do swim GEN William
'What was William's way of swimming?'

Slucing-like constructions (SLCs) are observed for all *wh*-predicates in Tokelauan. The term SLC is used descriptively in this paper, without committing to an analysis. Two SLC examples are given below, (3) with a *ko*-marked predicate remnant and (4) with a locative PP predicate remnant.

(3) *Slucing-like construction with ko-predicate remnant*

- Na kiki te tino e Rangi, kae e hē kō iloa pe
PST kick DEF person ERG Rangi but PRS NEG 1SG know COMP
ko ai.
PRED who
'Rangi kicked someone, but I don't know who.'

⁴Potsdam (2007) proposed predicate-slucing on the basis of Malagasy. Paul and Potsdam (2012) show that some *wh*-phrases (e.g., accusative *wh*-phrases) cannot appear in pseudoclefts, nor in slucing. However, there are other types of interrogative structures in Malagasy that do not have pseudocleft structures (Rahajarizafy 1960; Rajaonarimanana 1995), which appear to be untested for slucing. It is possible that the concept of predicate-slucing is too permissive even for Malagasy.

⁵The novel Tokelauan data comes from native Tokelauan judgements. Fieldwork was conducted in New Zealand, mainly with one male (L1) Tokelauan speaker, who spent his youth in Tokelau before moving to New Zealand. Additional elicitation was conducted with seven other native Tokelauan speakers. Any data that is not credited to another author is from this author's consultant(s). Some original abbreviations from other authors have been altered to follow the Leipzig Glossing Rules where these apply. Additional abbreviations used in glosses: ANP anaphoric particle; CIA agentive verbal suffix; DIR directional particle; INT intensifier; TAM tense/aspect/modal particle.

⁶In the data, *ko* is glossed PRED, for predicate marker.

- (4) *Sluicing-like construction with locative PP predicate remnant*
 Na kite-a e Rangī te maile i he mea,
 PST see-CIA ERG Rangī DEF dog LOC INDF place
 kae e hē kō iloa pe nae i fea.
 but PRS NEG 1SG know COMP TAM LOC where
 ‘Rangī saw the dog somewhere, but I don’t know where.’

This paper proposes that SLCs with *ko*-remnants are genuine sluicing, while other wh-predicates appear as remnants of pseudosluicing (*pro*-drop that creates the appearance of genuine sluicing). Therefore, for Tokelauan, the concept of predicate-sluicing is too permissive, as not all wh-predicates may undergo genuine sluicing. Instead, genuine sluicing affects a more finely articulated category of predicate, namely *ko*-predicates. This paper proposes all *ko*-predicates, and only *ko*-predicates, can be the remnant in genuine sluicing in Tokelauan.

In Middleton (2024b), I analyze Tokelauan as a predicate-raising language, where all predicates raise to SpecTP. I argue that an EPP[+pred] feature is on T° , which causes all predicates (including *ko*-predicates) to raise to SpecTP above all arguments. A tense/aspect/modal particle undergoes T-to-C movement, creating a TAM-predicate-arguments surface order. In this paper, I adopt Merchant’s (2001) E-feature, which must be checked in order for sluicing to occur. It will be argued that *ko*-predicates and other predicates are structured differently from one another, with *ko*-predicates in a KoP and other predicates in a vP. It is proposed that the E-feature resides on T° and has a [+ko] requirement, with the result being that only *ko*-predicates may check the E-feature that triggers sluicing.

This paper is structured as follows. Section 2 describes the predicate-initial character of Tokelauan, and the language’s wh-question strategies, including all wh-predicate constructions. These will be important for discussing predicate-sluicing, which is said to involve predicate-movement of wh-predicates. Section 3 examines SLCs with *ko*-predicate remnants, arguing that these are genuine sluicing, not pseudosluicing. Section 4 investigates the prediction that all wh-predicates can be genuine sluicing remnants, looking at prepositional and verbal wh-predicates, which may appear in SLCs. However, it is demonstrated that pseudosluicing, rather than genuine sluicing, occurs with these other wh-predicates. This means that Tokelauan does not exhibit predicate-sluicing as such, but rather *ko*-predicate-sluicing. Section 5 provides an analysis for genuine sluicing in Tokelauan: only *ko*-predicates may sluice, due to the fact that only *ko*-predicates can check the E[+ko] feature in T° . Lastly, Sect. 6 rules out the possibility that only the relative-clause TP in pseudocleft sluicing is deleted. Consequently, the analysis whereby a *ko*-predicate raises to SpecTP, which licenses the deletion of the entire remainder is supported. The paper concludes with the claim that Tokelauan exhibits a more restricted version of predicate-sluicing, namely *ko*-predicate-sluicing.

2 Tokelauan syntax

This section will discuss the Tokelauan syntax that is required to address sluicing. This includes the neutral surface order and predicate-movement. Wh-interrogatives will then be described in Sect. 2.1.

Tokelauan is spoken in the three atolls of Tokelau, with migrant communities in New Zealand, Australia, and Hawaii. With around a total of 4000 speakers, it is classed as “severely endangered” by UNESCO. Tokelauan has a neutral VSO word order. The verb is preceded by a tense/aspect/modal (TAM) particle, and followed by the subject, object, and any adjuncts. Speakers also generally allow VOS ordering.

The language exhibits ergative/absolutive alignment, with ergative subjects obligatorily marked with *e*, and absolutive arguments marked with *ia* (5).

(5) *Ergative/absolutive alignment*

Na tuki e John ia Rangi ki tona ulu.
 PST hit ERG John ABS Rangi on his head
 ‘John hit Rangi on his head.’

If an absolutive argument is introduced by a determiner, there is no overt case-marking (6).

(6) *Absolutive argument with determiner*

Na tunu e John (*ia) te ika.
 PST cook ERG John ABS DEF fish
 ‘John cooked the fish.’

Nonverbal predicates appear as the first phrasal constituent in the clause. For example, locative prepositional predicates, adjectival predicates, and possessive predicates are preceded by TAM and followed by a single absolutive argument (7–9).

(7) *Locative prepositional predicate*

E i kinei ia Rangi.
 TAM LOC here ABS Rangi
 ‘Rangi is here.’

(8) *Adjectival predicate* (Simona 1986: 308)

E kino lele te hela.
 TAM bad INT DEF asthma
 ‘Asthma is very bad.’

(9) *Possessive predicate* (Hooper 1993:102)

E a te leoleo te tāvale tēnā.
 TAM POSS DEF policeman DEF car DEM
 ‘That car belongs to the policeman.’

When a predicate consists of a single nominal, it is preceded by the predicate-marker *ko* (10). No TAM occurs in the clause (11), but like other nonverbal predicates, *ko*-predicates take an absolutive argument. As the category of *ko* is debated (Seiter 1980; Cook 1999; Pearce 1999; Baker 2003; Massam et al. 2006; Clemens 2014), this pa-

per will refrain from calling these nominal predicates as other authors do (Hooper 1993; Hovdhaugen 1997; Vonen 1999), instead using the more atheoretical term, *ko*-predicate.

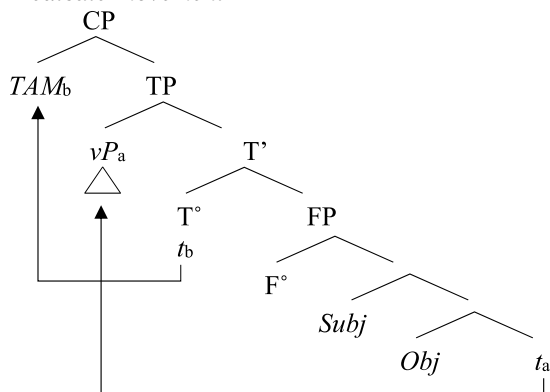
- (10) *Ko-predicate*
Ko he faiaoga ia Rangi.
 PRED INDF teacher ABS Rangi
 ‘Rangi is a teacher.’
- (11) *Ko-predicates do not have TAM particles*
 **E ko he faiaoga te tamaloa.*
 TAM PRED INDF teacher DEF man
 Intended: ‘The man is a teacher.’

Middleton (2024b) claims that the verb-initial order is derived from phrasal predicate-raising, as opposed to head-raising. One major piece of evidence is that all types of predicate, including verbs, PPs, AdjPs, PossPs, and *ko*-predicates, are the first phrasal constituent in the clause. As the entire phrasal projection appears in this position, rather than just the head of the predicate, it is argued that phrasal predicate-fronting has occurred. If this was the result of head-movement, full DPs or PPs would not be expected to appear in the fronted position. To obtain the unmarked VSO word order, it is claimed that the object raises out of the VP to a position below the subject. Subsequent remnant predicate-movement forms the VSO surface order. This analysis is similar to that of Massam (2000) for Niuean, Collins (2017) for Samoan, and Medeiros (2013) for Hawaiian. Middleton (2024b) follows Massam and Smallwood (1997), Alexiadou and Anagnostopoulou (1998), Lee (2000), and Massam (2000) in analyzing the predicate landing site as SpecTP.

In conjunction with T-to-C movement of the TAM particle to the left periphery (Middleton 2021),⁷ the vP predicate raises to SpecTP, and the TAM-predicate-arguments order is obtained (12). The v° is null, unless it contains a *preverb* (see Sect. 5.1). Note that apart from the predicate-movement that creates the predicate-initial word order, the exact mechanics of the TP-internal word order are not crucial for the analysis in this paper. Therefore, the projection below TP has been labeled FP, without the need to identify this projection or the ones below any further. A case in point is that we assume DP-movement of the object out of the predicate occurs before predicate-movement, in order to form the VSO surface order, but this movement is not included in the phrase structure representation in (12).

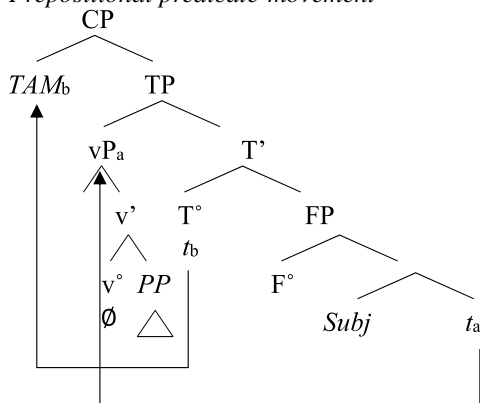
⁷Middleton (2021) actually proposes T-to-Fin movement for Tokelauan. The left periphery is finely articulated, and TAM raises to the lowest complementiser position in the left periphery (FinP). This detail is irrelevant to the current analysis, so will be left out of any further discussion.

(12) *Predicate-movement*

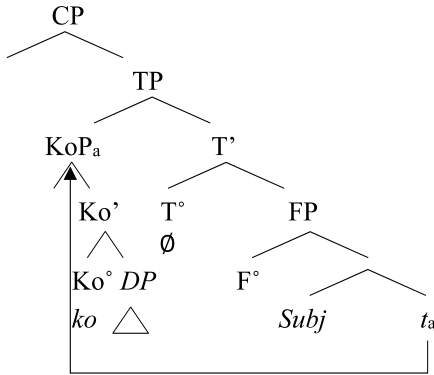


For nonverbal predicates such as the locative PP predicate in (7), this paper proposes that they occur as in (13), with a vP containing the PP (or another nonverbal predicate such as AdjP or PossP). Like in (12), v° is null in (13).

(13) *Prepositional predicate-movement*



Ko-predicate clauses are argued to be different from the PP, AdjP, and PossP predicates, with a *ko* phrase that raises to SpecTP, as in (14). Instead of a vP predicate, this is a KoP predicate, with no vP projection. Both vP and KoP predicates have a [+pred] feature. The argumentation for the different structures of these predicates is given in Sect. 5.

(14) *Ko-predicate-movement*

In verb-initial languages, several different models have been given to explain the verb- or predicate-movement. Most commonly, it has been argued that an EPP feature triggers movement of the verb or predicate (Massam and Smallwood 1997; Davies and Dubinsky 2001; Massam 2001, 2020; Aldridge 2002; Oda 2005; Coon 2010; Collins 2017; Doner 2019). This paper will assume an EPP[+pred] feature sits on T° in Tokelauan, causing the predicate of the clause to raise to SpecTP to check the EPP feature. This licenses the obligatory predicate-movement that occurs in every clause in the language.

2.1 Wh-questions

It is well established that sluicing often relates to wh-questions (Ross 1969). Sluicing occurs with wh-phrase remnants, and it is theorized that movement of the wh-phrase licenses the deletion of the clausal remainder. Therefore, this section will establish the wh-interrogative strategies of Tokelauan, before we turn to sluicing.

Tokelauan employs several structures for wh-questions. Nominal and prepositional wh-phrases may appear in a lower clausal position, following the verb. Apart from those, wh-phrases are predicates that appear clause-initially. Nominal wh-phrases may appear in a *ko*-predicate, either as a simple equative clause or a pseudocleft. Locative prepositional wh-phrases can also be the predicate of a clause, but without the *ko* particle. Similarly, wh-verbs are predicate wh-phrases, but do not cooccur with *ko*.

Each of these wh-interrogative strategies will be discussed below: wh-questions in lower clausal position (Sect. 2.1.1), *ko*-predicate wh-phrases (Sect. 2.1.2), interrogative locative PPs (Sect. 2.1.3), and interrogative verbs (Sect. 2.1.4).

2.1.1 Wh-phrases in lower clausal position

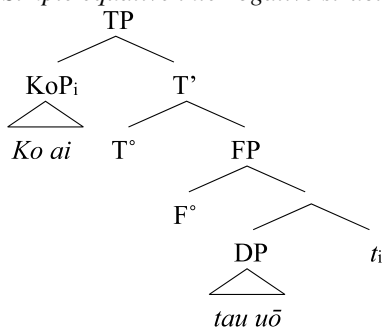
One option for wh-questions is to have the wh-phrase in a lower clausal position, following the verb, which can be employed for DPs or PPs. Examples are shown in (15), where (15a) questions the agent, (15b) questions the direct object, and (15c) questions a PP.

- (15) *Wh-phrases in lower clausal position*
- Na kiki e ai ia Viliamu?
PST kick ERG who ABS Viliamu
'Who kicked Viliamu?'
 - Na kiki e Ioane ia ai?
PST kick ERG Ioane ABS who
'Who did Ioane kick?'
 - Na kakau ia William ki fea?
PST swim ABS William to where
'Where was William swimming to?'

2.1.2 *Ko*-predicate wh-phrases

Another option for interrogatives is to have the wh-phrase in a *ko*-predicate. There are two variants of this, depending on the kind of question being asked. Most simplistically, a *ko*-marked wh-phrase can be followed by a simple DP in an equative structure. Like all predicates in Tokelauan, the *ko*-predicate is positioned first in the clause, followed by its argument. An example is given in (16), with the proposed phrase structure in (17). In this paper, these will be called simple equative clauses.

- (16) *Simple equative interrogative* (Ministry of Education 2011:102)
Ko ai tau uō?
PRED who DEF.2SG.GEN friend
'Who is your friend?'
- (17) *Simple equative interrogative structure*



For interrogatives that require more semantic content (such as questioning an argument of a verbal clause), a pseudocleft can be employed, which is another structure with a *ko*-predicate (Hooper 1993). A pseudocleft is also an equative clause with a *ko*-predicate followed by its subject, but the subject is a headless relative-clause instead of a simple noun.

Three examples of pseudocleft questions are given below (18–20). The predicate is indicated by the first set of square brackets, while the second set of square brackets surround the headless relative-clause subject. The nominal introduced by *ko* is taken to be identical to the property that is denoted by the headless relative-clause. In (18), *ai* 'who' equates to the ergative argument in the headless relative-clause, while in

(19), *ai* ‘who’ equates to the direct object in the headless relative-clause. In (20), *fea* ‘where’ equates to a prepositional adjunct in the headless relative-clause. Ergative arguments relativize with a resumptive preverbal pronoun and verbal suffix, absolutive arguments relativize with a gap, and prepositional nominals relativise with an anaphoric pronoun *ai*, hence the difference between the headless relative-clauses in (18), (19), and (20), respectively.

- (18) *Pseudocleft of ergative subject*
 [Ko *ai*] [te na ia kiki-a ia James]?
 PRED who DEF PST 3SG kick-CIA ABS James
 ‘Who kicked James?’
- (19) *Pseudocleft of absolutive object*
 [Ko *ai*] [te na kiki e Rangi]?
 PRED who DEF PST kick ERG Rangi
 ‘Who did Rangi kick?’
- (20) *Pseudocleft of prepositional adjunct*
 [Ko *fea*] [te na kite-a ai te maile e Rangi]?
 PRED where DEF PST see-CIA ANP DEF dog ERG Rangi
 ‘Where did Rangi see the dog?’

The structure of a pseudocleft is illustrated in (21).

- (21) *Pseudocleft structure*
 Ko he *ā* te kua mou?
 PRED INDF what DEF TAM disappear
 [Predicate wh-phrase] [DP/subject Op_i ... t_i]
 [wh-phrase] [headless relative-clause]
 ‘What disappeared?’

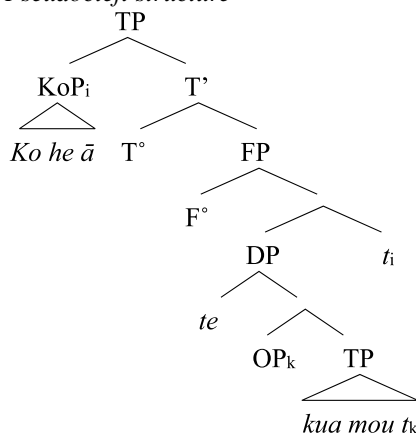
The subject is a headless relative-clause, which can be identified in Tokelauan by the determiner *te* that introduces it. However, the relative head is not overt, and Tokelauan relative-clauses do not have overt complementizers, meaning the determiner is immediately followed by the TAM particle of the relative-clause.⁸ This paper follows standard assumptions regarding relative-clause formation in assuming this head (marked as the operator Op) is base generated within the argument domain and raises within the relative-clause to a clause-initial position (Alexiadou et al. 2000).⁹ In many other Polynesian languages, the determiner that introduces the relative-clause is unpronounced in pseudoclefts, but in Tokelauan this determiner occurs overtly, making identification of pseudoclefts straightforward (Potsdam and Polinsky 2011).

⁸Dummy heads such as ‘the person’ or ‘the thing’ are occasionally overt in interrogatives, and have been reported in other Polynesian languages such as Tuvaluan, Samoan, Marquesan, Tongan, and Rapanui (Potsdam and Polinsky 2011). However, in Tokelauan it is more common that no overt head is present.

⁹Although there are any many other analyses for relative-clause formation, this paper will adopt the model of Kayne (1994). Note that this assumption has no bearing on the wider claims on sluicing advanced in this paper.

The phrase structure of (21) is given below, with the *ko*-predicate raising to the specifier position of TP. The *ko*-predicate is a KoP, which will be expanded on in Sect. 5.¹⁰ Note that for a simple equative clause such as (16), a similar clause structure occurs, the one difference being that the subject DP is simple, rather than a complex headless relative-clause.

(22) *Pseudocleft structure*



Ko-predicates are not the only type of wh-predicate in Tokelauan. Next, we discuss interrogative locative PPs (Sect. 2.1.3) and interrogative verbs (Sect. 2.1.4).

2.1.3 Interrogative locative PPs

Interrogative locative PPs may exist as the predicate of the clause, followed by a single argument (Hooper 1993).¹¹ Declarative and interrogative PP-predicate examples are given in (23).

(23) *Locative PP predicates*

- a. Nae *i kinei ia Rangi*.
TAM LOC here ABS Rangi
'Rangi was here.'
- b. E *i fea te maile*?
PRS LOC where DEF dog
'Where is the dog?'

These are not *ko*-predicates; distinguishing features between the two structures are that a locative PP-predicate occurs with a TAM particle, and the predicate marker *ko* is ungrammatical, whether it cooccurs with TAM (24a) or replaces it (24b).

¹⁰Potsdam and Polinsky (2011) advance the hypothesis that Polynesian pseudoclefts have nominal predicates. It is true that the *ko* particle combines with a nominal to form a predicate constituent. However, as mentioned in the main text, without knowing the exact category of the *ko* particle, this paper will remain impartial about the type of predicate in these structures, instead just calling them *ko*-predicates.

¹¹Locative PPs are the only type of PP that can act as an oblique phrase as well as a predicate phrase.

(24) *Locative PP predicates are not ko-predicates*

- a. *E ko i fea te maile?
 PRS PRED LOC where DEF dog
 Intended: ‘Where is the dog?’
- b. *Ko i fea te maile?
 PRED LOC where DEF dog
 Intended: ‘Where is the dog?’

Furthermore, PP predicates are ungrammatical in pseudoclefts (25), even when replacing the *ko* particle with a TAM marker (25b).¹²

(25) *No pseudoclefting locative PPs*

- a. *Ko i fea te na kite-a (ai) te maile e Rangi?
 PRED LOC where DEF PST see-CIA ANP DEF dog ERG Rangi
 Intended: ‘Where did Rangi see the dog?’
- b. *E i fea te na kakau (ai) ia William?
 TAM LOC where DEF PST swim ANP ABS William
 Intended: ‘Whereabouts did William swim?’

2.1.4 Interrogative verbs

Interrogative verbs are verbs that exist as a wh-phrase, marked by the appropriate verbal morphology, and are found in many Polynesian languages (Potsdam and Polinsky 2011). In Tokelauan, there are several interrogative verbs, such as *vēhea* ‘how’ and *fia* ‘how many’. Examples are given in (26).

(26) *Interrogative verbs*

- a. E *vēhea* mai te tauale?
 TAM how DIR DEF sick
 ‘How is the patient?’ (Hooper 1993:111)
- b. Na *vēhea* ia fai kakau a William?
 PST how ABS do swim GEN William
 ‘What was William’s way of swimming?’
- c. E *faka-fia* oi kakau ia William?
 PRS CAUS-how.many COMP swim ABS William
 ‘How many times did William swim?’

These wh-phrases occur with verbal morphology like tense and aspect marking and other verbal particles. In (26), all three interrogative wh-phrases are preceded by a TAM particle. In (26a), *vēhea* is followed by a directional modifier, and *fia* in (26c) has a verbal causative prefix *faka-* and is followed by a subordinate clause.¹³

¹²Restrictions on what can be pseudoclefted are common amongst Austronesian languages. For example, Tagalog has pseudoclefting for arguments, but not adjuncts (Borise 2016).

¹³Although these surrounding particles are suggestive that these wh-phrases are verbal predicates, this should be assumed tentatively. TAM particles also precede PP predicates, meaning these cannot be used as verbal diagnostics. Furthermore, although the causative morphology generally forms transitive verbs, *faka-* may also attach to quantifiers and nominals: *lua* ‘two’ becomes *faka-lua* ‘twice’, while *fafine* ‘woman’

Like the locative PP predicates above, these verbal predicates are not *ko*-predicates. *Ko*-predicates cannot host a directional particle (27a), nor be modified by the causative prefix *faka*- (27b and c).

(27) *Ko-predicates cannot be modified by directional particles or the causative prefix*

- a. *Ko te tamaloa mai ia Rangi.
PRED DEF man DIR ABS Rangi
 Intended: 'Rangi is the man.'
- b. *Ko te faka-faiaoga e Ioane ia Rangi.
PRED DEF CAUS-teacher ERG Ioane ABS Rangi
 Intended: 'Ioane caused Rangi to be the teacher.'
- c. *Ko faka-te faiaoga e Ioane ia Rangi.
PRED CAUS-DEF teacher ERG Ioane ABS Rangi
 Intended: 'Ioane caused Rangi to be the teacher.'

Pseudoclefting verbal wh-phrases is ungrammatical (28 and 29), even when replacing the *ko* particle with a TAM marker (28b, 29b).

(28) *No pseudoclefting verbal wh-phrases*

- a. *Ko v̄hea te na kakau ia William?
PRED how DEF PST swim ABS William
 Intended: 'How did William swim?'
- b. *E v̄hea te na kakau ia William?
TAM how DEF PST swim ABS William
 Intended: 'How did William swim?'

(29) *No pseudoclefting verbal wh-phrases*

- a. *Ko faka-fia te na kakau ia William?
PRED CAUS-how.many DEF PST swim ABS William
 Intended: 'How many times did William swim?'
- b. *Na faka-fia te na kakau ia William?
PST CAUS-how.many DEF PST swim ABS William
 Intended: 'How many times did William swim?'

3 Sluing-like constructions with *ko*-remnants

Having outlined Tokelauan's wh-question strategies, we may now turn to SLCs. Tokelauan exhibits SLCs with both *ko*-predicate wh-remnants and other predicate wh-remnants, as was seen in (3) and (4), respectively, repeated here as (30) and (31).

becomes *faka-fāfine* 'effeminate male, homosexual' (Hooper 1993:59). One thing is certain, these wh-phrases are not *ko*-predicates; they take TAM particles and are never preceded by the predicate marker *ko*. Neither are they PP predicates, which have an overt preposition. Neither are they PP predicates, which have an overt preposition preceding them. For simplicity, we will call them verbal predicates in this paper.

- (30) *Sluicing-like construction with ko-predicate*
 Na kiki te tino e Rangī, kae e hē kō iloa pe
 PST kick DEF person ERG Rangī but PRS NEG 1SG know COMP
ko ai.
 PRED who
 ‘Rangī kicked someone, but I don’t know who.’
- (31) *Sluicing-like construction with locative PP predicate*
 Na kite-a e Rangī te maile i he mea,
 PST see-CIA ERG Rangī DEF dog LOC INDF place
 kae e hē kō iloa pe nae i fea.
 but PRS NEG 1SG know COMP TAM LOC where
 ‘Rangī saw the dog somewhere, but I don’t know where.’

I propose that SLCs with *ko*-remnants are genuine sluicing with clausal deletion, ruling out a pseudosluicing analysis. First, I will introduce genuine sluicing, and how that analysis looks for *ko*-predicate *wh*-remnants; Sect. 3.1 proposes that SLCs with *ko*-remnants are genuine sluicing, not pseudosluicing. This will be supported by three diagnostics: restrictions on *pro*-drop (Sect. 3.1.1), ungrammaticality of adjuncts next to the remnant (Sect. 3.1.2), and the interpretation of the sluiced clause (Sect. 3.1.3).

Genuine sluicing is the name given to the ellipsis of a clausal constituent, i.e., everything in the clause except the *wh*-remnant (Ross 1969; Merchant 2001). This phenomenon has an identity requirement, where the elided clausal section must have an identical antecedent within the sentence or discourse.

Many Austronesian languages employ pseudoclefts as the underlying structure of genuine sluicing, including Tagalog (Borise 2016), Malagasy (Potsdam 2007; Paul and Potsdam 2012), Amis (Wei 2011), and Nukuoro (Drummond To appear). On the basis of pseudocleft sluicing in Malagasy, Potsdam (2007) claimed that this language has predicate-sluicing, with deletion of a clausal constituent licensed by the fronting of a *wh*-predicate. This analysis has been largely adopted for sluicing across Austronesian languages; in this paper I test this predication for Tokelauan, which has *wh*-predicates in pseudoclefts as well as other constructions. A predicate-sluicing analysis predicts that all *wh*-predicates can undergo sluicing if the right antecedent conditions are met. I argue this is only true for *ko*-predicates (but not other *wh*-predicates).¹⁴

Tokelauan exhibits SLCs with *ko*-predicates. For these SLCs with *ko*-predicates, I propose the underlying structure is a pseudocleft or a simple equative clause (as these are the only clauses with *ko*-predicates). Which structure is employed depends on the semantic content of the antecedent clause. For a genuine sluicing analysis, I propose that everything except the *ko*-predicate is deleted from the clause at PF.

¹⁴Potsdam (2007) proposes the ellipsis identity in predicate-sluicing is semantic, since the sluiced clause has a *wh*-predicate, but the antecedent need not have the same syntactic structure, ruling out syntactic identity. It is supposed that Tokelauan would have the same semantic identity requirement as Malagasy, as this language does not need the antecedent to contain a (*ko*-)predicate, when the sluiced clause does.

Before turning to diagnostics that support a genuine sluicing analysis for *ko*-predicate SLCs, we present what this analysis looks like for Tokelauan. For a pseudocleft sluiced clause, the *wh*-phrase remnant is the *ko*-predicate that remains overt, while the remainder, the headless relative-clause, is deleted. For the SLC in (32), this paper argues that the underlying structure is a pseudocleft, as given in full in (33).

(32) *SLC with ko-remnant*

Na kiki ia James e he tino, kae e hē kō iloa
 PST kick ABS James ERG INDF person but PRS NEG 1SG know
 pe ko ai.
 COMP PRED who
 ‘Someone kicked James, but I don’t know who.’

(33) *Pseudocleft underlying structure*

Na kiki ia James e he tino, kae e hē kō iloa
 PST kick ABS James ERG INDF person but PRS NEG 1SG know
 pe [TP ko ai [FP[DP te na ia kiki-a ia James]]].
 COMP PRED who DEF PST 3SG kick-CIA ABS James
 ‘Someone kicked James, but I don’t know who it is that kicked James.’

A genuine sluicing analysis of *ko*-predicate SLCs with a simple equative clause is very similar. When the antecedent clause is a simple equative clause like in (34), the underlying sluiced clause can only be a simple equative clause.

(34) *Antecedent clause is a simple equative clause*

Ko Rangī tau uō, kae e hē kō iloa pe
 PRED Rangī DEF.2SG.GEN friend but PRS NEG 1SG know COMP
 ko ai tetahi.
 PRED who else
 ‘Rangī is your friend, but I don’t know who else.’

Consequently, it is proposed that the underlying structure of (34) is (35).

(35) *Simple equative clause underlying structure*

Ko Rangī tau uō, kae e hē kō iloa pe
 PRED Rangī DEF.2SG.GEN friend but PRS NEG 1SG know COMP
 [TP ko ai tetahi [FP[DP au uō]]].
 PRED who else 2SG.GEN friend
 ‘Rangī is your friend, but I don’t know who else is your friend.’

Under a genuine sluicing analysis, for both sluicing examples above (32 and 33, 34 and 35), it is important to note that the remnant is a *ko*-predicate, and both sluiced clauses are equative clauses. The only difference is the content of the subject, which can either be a headless relative-clause, or a simple noun. This difference is determined by the content in the antecedent clause. Both types will be considered *ko*-predicate-slucing, since both have a *ko*-predicate as the *wh*-remnant.

The next section provides support for a genuine sluicing analysis of SLCs with *ko*-remnants, ruling out pseudosluicing, an alternative without clausal deletion.

3.1 SLCs with *ko*-remnants are genuine sluicing, not pseudosluicing

Pseudosluicing, a term coined by Merchant (1998), has been defined in various ways throughout the literature. Originally meant for elliptical clefts (... I don't know what_i it was ~~*t_i*~~ that John cooked), it was later expanded to include simple copula clauses (... I don't know what_i it was *t_i*) (Merchant 2001). This paper adopts the definition that pseudosluicing is the deletion or nonpronunciation of both a copula verb and a pronominal subject, creating an SLC. Pseudosluicing differs from genuine sluicing in that it is not clausal deletion; pseudosluicing involves deletion or nonpronunciation of the copula and subject, via independently available processes in Tokelauan, rather than deletion of everything in the clause barring the *wh*-phrase.¹⁵

Pseudosluicing has been documented in many languages, including Japanese (Merchant 1998; Hiraiwa and Ishihara 2002), Mandarin Chinese (Adams and Tomioka 2012), Korean (Nishiyama et al. 1996), Uzbek (Gribanova 2013; Gribanova and Manetta 2016), Spanish and Brazilian Portuguese (Rodrigues et al. 2009), and Turkish (Hankamer 2010). Pseudosluicing does not require syntactic/semantic identity between the antecedent clause and the sluiced clause. Instead, the requirement for pseudosluicing is the availability of copula deletion and *pro*-drop (Merchant 2001). Tokelauan has *pro*-drop and no overt copula, meaning a pseudosluicing hypothesis is conceivable.

Despite this possibility, the following three sections present diagnostics that demonstrate that SLCs with *ko*-remnants are genuine sluicing, rather than pseudosluicing. This includes Tokelauan restrictions on *pro*-drop (Sect. 3.1.1), the ungrammaticality of adjuncts next to the remnant (Sect. 3.1.2), and the interpretation of the sluiced clause (Sect. 3.1.3).

3.1.1 Restrictions on *pro*-drop

Restrictions on *pro*-drop can be employed to identify *ko*-sluicing as genuine sluicing. A prediction of the pseudosluicing analysis is that if *pro*-drop is unable to occur for certain pronouns, pseudosluicing constructions which would necessitate one of those pronouns being covert should be ungrammatical. In other words, if genuine sluicing occurs, the grammaticality of a sluice should not depend on the pronoun elided. In Tokelauan, third-person pronouns are optionally omitted, as illustrated in (36).

- (36) *Pro-drop of third-person pronoun*
 Q: Ko ia na fano ki Hamoa?
 TOP 3SG PST go.SG to Samoa
 'Did he go to Samoa?'
 A: Io, (ko ia) na fano ki Hamoa.
 yes TOP 3SG PST go.SG to Samoa
 'Yes, (he) went to Samoa.'

In contrast, first-person pronouns resist *pro*-drop, as illustrated in (37).

¹⁵Pseudosluicing has also been used to describe TP-deletion of a cleft or copula clause (Rodrigues et al. 2009; Barros 2014). Under this definition, pseudosluicing is a type of genuine sluicing. This paper's definition of pseudosluicing does not involve genuine sluicing.

- (37) *No pro-drop of first-person pronouns*
 Q: Ko koe na fano ki Hamoa?
 TOP 2SG PST go.SG to Samoa
 ‘Did you go to Samoa?’
 A: Io, *(ko au) na fano ki Hamoa.
 yes TOP 1SG PST go.SG to Samoa
 ‘Yes, I went to Samoa.’

Therefore, pseudosluicing with *pro-drop* would not be grammatical if a first-person pronoun must be dropped. In (38), the antecedent is a simple equative clause with a first-person pronominal; we therefore assume a first-person pronominal exists in the sluiced clause, as shown in (39).

- (38) *First-person pronoun dropped from the sluiced clause*
 Context: playing the game ‘20 questions’
 Ko au ko he mea, kae e hē iloa e Viliamu
 TOP 1SG PRED INDF thing COMP TAM NEG know ERG Viliamu
 pe ko he ā.
 COMP PRED INDF what
 ‘I am something, but Viliamu doesn’t know what.’
- (39) *Extended sluice with first-person pronoun*
 Context: playing the game ‘20 questions’
 Ko au ko he mea, kae e hē iloa e Viliamu
 TOP 1SG PRED INDF thing COMP TAM NEG know ERG Viliamu
 pe ko he ā au.
 COMP PRED INDF what 1SG
 ‘I am something, but Viliamu doesn’t know what I am.’

In a pseudosluicing analysis, the first-person pronoun would have to undergo *pro-drop*, which is not allowed in the language. Since (38) is grammatical, we assume that clausal deletion has removed the first-person pronoun (and the rest of the clause) from the sluiced clause. Consequently, I propose that *ko*-predicate-slucing is genuine sluicing, not pseudosluicing.

3.1.2 Adjuncts

There is another way we can demonstrate genuine sluicing is occurring, by showing that apart from the remnant, all the material in the sluiced clause is deleted, not just the subject. This we can do by looking at whether adjuncts can be overt next to the *wh*-remnant.

The syntactic position of adjuncts in Polynesian languages is debated (Chung 2005; Medeiros 2013; Sabbagh 2013; Massam 2020; van Urk 2022). On the surface, they appear clause-finally, after the verb and after any arguments. This paper adopts the analysis of Niuean (Massam 2020) where adjuncts are generated below the landing site of the predicate and above *vP* (the predicate projection that raises). For Tokelauan, this will mean adjuncts are generated above *vP/KoP* and below *SpecTP*. I leave more specific positioning to further research.

Genuine sluicing predicts that everything below the predicate will be deleted, not just the single argument that follows these *wh*-predicates. As such, if genuine sluicing occurs, adjuncts should be deleted. If pseudosluicing (*pro*-drop) was occurring, we would expect only the pronominal argument to be deleted, stranding both the *wh*-predicate and any adjuncts. In reality, adjuncts are unable to appear after a *ko*-predicate remnant, indicating clausal deletion (40). This supports a genuine sluicing analysis of SLCs with *ko*-remnants.¹⁶

(40) *Adjuncts do not survive deletion*

- a. **Ko William na kakau (ma te mea lakau) ki he koga kae e*
 TOP William PST swim with DEF thing stick to INDF place but PRS
hē kō iloa pe ko fea ma te mea lakau.
 NEG 1SG know COMP PRED where with DEF thing stick
 Intended: ‘William swam somewhere (with a stick), but I don’t know
 where with a stick.’
- b. **Na kai e John te mea (i te Aho Hā), kae e hē kō*
 PST eat ERG John DEF thing LOC DEF day-sun but PRS NEG 1SG
iloa pe ko he ā i te Aho Hā.
 know COMP PRED INDF what LOC DEF day-sun
 Intended: ‘John ate something (on Sunday), but I don’t know what on
 Sunday.’

3.1.3 Interpretation of the sluiced clause

A third diagnostic that indicates sluicing with *ko*-predicates is genuine sluicing is the interpretation of the sluiced clause. In genuine sluicing, the semantic content of the elided material is maintained even after deletion. Therefore, in the example below, we expect the interpretation of the sluiced clause to be a full clausal reading, where the *wh*-phrase *fea* ‘where’ correlates with the location of the event of Rangi seeing the dog. This is indeed the case.

(41) *Interpretation of the embedded clause matches a clausal constituent*

- Na kite-a te maille e Rangi i he mea,*
 PST see-CIA DEF dog ERG Rangi LOC INDF place
kae e hē kō iloa pe ko fea.
 but PRS NEG 1SG know COMP PRED where
 ‘Rangi saw the dog somewhere, but I don’t know *where is the place that*
he saw it.’
 *‘Rangi saw the dog_i somewhere, but I don’t know *where it_i is.*’

¹⁶It must be noted that the adjunct diagnostic must be considered tentative. Vera Gribanova (p.c.) notes that things that are stranded outside of local ellipsis sites tend to have a contrastive quality, while the adjuncts in example (40) do not (although it may be argued that the antecedent lacking an adjunct and the sluiced clause containing one *is* contrastive). However, (40a) directly compares with (49a), which also contains identical adjuncts in both clauses, but is grammatical. On the other hand, (49b) has contrasting adjuncts in the two clauses (*last week...on Sunday*), and therefore does not directly compare to those examples in (40). This area needs further research to strengthen the diagnostic.

We therefore assume the nonelided structure of (41) is (42), with a full pseudocleft clause.

- (42) *Interpretation of the embedded clause matches a clausal constituent*
 Na kite-a te maile e Rangi i he mea, kae e hē
 PST see-CIA DEF dog ERG Rangi LOC INDF place but PRS NEG
 kō iloa pe ko fea te na kite-a ai te maile e Rangi.
 1SG know COMP PRED where DEF PST see-CIA ANP DEF dog ERG Rangi
 ‘Rangi saw the dog somewhere, but I don’t know *where is the place that he saw it.*’

In a *pro*-drop analysis, we would expect the interpretation to be one where the dropped pronoun relates to one of the nominals from the antecedent, such as the dog. This interpretation is unobtainable from the sluice in (41). Therefore, it is proposed that this SLC exhibits genuine sluicing. We will see in Sect. 4.1.3 an example of pseudosluicing where the reverse interpretation obtains.¹⁷

We have now provided three diagnostics that support a genuine sluicing analysis for *ko*-predicate-slucing, by ruling out the alternative pseudosluicing. Next, we turn to SLCs with other wh-predicate remnants, and propose that these are pseudosluicing, instead of genuine sluicing.

4 Sluicing-like constructions with other wh-predicates

In addition to *ko*-predicates, wh-phrases can appear as two other types of predicate: interrogative locative PPs and interrogative verbs, as discussed in Sects. 2.1.3 and 2.1.4, respectively. Under Potsdam’s (2007) predicate-slucing model, the key requirement for the sluiced remnant is that it is a predicate. This predicts that these other wh-predicates should also be able to underlie genuine sluicing.

It is true that PP and verbal predicates may appear as the remnant in SLCs (43 and 44). A potential analysis for these SLCs is that they are genuine sluices, where a clausal constituent is deleted and only the wh-predicate remains. However, I propose that these constructions are examples of pseudosluicing, not genuine sluicing. Consequently, it will be argued that Tokelauan exhibits only *ko*-predicate-slucing, not the more permissive predicate-slucing.

This section lays out SLCs with PP and verbal wh-remnants, and how a pseudosluicing analysis looks for them. We then turn to showing that these SLCs are pseudosluicing, and not genuine sluicing (Sect. 4.1), with diagnostics supporting this including restrictions of *pro*-drop (Sect. 4.1.2), the ability for adjuncts to

¹⁷Theoretically, a pseudosluicing analysis could have the *pro*-dropped pronoun referring to *he mea* ‘somewhere’, which would make the pseudosluicing interpretation the same as the genuine sluicing interpretation. However, my consultant is clear that this reading is not available from the pseudosluicing example in Sect. 4.1.3. This may be a referential issue; *pro*-dropped pronouns may not be able to refer to a nonreferential noun, like *he mea* ‘somewhere’. We leave the explanation for why this contrast occurs to further research. What is important is that the contrast allows us to use this as a diagnostic to determine between genuine sluicing and pseudosluicing.

appear in the embedded clause (Sect. 4.1.3), and the interpretation of the SLC (Sect. 4.1.3).

- (43) *Sluicing-like construction with locative PP predicate*
 Na kite-a e Rangī te maile i he mea,
 PST see-CIA ERG Rangī DEF dog LOC INDF place
 kae e hē kō iloa pe nae i fea.
 but PRS NEG 1SG know COMP TAM LOC where
 ‘Rangī saw the dog somewhere, but I don’t know where.’
- (44) *Sluicing-like construction with verbal predicate*
 Na fano ia William ki te motu,
 PST go.SG ABS William to DEF island
 kae e hē kō iloa pe na (fano) vēhea.
 but PRS NEG 1SG know COMP PST go.SG how
 ‘William went to the island, but I don’t know how.’

Pseudosluicing involves *pro*-drop of a pronominal subject in the embedded clause. Therefore, for a pseudosluicing analysis, the unelided versions of the SLCs above would appear as follows:

- (45) *Sluicing-like construction with locative PP predicate extended*
 Na kite-a e Rangī te maile i he mea,
 PST see-CIA ERG Rangī DEF dog LOC INDF place
 kae e hē kō iloa pe ko ia nae i fea.
 but PRS NEG 1SG know COMP TOP 3SG TAM LOC where
 ‘Rangī saw the dog somewhere, but I don’t know where he was.’
- (46) *Sluicing-like construction with verbal predicate extended*
 Na fano ia William ki te motu,
 PST go.SG ABS William to DEF island
 kae e hē kō iloa pe ko ia na fano vēhea.
 but PRS NEG 1SG know COMP TOP 3SG PST go.SG how
 ‘William went to the island, but I don’t know how he went.’

Evidence for pseudosluicing is presented next.

4.1 SLCs with PP and verbal wh-remnants are pseudosluicing, not genuine sluicing

The same three diagnostics from Sects. 3.1.1 to 3.1.3 can be employed to identify the deletion method in SLCs with PP and verbal wh-remnants. In the following sections, it will be demonstrated that these SLCs adhere to the restrictions of *pro*-drop in the language (Sect. 4.1.2), adjuncts are grammatical next to the wh-remnant (Sect. 4.1.3), and the interpretation of the SLC matches a pronominal underlying structure (Sect. 4.1.3).

4.1.1 Restrictions on *pro*-drop

As illustrated in Sect. 3.1.1, Tokelauan allows *pro*-drop for third-person pronouns, but not for first-person pronouns. Consequently, when a first-person pronoun must be deleted from the target clause in an SLC with a PP or verbal wh-remnant, we predict the resulting SLC will be ungrammatical, if pseudosluicing (*pro*-drop) is occurring. This transpires, as illustrated in (47).

- (47) *No sluicing-like constructions that require pro-drop of first-person pronoun*
- a. *Ko au na moe ananafi, kae e hē iloa e Viliamu pe
TOP 1SG PST sleep yesterday but PRS NEG know ERG Viliamu COMP
nae i fea.
PST LOC where
Intended: ‘I slept yesterday, but Viliamu doesn’t know where (I was).’
 - b. *Ko au nae tauale ananafi, kae e hē iloa e Viliamu
TOP 1SG TAM sick yesterday but TAM NEG know ERG Viliamu
pe vēhea.
COMP.TAM how
Intended: ‘I was sick yesterday, but Viliamu doesn’t know how (I am).’

The extended versions of these SLCs, with the first-person pronouns overt, are grammatical (48).

- (48) *Extended sluicing-like constructions with first-person pronoun*
- a. Ko au na moe ananafi, kae e hē iloa e Viliamu pe
TOP 1SG PST sleep yesterday but PRS NEG know ERG Viliamu COMP
ko au nae i fea.
TOP 1SG PST LOC where
‘I slept yesterday, but Viliamu doesn’t know where I was.’
 - b. Ko au nae tauale ananafi, kae e hē iloa e Viliamu
TOP 1SG TAM sick yesterday but TAM NEG know ERG Viliamu
pe nae vēhea au.
COMP TAM how 1SG
‘I was sick yesterday, but Viliamu doesn’t know how I was.’

The ungrammaticality of SLCs with PP and verbal wh-remnants that require first-person *pro*-drop supports these SLCs being pseudosluicing with *pro*-drop, rather than genuine sluicing.

4.1.2 Adjuncts

As illustrated in Sect. 3.1.2, adjuncts do not survive deletion in genuine sluicing. Therefore, adjuncts can be used to identify pseudosluicing. In genuine sluices, such as those with *ko*-predicates, adjuncts are deleted in clausal ellipsis, and as such cannot be present following the wh-remnant. Instead, if *pro*-drop (pseudosluicing) is occurring in the SLCs, we predict that adjuncts may be overt following the remnant wh-phrase. The latter situation transpires with PP and verbal wh-remnants; adjuncts may remain in the embedded clause, as illustrated in (49).

(49) *Adjuncts survive deletion*

- a. Ko te maile na vili ma te mea lakau, kae e hē kō iloa
 TOP DEF dog PST run with DEF thing stick but PRS NEG 1SG know
 pe i fea ma te mea lakau.
 COMP.TAM LOC where with DEF thing stick
 ‘The dog ran away with a stick, but I don’t know where (it is) with the stick.’
- b. Ko William na fano faka-fia ki te fenua i te vaiaho kua
 TOP William PST go.SG CAUS-many to DEF island in DEF week TAM
 teka, kae e hē kō iloa pe na vēhea i te Aho Hā.
 elapse but PRS NEG 1SG know COMP PST how LOC DEF day-sun
 ‘William went to the island many times last week, but I don’t know how (it was) on Sunday.’

As adjuncts can follow the remnant, a genuine sluicing analysis is not suitable for these SLCs.

4.1.3 Interpretation of the sluiced clause

Another piece of evidence that SLCs with PP and verbal wh-remnants exhibit pseudosluicing is the interpretation of the embedded clause. The interpretation of the embedded clause in these SLCs matches a locative PP/verbal predicate clause with *pro-drop*. In sentences with ellipsis, the semantic content is obtainable even after deletion. In (50), the embedded clause refers to the location of the dog, which fits with an underlying locative PP predicate clause ‘...where is the dog/it’. A genuine sluicing interpretation would be ‘...where is the place that Rangi saw the dog/it’, as seen in Sect. 3.1.3, but this is not obtainable from the SLC in (50).

(50) *Interpretation of the embedded clause matches pro-drop*

- Na kite-a te maile e Rangi i he mea,
 PST see-CIA DEF dog ERG Rangi LOC INDF place
 kae e hē kō iloa pe i fea.
 but PRS NEG 1SG know COMP.TAM LOC where
 ‘Rangi saw the dog_i somewhere, but I don’t know *where it_i is*.’
 *‘Rangi saw the dog somewhere, but I don’t know *where is the place that he saw it*.’

We therefore assume the structure of (50) is that of (51), with the third-person pronoun dropped.

(51) *Sluicing-like construction with locative PP predicate extended*

- Na kite-a e Rangi te maile i he mea,
 PST see-CIA ERG Rangi DEF dog LOC INDF place
 kae e hē kō iloa pe ko ia nae i fea.
 but PRS NEG 1SG know COMP TOP 3SG TAM LOC where
 ‘Rangi saw the dog_i somewhere, but I don’t know where he_i was.’

Sections 4.1.1 to 4.1.3 have provided evidence against a genuine sluicing analysis for SLCs with PP and verbal wh-remnants. Instead, it is proposed that PP and verbal predicates can only occur in pseudosluicing constructions. If Tokelauan were to exhibit predicate-sluing in its most permissive form (Potsdam 2007), these non-*ko*-predicates should be able to undergo genuine sluicing, just as *ko*-predicates can. Consequently, this paper claims that Tokelauan genuine sluicing is restricted to *ko*-predicate-sluing. The next section presents an analysis.

5 *Ko*-predicate-sluing

To account for the distribution of genuine sluicing and pseudosluicing in Tokelauan, we first turn to the structure of predicates. I propose that *ko*-predicates are structurally different from other predicates, and the E-feature in genuine sluicing (Merchant 2001) targets only *ko*-predicates.

The proposal is as follows. A DP may be merged with a case projection (forming an argument) or a *ko* projection, forming a predicate. We leave the exact nature of this *ko* projection unstated, as Polynesian literature remains in conflict over this question (Seiter 1980; Cook 1999; Pearce 1999; Baker 2003; Massam et al. 2006; Clemens 2014); if, for example, *ko* is a preposition (Massam et al. 2006), we would argue that it heads a PP. Without entering into the debate as to which lexical category the *ko* particle is, we can state that it merges with a DP to form a predicate. We call this constituent a KoP.

A KoP has a [+pred] feature, as *ko*-predicates undergo movement to a clause-initial position, just like other predicates in the language. A KoP also has a [+ko] feature. As mentioned above, we leave the exact nature of this [+ko] feature to future research. However, it is this [+ko] feature that is targeted for sluicing.

On the other hand, predicate PPs and verbs are inside a vP projection. When a PP or a VP is merged with v° , a predicate vP is formed. Only verbs and PPs can merge with v° to form a vP; they cannot merge with *ko* to form a KoP. This means *ko*-predicates and VP/PP predicates are syntactically different from one another at the most basic phrasal level.¹⁸

Section 5.1 provides support for the structure of Tokelauan predicates outlined above, while Sect. 5.2 presents an analysis of *ko*-predicate-sluing in Tokelauan based on these structural differences.

5.1 Structure of Tokelauan predicates

There is independent evidence for a structural difference between *ko*-predicates and other predicates, apart from the obvious presence/absence of *ko*. This is demonstrated

¹⁸Douglas (2018) adopts a similar analysis of nominal and verbal predicates in Māori. He argues that verbal predicates are merged with a vP phrase, while nominal predicates are merged with a different phrase (Douglas does not name this projection, but let us call it FP). Consequently, nominal and verbal predicates merged with different functional projections. However, this paper differs from Douglas in saying the projection targeted in predicate-movement is the higher projection (vP or FP), rather than the lower projection (VP or DP).

by the distribution of *preverbs*, such as *ata* ‘can’ and *fia* ‘want’. *Preverbs* are predicate modifiers that directly precede the main predicate constituent. Massam (2020) proposes that *preverbs* in Niuean are vP modifiers. This means the *preverb* is in v°, and any predicate with a vP projection may have a *preverb*.¹⁹ In predicate-movement, the vP fronts, which results in the *preverb* preceding the main verb on the surface. I adopt the same analysis of *preverbs* for Tokelauan.

In Tokelauan, *preverbs* can modify PP predicates (52) and verbal predicates (53), which suggests that these predicates have a vP projection.

(52) *Preverbs with PP predicates*

- a. E *ata* i kinei ia Rangi.
TAM can LOC here ABS Rangi
‘Rangi might be here.’
- b. E *fia* i kinei ia Rangi.
TAM want LOC here ABS Rangi
‘Rangi wants to be here.’

(53) *Preverbs with verbal predicates*

- a. Kua *ata* tele te tavale.
TAM can move DEF car
‘The car can move.’
- b. E *fia* tuki e John ia Rangi.
TAM want hit ERG John ABS Rangi
‘John wants to hit Rangi.’

In contrast, *preverbs* cannot modify *ko*-predicates, whether preceding or following the *ko* particle (54 and 55).

(54) *No preverbs with ko-predicates*

- a. Ko (**ata*) he tautai te tamaloa.
PRED can INDF fisherman DEF man
Intended: ‘The man can be a fisherman.’
- b. Ko (**fia*) he tautai te tamaloa.
PRED want INDF fisherman DEF man
Intended: ‘The man wants to be a fisherman.’

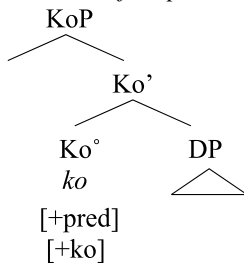
(55) *No preverbs with ko-predicates*

- a. (**Ata*) ko he tautai te tamaloa.
can PRED INDF fisherman DEF man
Intended: ‘The man can be a fisherman.’
- b. (**Fia*) ko he tautai te tamaloa.
want PRED INDF fisherman DEF man
Intended: ‘The man wants to be a fisherman.’

¹⁹For the position of *preverbs*, Massam (2020) alternates between vP and pvP (*preverb* projection). However, the difference is minor, since in both, the *preverb* is considered a v° and is the highest particle in the predicate projection that undergoes predicate-movement. For the sake of simplicity, this paper will adopt the model that *preverbs* are generated in vP.

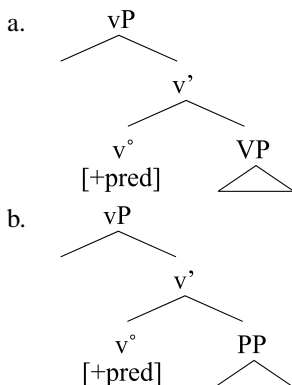
Since *preverbs* are illicit in these structures, I propose that *ko*-predicates do not have a vP projection. This supports the structural difference between verbal/PP predicates and *ko*-predicates proposed above. The representation in (56) illustrates the structure of *ko*-predicates. A DP merges with *ko* to form a KoP projection. The KoP is a predicate, and consequently has a [+pred] feature, as well as a [+ko] feature.

(56) *Structure of ko-predicates*



In contrast, VPs and PPs merge with a v° to create a vP predicate. This has a [+pred] feature, but no [+ko] feature. These structures are presented in (57).

(57) *Structure of verbal and PP predicates*



5.2 Analysis of *ko*-predicate-sluing

Having proposed a model for Tokelauan predicates, we can now turn to a sluing analysis. Section 3 demonstrated that SLCs with *ko*-predicates are genuine sluing, while Sect. 4 provided evidence that verbal and prepositional predicates cannot undergo genuine sluing. This section presents a formal analysis of how genuine sluing occurs: sluing takes place when a *ko*-predicate raises to a clause-initial position (SpecTP). An E-feature in TP licenses the deletion of the remainder.

Merchant (2001) argues that sluing is effected by a syntactic feature or group of features, which he labels an E-feature, which resides in the head adjacent to the

raised wh-phrase (see also Aelbrecht 2010). Merchant (2001) proposes that the E-feature bundle consists of [+wh] and [+Q] features, which require overt checking by an interrogative wh-phrase. The E-feature is only checked when an interrogative wh-phrase overtly raises to the specifier of the functional projection hosting the E-feature. The head that hosts the E-feature depends on the movement type that raises the wh-phrase. In English, wh-movement raises the wh-phrase to SpecCP, meaning the E-feature sits in C° (Lobeck 1995; Merchant 2001; Aelbrecht 2010).²⁰ In Hungarian, Van Craenenbroeck and Lipták (2006) argue that focus-movement raises the wh-phrase, meaning the E-feature resides on Foc°. The E-feature licenses the deletion of the head's complement. For example, for languages where the E-feature resides on C°, the functional projection below CP, TP, is unpronounced at PF (Merchant 2001).

For Tokelauan, I adopt the model that an E-feature licenses the deletion in genuine sluicing. When a *ko*-predicate raises, it checks the E-feature, and if the necessary identity conditions are satisfied, deletion occurs. In Tokelauan, all predicates raise to SpecTP to check an EPP[+pred] feature. If we were to say predicate-sludging occurs due to the ordinary predicate-fronting that exists in the language, the E-feature would have [+pred] specification, and we would expect all wh-predicates to sluice. In reality, only *ko*-predicates can be the sluicing remnant, meaning we must differentiate between verbal/prepositional predicates and *ko*-predicates.

This problem is resolved with the model of Tokelauan predication proposed above. The E-feature is on T°, alongside the EPP[+pred] feature. Verbal and PP predicates have a vP projection, which has a [+pred] feature. *Ko*-predicates have a KoP projection, with a [+pred] feature and a [+ko] feature. Both types of predicate raise to SpecTP to check the EPP[+pred] feature. The E-feature that triggers sluicing is a [+ko] feature, which verbal and prepositional predicates do not have. Only *ko*-predicates have the [+ko] feature, and consequently only *ko*-predicates can check the E-feature, triggering sluicing.

A prediction from this analysis relates to the lack of interrogative features in the E-feature bundle. In the E-feature model of Merchant (2001), the E-feature consisted of [+wh] and [+Q] features. For the E-feature in Tokelauan, we have posited just [+ko]. Without [+wh] and [+Q] features, we make the prediction that non-wh *ko*-predicates should be able to sluice. Under the current analysis, the only requirement is that the predicate is a *ko*-predicate (which therefore has a [+ko] feature). Other authors have argued that if the E-feature does not include [+wh], then non-wh-constituents can also occur as sluicing remnants (Van Craenenbroeck and Lipták 2006; Grebenyova 2006; Hoyt and Teodorescu 2012; Lipták and Aboh 2013). Consequently, we expect that non-wh-predicates which are *ko*-predicates like that in (58) can underlie sluicing.

²⁰Note that Lobeck (1995) claims the wh-feature licenses sluicing. Merchant's E-feature is simply an extension of this analysis.

- (58) *Non-wh pseudocleft*
Ko John te na kiki e Rangi.
 PRED John DEF PST kick ERG Rangi
 ‘It is John who Rangi kicked.’

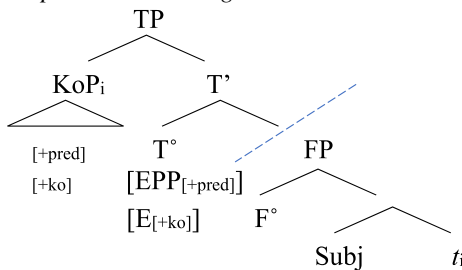
As (59) demonstrates, sluicing a non-wh-predicate is possible in Tokelauan, with the proposed extended version given in (60). It is therefore possible to claim that the E-feature is unspecified for [+wh] or [+Q].

- (59) *Non-wh sluicing remnant*
 Na kiki e Rangi he tino, kae e hē kō iloa pe
 PST kick ERG Rangi INDF person but TAM NEG 1SG know COMP
ko John.
 PRED John
 ‘Rangi kicked someone, but I don’t know if it was John.’

- (60) *Non-wh sluicing remnant extended*
 Na kiki e Rangi he tino, kae e hē kō iloa pe
 PST kick ERG Rangi INDF person but TAM NEG 1SG know COMP
ko John te na kiki e Rangi.
 PRED John DEF PST kick ERG Rangi
 ‘Rangi kicked someone, but I don’t know if it was John who Rangi kicked.’

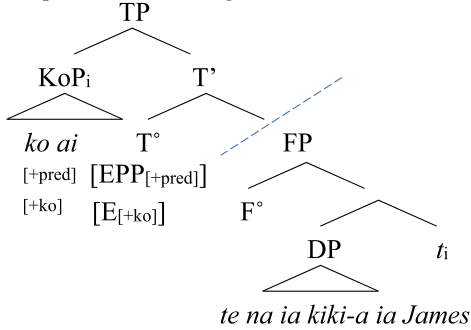
We may now define predicate-slucing in Tokelauan as *ko*-predicate-slucing. As the E-feature is on T°, deletion of the projection below TP occurs. In our model, FP is deleted, which includes the absolutive subject. A schema is given in (61).

- (61) *Ko-predicate-slucing in Tokelauan*



Putting this model into practice for a real Tokelauan sluice (62), we derive genuine sluicing as in (63).

- (62) *Ko-predicate-slucing in Tokelauan*
 Na kiki ia James e he tino, kae e hē kō iloa
 PST kick ABS James ERG INDF person but PRS NEG 1SG know
 pe [TP [KOP *ko* ai]_i] [FP [DP ~~*te na ia kiki a ia James*~~ *t_i*]].
 COMP PRED who DEF PST 3SG kick-CIA ABS James
 ‘Someone kicked James, but I don’t know who.’

(63) *Ko-predicate-sludging in Tokelauan*

Similar to Merchant (2001), the analysis presented here is that sluicing occurs when a constituent checks the E-feature by overtly moving to a specifier position in the clause periphery. However, for Tokelauan, instead of wh-movement, predicate-movement raises the sluicing remnant, and the E-feature licenses deletion.

6 Ko-sludging is not relative-clause sludging

This paper has proposed a genuine sluicing analysis for SLCs with *ko*-remnants. The analysis given has an E-feature licensing the deletion of an FP constituent that excludes the *ko*-predicate. In another Polynesian language, Nukuoro, it has been proposed that like Tokelauan, genuine sluicing occurs with an underlying pseudocleft structure (Drummond [To appear](#)).²¹ However, unlike the analysis presented in Sect. 5, Drummond proposes that only the relative-clause TP in the pseudocleft is deleted in sluicing. This section rules a relative-clause-sludging analysis out for Tokelauan, strengthening the proposal laid out in Sect. 5.

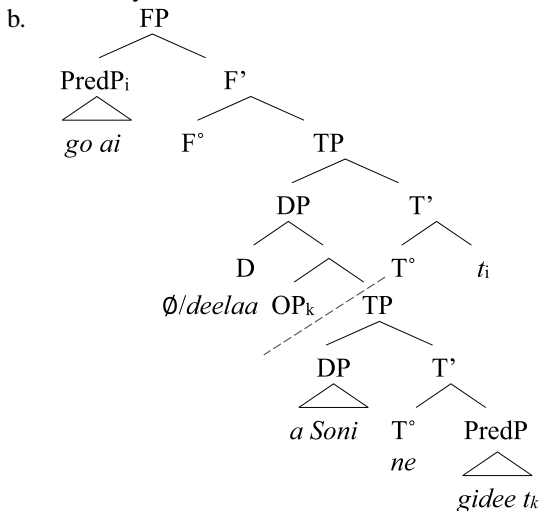
Drummond ([To appear](#)) demonstrates that Nukuoro sluices are generated from pseudoclefts. Drummond proposes that the pseudocleft predicate raises to a high projection (FP), which is above TP, while the headless relative-clause subject is in SpecTP. Note that unlike Tokelauan, Nukuoro pseudoclefts do not exhibit determiners introducing the headless relative-clause. In sluicing, Drummond argues that only the relative-clause TP is deleted, not the entire headless relative-clause (for relative-clause ellipsis, see Rodrigues et al. 2009; Lipták and Aboh 2013; Lipták 2015). Consequently, it is argued that the sluice given in (64a) is formed in the manner presented in (64b). Drummond argues for sluicing of the relative TP because the relative head *deelaa* may be overt following the wh-phrase, implying that only the relative TP is deleted, not the full relative-clause.²²

²¹Drummond ([To appear](#)) does not discuss simple equative clauses, although it may be possible that these too underlie sluicing in Nukuoro.

²²With *deelaa*, the sluiced clause now looks like a copula clause (with a wh-predicate followed by a demonstrative subject), and thus it could be claimed Nukuoro simply exhibits pseudosluicing, with *pro*-drop of *deelaa* (Middleton 2024a). Drummond ([To appear](#)) argues against this analysis, noting that Nukuoro sluicing may exhibit sprouting and else-modification, which is not expected for pseudosluicing (Merchant 2001).

(64) *Nukuoro relative-clause sluicing* (Drummond [To appear](#), examples (13) and (14))

- a. Soni ne gidee dahi dangada, gai au e dee iloo be go
 Johnny PFV see one person but 1SG PST NEG know COMP FOC
 ai (deela).
 who DEM.SG
 ‘Johnny saw someone, but I don’t know who.’



The following section rules out relative-clause sluicing for Tokelauan. Two diagnostics are posited: the inability of the headless relative-clause determiner to be part of the sluicing remnant, and the ungrammaticality of sluicing remnants with genitive nominals.

6.1 Diagnostics against relative-clause sluicing for Tokelauan

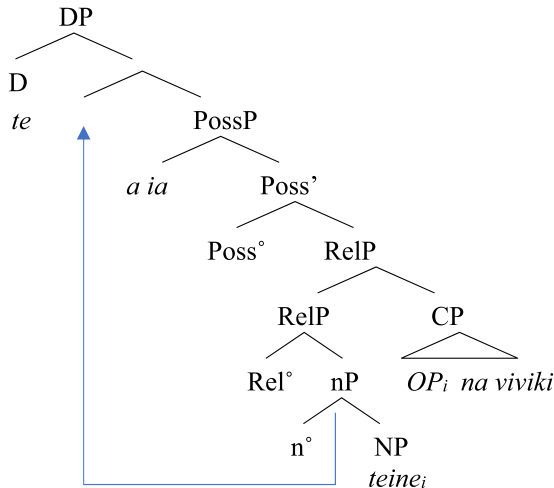
An analysis where only the relative-clause TP is deleted, and not the entire headless relative-clause constituent, can be ruled out in Tokelauan. Tokelauan pseudoclefts contain an overt determiner and a null head. The null head will not show up in sluicing regardless of whether the relative TP or the whole subject is deleted. However, the determiner is outside of the relative TP, and therefore would be expected to remain overt if only the relative TP was deleted. As (65) illustrates, this is not the case. The phrase structure in (66) indicates how sluicing in Tokelauan would appear if only the relative TP was deleted. The determiner is above the deletion line, meaning the sentence in (65) would be grammatical.

(65) *Sluicing with pseudocleft determiner overt*

- *Na kiki ia James e he tino,
 PST kick ABS James ERG INDF person
 kae e hē kō iloa pe ko ai te.
 but TAM NEG 1SG know COMP PRED who DEF
 Intended: ‘Someone kicked James, but I don’t know who.’

(genitive) projection is merged in a structurally superior position, with the genitive nominal merged in the specifier position of this projection (PossP). Topping the possessive phrase is a DP. To obtain the (optional) head-initial ordering, Herd et al. propose that the head noun may prepose around the genitive to a higher specifier position. The structure of (67b) is given in (69).

- (69) *Genitive relative structure* (adapted from Herd et al. 2011:1256, 1258)



As a result, the genitive nominal constituent is structurally outside of the relative-clause TP. A sluice that only deletes the relative-clause TP is predicted to leave the genitive nominal overt, as it is outside of the deletion site. In Tokelauan, this is ungrammatical, with only the wh-phrase remaining overt in the sluicing of genitive relative pseudoclefts (70). Since genitive-marked nominals can bear stress, (70) cannot be ruled out by a stress-related argument (e.g., Sprouse 2006; Saez 2011).

- (70) *Sluicing cannot have genitive nominal in the remnant*
 Na kai te mea e John, kae e hē kō iloa
 PST eat DEF thing ERG John but TAM NEG 1SG know
 pe ko he ā (*t-a John).
 COMP PRED INDF what DEF-GEN John
 ‘John ate something, but I don’t know what.’

This provides further evidence that everything other than the *ko*-predicate is deleted under sluicing, rather than just the relative-clause TP.

This section has briefly ruled out the possibility that *ko*-predicate-slucing in Tokelauan is relative-clause TP sluicing, as argued for Nukuoro. Instead, we retain the model that has the constituent below TP (called FP) deleted in genuine sluicing structures. That elided FP constituent may contain a complex DP (a headless relative-clause) or a simple DP (simple equative clause). This paper has termed this type of sluicing *ko*-predicate-slucing.

7 Conclusion

Potsdam (2007) was the first to claim that the sluicing remnant in some languages is a predicate, with an underlying pseudocleft structure. Potsdam asserts that movement of a *wh*-predicate to a clause-initial position checking the E-feature licenses deletion of the remainder. Without any further limits, this predicts that if one such *wh*-predicate may be the sluicing remnant, *all* *wh*-predicates should also be able to be sluicing remnants. This paper has examined Tokelauan, a language where only one type of predicate is able to be a genuine sluicing remnant, meaning we obtain a restricted type of predicate-sluicing.

Tokelauan has several structures with *wh*-predicates, including simple equative clauses, pseudoclefts, locative PP predicates, and verbal predicates. This means the language provides a testing ground for the predicate-sluicing concept. While all types of *wh*-phrase can occur in sluicing-like constructions, only *ko*-predicates underlie genuine sluicing. For prepositional and verbal *wh*-phrases, pseudosluicing with *pro*-drop is available, but not genuine sluicing with clausal deletion.

This paper proposes that Tokelauan has *ko*-predicate-sluicing, where only *ko*-predicates can be genuine sluicing remnants. Verbal and prepositional predicates are inside *v*Ps, while *ko*-predicates are in *Ko*Ps. Both *v*Ps and *Ko*Ps have a [+pred] feature. Therefore, all predicates will raise to SpecTP due to the normal predicate-fronting that occurs in the language. However, only *Ko*Ps have a [+ko] feature. This paper proposes that the sluicing E-feature is [+ko] and resides on T°. It is checked by the movement of a constituent with a [+ko] feature to SpecTP. Only *ko*-predicates have a [+ko] feature, so only *ko*-predicates can participate in genuine sluicing. Predicate-sluicing has not been widely addressed in the literature; this paper sheds light on the nuances of this phenomenon in a predicate-initial language that exhibits both genuine sluicing and pseudosluicing.

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Declarations

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