

## On the Semantics and Pragmatics of '(An)other' in Finnish: Comparing *toinen* and *muu*

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### 1 Introduction

Broadly speaking, when '(an)other' modifies a noun as in (1), it triggers the presupposition that there already exists a salient occurrence of that entity in context. Thus, for a speaker to felicitously use 'another' in (1), a bag has already been mentioned in prior discourse or is salient in the non-linguistic context (e.g. has been handed over by the cashier in the check-out line):

(1) Could I get another bag? (example modified from Gianollo & Mauri 2020)

However, as researchers investigating Indo-European languages such as English and Italian have noted, '(an)other' exhibits an ambiguity: On one interpretation, the speaker's communicative intent is simply to ask for an additional bag, i.e., another bag in addition to one(s) that they already have (1a)—a further token, basically. Let's call this the *additive reading*. But there also exists an interpretation where the speaker is asking for another bag that differs in some relevant way from a bag they already have—a different type/kind of bag. For example, maybe the one I was given before is torn (1b), or too flimsy for the heavy things I need to put in it. Let's call this the *non-identity reading*. Under this construal, I want a bag that is not identical to the one that is already salient in the context: I would like another bag that differs from it in some relevant way. As a simple starting point, one might think of the additive and non-identity readings as involving (i) additivity and (ii) additivity plus contrast, respectively. More details about these construals are provided in Section 1.1, and throughout the chapter.

(1) a. *Additive reading*

Ah, I can't fit all of the books in here. Could I get another bag?

b. *Non-identity reading*

Ah, it looks like this bag is torn. I don't want my new books to fall out. Could I get another bag?

In this paper, I provide a systematic investigation of the semantics and pragmatics of two lexical items in Finnish (Finno-Ugric) that may initially seem like they both map onto '(an)other' in English, namely *toinen* and *muu*, with a focus on the availability (or lack thereof) of the additive and non-identity readings. Based on corpus examples and native speaker judgments, I show that these two words differ systematically in their meaning, as well as in terms of what aspects of their meaning are semantic versus pragmatic.

I propose that *toinen* has a core additive meaning, derivable from anaphoricity and distinctness, and I propose to treat non-identity interpretations as triggered by discourse-contextual factors involving contrast. Furthermore, given that *toinen* also has an ordinal meaning ('second'), I argue that the Strongest Meaning Hypothesis (e.g. Dalrymple et al. 1998) explains why additive readings of *toinen* are constrained to also mean 'second.'

For the other lexical item, *muu*, I argue that it has a different range of interpretations that are best analyzed as having an entirely different source, namely the process of set complementation. In sum, I argue that the core meaning of *toinen* is additive, while the meaning of *muu* makes use of exclusion. Although this paper is only an initial exploration of these issues in Finnish, and much remains to be done, this work aims to broaden the empirical basis to include data from a typologically distinct language and to further our understanding of the mapping between form and function.

### 1.1 *Additive vs. Non-identity Meaning*

Examples (1a) and (1b) highlight the distinction between the additive and non-identity meanings of '(an)other.' Given that there already exists a referent X that is mentioned in prior discourse or salient in the non-linguistic context—such as the bag in example (1)—when the speaker asks for '(an)other X,' are they (a) simply asking for an additional X (another token), or (b) asking for an additional X that differs from the antecedent referent in some way (a different type/kind)? Indeed, in addition to the terms 'additive' and 'non-identity,' prior work has used the terms 'token' and 'type' to reflect this distinction. For example, Cinque (2015), in his study on the ambiguity of *altro* 'other' in Italian, makes a distinction between "further token(s) of x (where x is some substance/entity/measure)" and "further type(s)/kind(s) of x (where x is some substance/entity/measure)." Kubota & Uegaki (2009), building on Culicover & Jackendoff (1995), talk about this kind of contrast in terms of 'entity' and 'kind' readings. Although researchers may not always use these terms in fully synonymous ways, the basic parallels between them are clear. In this chapter, I will mostly use the terms 'additive' and 'non-identity' to capture the meaning

difference exemplified in (1a) and (1b),<sup>1</sup> but nothing hinges on this particular terminological choice.

Although example (1), at least out of context, is in principle ambiguous between the additive and non-identity readings, some contexts strongly bias one or the other interpretation. For example, Payne & Huddleston (2002) note that (2a) highlights the additive meaning, i.e. that you can make an additional dish,<sup>2</sup> while (2b) highlights the non-identity reading of ‘another’: I support a team whose identity is different from the team that you support. The examples in (3), which Cinque (2015) attributes to Michelle Sheehan, provide a minimal pair highlighting the availability of the additive versus non-identity readings in different syntactic configurations: As Cinque (2015) points out, whether ‘(an)other’ occurs before or after the numeral can impact its interpretation, with pre-numeral uses (3a) being associated with an additive reading, and post-numeral uses (3b) being associated with a non-identity reading. (Cinque uses the terms *token* versus *type*.)

(2) a. *Additive reading*

I’ll make two dishes, and you can make another.

b. *Non-identity reading*

Harriet supports one team, and I support another.

(3) a. *Additive reading*

They ordered another two beers. (“two further tokens of x”)

b. *Non-identity reading*

They ordered two other beers. (“two further types/kinds of x”)

Naturally-occurring examples illustrating the additive and non-identity readings, taken from the COBUILD corpus and discussed by Breban & Davidse (2003) are in (4a,b). While (4a) emphasizes the additive interpretation (the existence of additional voluntary groups, beyond the British team), (4b) emphasizes the differences between the other investors and the Thai businessmen mentioned in the preceding clause, thus highlighting a non-identity interpretation.

1 While I do not explicitly discuss the type/token distinction in this chapter, I acknowledge the need for a more systematic investigation of how the ‘additive’ vs. ‘non-identity’ distinction relates to the type/token distinction (and the entity/kind distinction).

2 Note that in a context like (2a), the nature of the dish could also be different (e.g. perhaps I’ll make a lasagna and a quiche and you will make a vegetable casserole), but key communicative point is (at least in this context, presumably), that you will make a third dish *in addition* to the two that I’m making.

(4) a. *Additive reading*

A seventeen strong rescue team from Britain is on its way to Iran to assist in the search for people trapped by the earthquake. **Several other voluntary groups** including a team from the London Fire Service say they are ready to go but they are waiting for an official request from the Iranian authorities. (Breban & Davidse 2003: (40))

b. *Non-identity reading*

Thai businessmen should invest in Vietnam now, the minister told journalists, before **other investors** take advantage of the existing opportunities. (Breban & Davidse 2004: (41))

In sum, prior work has identified two main interpretations of *(an)other*, which—following prior work—I refer to as the additive use and the non-identity use in the rest of this chapter. While some languages express both meanings with the same lexical item, other languages use different lexical items. For example, Cinque (2015: 25) mentions that the two readings are expressed by distinct morphemes in Modern Eastern Armenian (Indo-European), Yidjij and Kayardild (Pama-Nyungan), Chindali (Bantu), Palaung (Mon-Khmer), and Mɔ̀nɔ̀ (Adamawa-Ubangi).

As we will see, while Finnish has two lexical items that can be used to express the meanings that '(an)other' expresses in English, namely *toinen* and *muu*, these words do *not* map one-to-one onto the additive versus non-identity distinction.

1.2 *Prior Semantic Analyses*

In formal semantics, *(an)other* has received somewhat limited attention and the distinction between additive and non-identity meanings has, to the best of my knowledge, not been systematically incorporated into formal semantic analyses in a widespread way. However, existing semantic analyses of *(an)other* and its 'cousin' *else* have nevertheless identified a number of key properties that will prove to be helpful in our discussion of Finnish. We start by reviewing two key notions in this section, namely *anaphoricity* and *distinctness*.

Using examples like (5a,b), Thomas (2011) points out that felicitous use of *(an)other X* is anaphoric in the sense of requiring the presence of another entity in addition to *X*. In (5a,b), *(an)other* triggers the presupposition that there exists in the context a salient individual who is a worker (5a) or a semanticist (5b)—in other words, that there are (at least) two workers or two semanticists.

- (5) a. I gave the workers a generous tip. One thanked me. The **other** one left without saying a word. (from Kamp 2001)

b. Speaker A: How many talks on Chinese languages were given at the conference?

Speaker B: Only two. Franz gave a talk on classifiers in Cantonese. **Another** semanticist gave a talk on NPIS in Mandarin. (from Thomas 2011)

Furthermore, (*an*)*other* asserts that there is a worker/semanticist who is distinct from the salient individual. This is shown by the fact that Speaker B's response in (5b) is false if Franz is not a semanticist and if there is no other salient semanticist in the context. Thomas formalizes the distinctness requirement in terms of a ban on overlap relations—i.e., the referent modified by (*an*)*other* (e.g. the semanticist denoted by *another semanticist* in (5b)) and the anaphoric referent (e.g. *Franz* in (5b)) do not overlap.

In related work focusing mostly on *else*, Barros (2011) makes the same points about *else*, which he argues is synonymous with *other*. As Barros notes, *else* is known to be anaphoric (e.g. Culicover & Jackendoff 1995), in that it requires the presence of a salient antecedent in the context—akin to (*an*)*other* presupposing another salient individual. Thus, in a context like (6) (from Barros 2011), use of *else* is infelicitous (6a), although the corresponding sentence without *else* is fine (6b). However, in a context like (7) (from Barros 2011) where another individual has already been mentioned (here, another person, someone getting out of the car), use of *else* when referring to the person walking to the front door is now felicitous. Thus, *else* is anaphoric.

- (6) *Context: You are looking out the window and you're on the phone with a friend talking about a party you both went to the previous week. You say:*
- a. #There's someone **else** walking up to the front door.
  - b. There's someone walking up to the front door.
- (7) There's someone getting out of a police car outside. Now, there's someone else walking up to the front door.

Furthermore, like (*an*)*other*, *else* conveys distinctness: Use of *else* in (7) introduces to the discourse another referent that is distinct from the referent mentioned in the preceding sentence, as paraphrased in (8) (Barros argues that distinctness is an entailment, not an implicature).

- (8) Someone distinct from the person that got out of the police car is walking up to the front door.

In sum, echoing the observations made about *(an)other*, according to Barros, *else* asserts distinctness ( $x \neq y$ ) and requires an antecedent (i.e. another salient individual in the context).

It appears that these two properties—anaphoricity and distinctness—are often not explicitly discussed in work focusing on the additive versus non-identity readings. However, it seems that the additive and non-identity uses of *(an)other* exhibit both anaphoricity and distinctiveness: Both additive and non-identity uses require the presence of a previously mentioned or physically co-present entity (e.g. in (1), the first bag; in (3a) an initial serving of beer, in (3b) the initial kind/type of beer) and both uses also require the entity modified by *(an)other* to be distinct from the first entity (e.g. in (1), the speaker is asking for a second bag; in (3a) for two additional servings of beer and in (3b) for two additional kinds of beer).

Another property that will turn out to be relevant for our discussion of Finnish is the notion of *exception* (and *exclusion*). As background, note that von Stechow (1993), in his early work on exceptive constructions, discusses so-called free exceptive constructions (Hoeksema 1987) like 'except for' in (9), and proposes that they involve set subtraction and restrictiveness.

(9) Except for John, every student attended the meeting.

Very informally, (9) is true of (contextually-relevant) students *except* John: it is true when John is *subtracted* from the set of students who attended the meeting. Example (9) is true iff "it is the case that everyone who is a student and who is not John attended the meeting (domain subtraction) and it is furthermore the case that not everyone who is a student at all attended the meeting (restrictiveness)", to borrow the words of von Stechow's (1993: 128) discussion of *but* constructions. (See also Moltmann 1996 and Sato 2001 on exceptives.)

In more recent work, Isac & Reiss (2002) make use of the related notion of *exclusion*, implemented via set complementation in their analysis of *else* in sentences like (10).

(10) I visited Mary<sub>i</sub> and Peter visited [someone else]<sub>j≠i</sub>.

According to Isac and Reiss, "*else* serves to exclude previously mentioned individuals (or, rather, an  $x_i$  which is coindexed with the antecedent) from the set of possible referents for *X-else*" (Isac & Reiss 2002: 46). Thus, in (10), use of *else* excludes Mary from the set of people visited by Peter—echoing the idea of subtraction mentioned above. More specifically, Isac and Reiss suggest that *else* performs the set theoretical operation of relative complementation, by "[pick-

ing] out the relative ‘complement’ of the antecedent from the set of possible referents” (Isac & Reiss 2002: 146). In the case of (10), out of the domain defined by the X part of *X-else*—here, X is *someone* in *someone else*—use of *else* picks up the complement of the antecedent Mary. In other words, Peter visited someone other than Mary in the set of (relevant) people. I will return to this notion of set complementation in Section 4.

## 2 Finnish: Two Seemingly Synonymous Options?

In this section, I turn to data from Finnish, a Finno-Ugric language. At first glance, it seems like there are two lexical items, *muu* and *toinen*, that can be used interchangeably where English uses (*an*)*other*, as in (11). *Toinen* and *muu* agree with the number and case of the noun that they modify (*toinen* and *muu* are singular nominative forms; they also exist in other cases and in the plural). They cannot both precede the same noun.<sup>3</sup> It’s also worth noting that Finnish reciprocal anaphors are formed using *toinen* (see Kaiser 2008, 2009), but I do not focus on reciprocals here.

(11) a. *Oletko nirsompi kuin muut suomalaiset?*  
 are-QUES pickier than **muu.NOM.PL** Finn.NOM.PL  
 ‘Are you more picky than **other** Finns?’ (www)<sup>4</sup>

b. *Hän [Paavolainen] istui kahviloissa ja bistroissa, mutta varoi juomasta liikaa. Varat eivät mahdottomiin riittäneet. ...*  
 ‘He [Paavolainen] spent time in cafes and bistros, but was careful to not drink too much. His funds were limited. ...’

*Toiset suomalaiset olivat huolettomampia.*  
**toinen.NOM.PL** Finn.NOM.PL were carefree.PL.COMPARATIVE  
 ‘... **Other** Finns were more carefree.’ (from a novel by Rajala 2014)

However, in the following sections I will use corpus examples and native speaker judgments to argue that these two words differ in their semantics/pragmatics, with *toinen* having a fundamentally additive meaning and *muu* involving

3 *Toinen muu X* is ungrammatical, but *muu toinen X* can occur in a context where *muu* modifies *toinen* on its ordinal (‘second’) use e.g. *muu toinen aste* (www), *aste* means degree/grade, where *toinen aste* refers to a kind of secondary school.

4 Naturally-occurring examples obtained from the internet are indicated with *www*.

the notion of excluding members of a set.<sup>5</sup> Section 3 focuses on *toinen* and Section 4 on *muu*. Section 5 provides additional examples from locative expressions and collective nouns supporting my claims, and Section 6 concludes.<sup>6</sup>

### 3 A Closer Look at *Toinen*

The word *toinen* is how Finnish lexicalizes the ordinal numeral *second*, as shown in (12a). The cardinal numeral for two is *kaksi* 'two', and thus *toinen* 'second' is a suppletive form. (Stolz & Robbers (2016) note that this is a common areal phenomenon in Northern Europe.) In the case of Finnish, *toinen* is derived from a demonstrative pronominal stem (*tuo* 'that') and an adjectival suffix (Häkkinen 1994: 245).

Examples of clearly ordinal meanings of *toinen* are in (12a,b). In (12a), we are talking about the second dose of the coronavirus vaccine (after the first dose), and (12b) refers to the competitor who came in second in a race.

#### (12) a. Ordinal meaning

*Tavoitteena on, että ensimmäinen ja toinen annos*  
 goal.ESS is that first.NOM and **toinen.NOM** dose.NOM  
*ovat samaa rokotevalmistetta*  
 are same.PAR vaccine.PAR  
 'The goal is that the first and **second** doses are of the same vaccine type.'  
 (www)

#### b. Ordinal meaning

*Hän saapui maaliin toisena.*  
 she/he.NOM arrived finish.ILL **toinen.ESS**  
 'She/he finished **second**.' (lit. 'She/he arrived second at the finish line.')

5 In this paper, I mostly focus on *toinen* and *muu* as nominal modifiers (sometimes in contexts where the head noun is presumably elided). I do not systematically address their uses when combined with the existentials such as *joku* ('someone'), e.g. *joku toinen* or *joku muu*, but acknowledge the need for future work on this.

6 Abbreviations used in this paper: NOM nominative, GEN genitive, ACC accusative, PAR partitive, ADE adessive, ALL allative, ESS essive, ELA elative, ILL illative, PASS passive, SG singular, PL plural, PTC participle, QUEST question particle. For brevity, only the critical parts of lengthy corpus examples are glossed. Furthermore, although Finnish verbs agree with the subject in person and number and are also inflected for tense and mood, for reasons of brevity they are not glossed here, as their morphology is not central to the claims being made in this paper.

In addition to expressing explicitly ordinal meanings, *toinen* can also be used to express additive and non-identity meanings, as shown in (12c) and (12d,e) respectively.

(12) c. *Additive meaning*

*Ota toinen keksi!*  
 take.IMPERATIVE **toinen.NOM** cookie.NOM  
 'Take **another** cookie!'

d. *Non-identity meaning*

*Hän asuu toisessa kaupungissa.*  
 s/he.NOM lives **toinen.INE** city.INE  
 'She lives in **another** city/in a **different** city.'

e. *Non-identity meaning*

*Kaikki me ollaan joskus ihastuttu ihmiseen*  
 all.NOM we.NOM have at\_some\_point had\_a\_crush human.ILL  
*joka asuu toisessa kaupungissa*  
 who.NOM lives **toinen.INE** city.INE  
 'We've all at some point had a crush on a person who lives in **another** city.' (www)

In (12c), *toinen* is most naturally construed as having an additive meaning, e.g. as an invitation to take another cookie from the plate on the table (i.e., an additional token). In this context, the antecedent that *toinen* is anaphoric to is present in the non-linguistic context (i.e. the speaker has seen or inferred that the addressee already took one cookie). Furthermore, in line with the additive construal, the additional cookie does not necessarily differ from the first cookie in any meaningful way. As in English, this additive use of *toinen* is infelicitous if the addressee has not already taken a cookie. (As I show later using examples (15, 16), the additive meaning cannot be separated from the ordinal meaning, so (12c) cannot be used if the cookie would be anything other than the second, i.e., the third or fourth.)

In contrast, in (12d,e), *toinen* is most naturally construed as having a non-identity reading, such that the person that the speaker is referring to lives in a city different from the speaker (and in (12e), a city different from where the referent of the generic 'we' lives).

The observation that *toinen* can receive either an additive or a non-identity meaning is also illustrated in (12f), the Finnish equivalent of (1). Here, as in (1), *toinen* can receive either an additive reading (e.g. I would like an additional bag

because the things I bought don't fit into just one bag) or a non-identity reading (e.g. I would like a different bag because the first bag I was given is torn or too flimsy).

(12) f. *Context allows for additive or non-identity meaning*

*Saisin-ko toisen kassin?*  
 get.COND-QUES **toinen**.ACC bag.ACC  
 'Could I get **another** bag?'

It's worth noting that, as examples (12c–e) show, *toinen* is anaphoric but the antecedent does not have to be linguistically mentioned. It can be physically present or visually observed as in (12c) or inferable as in (12e).

### 3.1 *On the Relation between the Ordinal and Non-identity Readings of toinen*

Having shown that Finnish *toinen* can have ordinal, additive, and non-identity readings, let us now consider the relations between these. First, turning to the ordinal and non-identity meanings, we can see in (13a,b) that these are distinct and dissociable. Example (13a) can have an *ordinal* reading (I live on the second floor) or a *non-identity* reading (I live on a different floor). Thus, if I live on the fifth floor and the elevator stops on the second floor and others think it's my floor, I can utter (13a), meaning 'I live on a different floor, not the second'—thus using this to express the *non-identity meaning*. I could also use (13a) in a crowded apartment building elevator where only one person is close enough to the buttons and everyone is telling that person which buttons to press for their floor. In this context, I could utter (13a) to the button-presser, to express that live on the second floor, thus conveying the *ordinal meaning*.

(13) a. *Minä asun toisessa kerroksessa.*  
 I.NOM live **toinen**.INE floor.INE  
 'I live on the **second** floor.' (ordinal) or  
 'I live on a **different** floor.' (non-identity)

Similarly, (13b) is a naturally-occurring example where use of *toinen* has a non-identity meaning but not an ordinal meaning. The communicative intent here is to explain that each display can be moved to a bus stop that differs from the stop where the display was before (i.e., a sign can be moved to a different bus stop); we are not talking about moving a sign from the first stop of the line to the second stop on that line.

- (13) b. *Context: A news article reporting on the addition of new displays, to be added to various bus stops around Oulu, that will indicate busses' arrival times (non-identity meaning).*

*Nykytekniikan mukaiset taulut ovat siirrettäviä, ...*

'The technologically-modern displays are movable ...'

*joten ne voidaan tarvittaessa muuttaa myös toiselle*  
 so they.NOM can.PASS when\_needed move also toinen.ALL  
*pysäkillle.*

stop.ALL

'so they can also be moved to another stop if needed.' (www)

Thus, with *toinen*, either the ordinal or non-identity reading is available, and the two readings can be dissociated: *toinen* can be used to express a non-identity reading in a context where the ordinal reading is not true.

Further evidence for my claim that the non-identity meaning can be dissociated from the ordinal meaning comes from the repetition of *toinen* in examples like (14a–c). As these examples show, it is felicitous in Finnish to have multiple occurrences (here, three) of *toinen* in one sentence. Example (14a) describes three different types of potatoes, (14b) describes three groups of people who differ in their responses to the movie being discussed, and (14c) uses *toinen* to refer to three different types of language learners. It is clear that in these contexts, *toinen* does not receive an ordinal interpretation and does not mean 'second.' If *toinen* were being used as an ordinal ('second'), it should not be used to refer to the first group or to the third group, but as (14a–c) show, *toinen* can felicitously be used for all three groups.

- (14) a. *Context: The opening sentence of an article entitled 'What do the color codes on the bags of Pirkka-brand potatoes indicate?'*

*Toiset perunat ovat kiinteämpiä,*

**toinen.NOM.PL** potato.NOM.PL are firm.PL.COMPARATIVE

*toiset jauhoisempia*

**toinen.NOM.PL** mealy.PL.COMPARATIVE

'Other potatoes are more firm, others more mealy ...'

*ja toiset Sopivat monipuolisesti erilaiseen*

and **toinen.NOM.PL** fit variously different.ILL

*ruoanlaittoon.*

cooking.ILL

'and others are suited for various kinds of cooking.' (www)

- b. Context: *Talking about people's reactions to the movie Invisible Man. Invisible man on kerännyt keskustelupalstoilla ja somessa varsin vaihtelevia arvioita. ...*

'Invisible man' has received variable reviews on internet forums and on social media. ...

*Toiset ovat tykänneet, toiset ovat olleet hieman toinen.NOM.PL have liked toinen.NOM.PL have been slightly pettyneitä, disappointed*

'Others have liked it, others have been slightly disappointed ...

*toiset eivät ole tykänneet lainkaan.*

*toinen.NOM.PL neg.3PL have liked at\_all*

... others have not liked it at all.' (www)

- c. Context: *A teacher talking about people who start studying Russian:*

*Haasteena meillä on myös ryhmien heterogeenisuus: ...*

'The heterogeneity of the groups is also a challenge for us: ...

*toiset aloittavat aivan alusta, toiset toinen.PL.NOM start very beginning.ELA toinen.PL.NOM ovat opiskelleet kieltä jossain vaiheessa aikaisemmin, have studied language.PAR some stage.INE earlier*

'Others are starting at the very beginning, others have studied the language at some earlier point,

*toiset puhuvat venäjää kotona toisen toinen.PL.NOM speak Russian.PAR home.ESS toinen.GEN vanhemman kanssa parent.GEN with*

others speak Russian at home with the other parent

*mutta eivät kirjoita tai hallitse kielioppia, but neg.3PL write or master grammar.PAR but cannot write or have not mastered the grammar,*

*ja jotkut puhuvat venäjää äidinkielenä.' and some.NOM.PL speak Russian.PAR mother\_tongue.ESS and some speak Russian as their first language.' (www)*

I take these kinds of examples as (i) further evidence that *toinen* can receive a non-identity reading where it picks out referents that differ from each other in some relevant way (e.g. in (14a), different potato varieties, in (14b), people with different opinions, (14c) learners with different language backgrounds) and also as (ii) additional evidence that when *toinen* has this non-identity interpretation, it does not need to have an ordinal construal.

It is also worth noting that, as these examples indicate, the English construction ‘some ... others ...’ can be realized in Finnish with ‘toiset ... toiset ...’ (see also Hakulinen et al. 2004, section 767). In other words, in Finnish, even the first referent/group can be realized with *toinen/toiset*, i.e., one does not have to start with *joku/jotkut* (‘some’), though this would also be grammatical (Hakulinen et al. 2004). Interestingly, even in these contexts *toiset* is anaphoric to a salient individual/group already mentioned in the discourse or salient in the non-linguistic context. Thus, I do not view this use as violating the anaphoricity characteristic of *toinen*.

### 3.2 *On the Relation between the Ordinal and the Additive Readings of toinen*

We saw in the preceding section that the non-identity reading of *toinen* can be dissociated from the ordinal meaning. However, in this section I present evidence that the additive reading of *toinen* apparently *cannot* be separated from its ordinal meaning. To see this, let’s start by considering (15a). If we are focusing on the additive reading of (15a), then this can only be felicitously uttered if the addressee is invited to take a second cookie, not if the additional cookie would be their third.

(15) a. *Ota*                                    *toinen*                    *keksi!*  
 take.IMPERATIVE **toinen.NOM** cookie.NOM  
 ‘Take **another** cookie!’ (second cookie)

b. *Ota*                                    *vielä yksi*                    *keksi!*  
 take.IMPERATIVE still one.NOM cookie.NOM  
 ‘Take one more cookie!’ (lit. still one cookie)

This restriction is at the heart of the humorous exchange in (15c) from the 2023 movie *Fallen Leaves*, directed by Aki Kaurismäki. When one character asks ‘Should we have another round of drinks?’, using *toinen*, the second character corrects him by saying they are already onto their sixth round of drinks, implying that they are already past the *toinen* ‘second’ round. The same interpretation (‘second’) obtains for the constructed example in (16a).

The Finnish *toinen* thus contrasts with English *another*, which can be used to encourage someone to take a third or fourth cookie (or when someone is ordering their third beer, etc). Consequently, the humor of Kaurismäki's dialog in (15c) does not translate to English. In Finnish, in a context where the additional cookie or beer would be the person's third (or fourth etc.), the additive particle *vielä* (roughly translatable as 'still')<sup>7</sup> combined with the numeral 'one' (*vielä yksi*) is the felicitous option, as in (15b) and (16b).

- (15) c. from the movie *Kuolleet Lehdet* (Fallen Leaves, directed by Aki Kaurismäki, 2023)

*Holappa: "Otetaanko toiset?"*

take-QUES *toinen*.ACC.PL

'Should we have another round of drinks?' (lit. 'Should we take another's?')

*Huotari: "Nämä ovat kuudennet."*

these.NOM are sixth.ACC.PL

'This is the sixth round of drinks.' (lit. 'these are the sixths.')

- (16) a. *Minä tilasin toisen oluen.*

I.NOM ordered *toinen*.ACC beer.ACC

'I ordered another beer.' (second beer)

- b. *Minä tilasin vielä yhden oluen.*

I.NOM ordered still one.ACC beer.ACC

'I ordered one more beer.' (lit. 'still one beer')

Further evidence for my claim that the additive reading of *toinen* cannot be separated from its ordinal reading comes from examples like (17). If five guests have already walked in and then moments later another guest enters the room

7 I assume that *vielä* in these contexts is an additive particle. In general terms, *vielä* seems to share properties with German *noch* (e.g. Umbach 2009) in that, in addition to its additive reading, it can also receive a temporal reading and occurs with comparatives.

(i) *He ovat vielä kotona.*

'They are still at home.'

(ii) *Liisa ei ole vielä saapunut.*

'Liisa has not yet arrived.'

(iii) *Tämä on vielä parempi.*

'This is even better.'

(i.e., we are dealing with an additive context), it is infelicitous in Finnish to use *toinen*, but *vielä yksi* ('still one') is fine.

- (17) *Salista kuului jo musiikkia ja puheensorinaa. Viisi vierasta kiirehti sisään.*  
 'Music and the sounds of conversation could already be heard from the hall. Five guests rushed in.'

*Hetken päästä huoneeseen astui {\*toinen /<sup>ok</sup>vielä*  
 moment.GEN after room.ILL stepped {\*toinen.NOM /<sup>ok</sup>still  
*yksi} vieras.*  
 one.NOM guest.NOM  
 'After a moment, **another** guest entered the room.'

In sum, the data presented so far suggests that although, at first blush, Finnish *toinen* seems to resemble English '(an)other' in allowing both additive and non-identity readings, the Finnish form is more constrained specifically in the domain of additive readings: When *toinen* receives an additive interpretation, it can only refer to the second occurrence of the referent—in other words, the additive meaning is restricted to the more specific ordinal 'second' meaning.

I propose that this constraint stems from the fact that the ordinal meaning of *toinen* asymmetrically entails its additive meaning. Thinking back to (15a), whenever a cookie is 'second' (ordinal meaning), it also satisfies the definition of the additive meaning, but not the other way around: a third or fourth cookie is additive, but not second.

I suggest that the available meanings of *toinen* are constrained by an independently motivated pragmatic constraint on form-meaning mappings known as the *Strongest Meaning Hypothesis*, as in (18) from Farkas & De Swart (2010), originally proposed by Dalrymple et al. (1998) in their work on reciprocals. The SMH predicts that in examples like (15a) the stronger meaning (ordinal meaning) wins out—which matches what we see in Finnish.

- (18) The Strongest Meaning Hypothesis (SMH) applies when an expression is assigned a set of interpretations ordered by entailment and chooses the strongest element of this set that is compatible with the context. (Farkas & De Swart 2010: 28)

The SMH also correctly predicts that the non-identity meaning of Finnish *toinen* does not interact with its ordinal meaning, as neither of these meanings entails the other. This fits with what we saw in examples (13) and (14), which

show that on its non-identity use, *toinen* can pick out referents or sets of referents beyond the 'second.'

If this approach is on the right track, it predicts that other languages where the word for *(an)other* also has an ordinal ('second') meaning should pattern like Finnish, as the SMH is not a language-specific pragmatic principle. Indeed, we find preliminary evidence for this in Swedish, where *den andra busshållplatsen* ('the other bus stop') is reported to be ambiguous between (a) an additive interpretation, specifically 'the second bus stop' and (b) a non-identity interpretation ('a different bus stop'), echoing what we saw in Finnish in examples like (12f) and showing the same strengthening from the additive to the ordinal meaning that we find in Finnish. However, further research needs to be conducted to check this (including potential interactions with definiteness in Swedish), and to assess the robustness and broader cross-linguistic and cross-constructional generalizability of this prediction.

### 3.3 *Taking Stock: What's the Meaning of toinen?*

So far, I have proposed that Finnish *toinen* can receive ordinal, additive and non-identity meanings, and that, as a consequence of the ordinal meaning of *toinen* asymmetrically entailing the additive meaning, the ordinal meaning overrides non-ordinal additive meanings, which need to be expressed with a different expression. Recall also, as discussed in Section 3.1, that *toinen* also exhibits the properties of anaphoricity and distinctness—in other words, it requires a salient antecedent in the linguistic or non-linguistic context that is distinct from the entity picked out by the noun modified by *toinen*.

Before shifting the focus onto the second lexical item in Finnish that also appears to map on to '(an)other'—namely *muu*—let us consider whether we can identify a 'core meaning' for *toinen*. At first blush, it might be tempting to attempt to derive all meanings of *toinen* from its ordinal meaning. However, given that *toinen* can be used with a non-identity meaning in contexts where it does not mean 'second' (see (14)), it seems that an approach that treats the ordinal meaning as the core meaning will fail to capture the non-identity readings.

It is also unclear how an alternative approach that treats that *non-identity meaning* as a core aspect of *toinen* could capture its additive uses.

Instead, let us consider an account where the core meaning of *toinen* is simply a consequence of the anaphoricity and distinctness components. Under this view, felicitously using *toinen* to modify a noun (e.g. *toinen kassi* 'another bag') requires that (i) the context contains a salient antecedent (e.g. a bag), as required by anaphoricity and (ii) the noun modified by *toinen* picks out an entity that is referentially distinct from the antecedent, as required by dis-

tinctness (i.e., there are at least distinct two bags, such that ‘*toinen bag<sub>k</sub>*’ is not coreferential with the antecedent ‘*bag<sub>i</sub>*’), as already discussed above. These two properties naturally yield an additive reading (*toinen bag<sub>k</sub>* = a *bag<sub>k</sub>* in addition to the *bag<sub>i</sub>* already present in the context).

Thus, in a context where *toinen* is used to express a simple additive reading, the speaker’s communicative intent is to convey that there exists an additional *bag<sub>k</sub>* beyond the *bag<sub>i</sub>* that is already salient in the context (and the Strongest Meaning Hypothesis kicks in to strengthen this meaning to the ordinal meaning). Under this view, the additive meaning emerges straightforwardly from anaphoricity and distinctness, without the need for any additional stipulations.

What about contexts where *toinen* is used to express a non-identity reading, i.e., the speaker’s communicative intent is to convey that the additional *bag<sub>k</sub>* differs in some relevant way from the *bag<sub>i</sub>* already salient in the context? We’ve been calling this the non-identity use, but what is its source? The non-identity use also satisfies anaphoricity and distinctness, which—as I argue above—can be used to derive a basic additive meaning. Where does the non-identity component come from? One approach would be to treat it as a consequence of the discourse context, building on ideas from Gianollo & Mauri (2020), Del Prete (2022) and Del Prete & Montermini (2023) on Italian *altro* (‘other’).

Under this view, the core meaning of Finnish *toinen* is additive (anaphoricity plus distinctness), but this core meaning is *pragmatically enriched/further specified* by the discourse context.

To put it differently: for the reader or listener, the expression *toinen* has a basic additive semantic meaning, which can be pragmatically enriched by the context such that it receives a contrastive component: The noun modified by *toinen* picks out an entity referentially distinct from the antecedent (i.e., there are at least distinct two bags, such that ‘*toinen bag<sub>k</sub>*’ is not coreferential with the antecedent ‘*bag<sub>i</sub>*’) and furthermore, *bag<sub>k</sub>* contrasts in some relevant way with the antecedent *bag<sub>i</sub>*. The examples in (14) provide corpus example of contextual cues signaling a contrastive interpretation: In each of these examples, the referents picked up by *toinen* are referentially distinct, but crucially the communicative goal of the sentences is to contrast different referents to each other: In (14a), the sentence contrasts the characteristics of different potato variety, (14b) contrasts people with different reactions to a movie and (14c) contrasts learners with different linguistic fluency levels. Similarly, in (12e), the relevant referent (*toinen kaupunki* ‘another city’) crucially contrasts with the city that the speaker lives in; the point of the sentence is to contrast one’s own living location to where one’s crush lives.

It’s worth noting that if the core meaning of *toinen* is additive, as I claim, then we predict that—in the absence of contextual cues pushing for a contrastive

reading—a simple additive reading is preferred. This prediction is supported, as shown by the fact that when the context provides no signal of contrast (e.g. (12a, 13a)), *toinen* is naturally interpreted as having an additive meaning. Importantly, a more thorough implementation, including a closer look at contextual effects, is a fruitful direction for future work.

#### 4 Finnish: A Closer Look at *Muu*

Let us now turn to the lexical item *muu*. As we saw at the start of the chapter, at first glance one might think that this word is used interchangeably in Finnish where English uses (*an*)*other*, as in (11). Another set of examples is provided in (19). (Starting here, I use *muu* in the English translations as well, to help distinguish it from *toinen*. When helpful, I add the subscript PL to indicate that *muu* is plural.)

(19) *Context: Out of a group of children during nap time, one child was wide awake, while the other children were sleeping.*

a. *Muut lapset nukkuivat.*  
 muu.NOM.PL child.NOM.PL were-sleeping  
 'Muu<sub>PL</sub> children were sleeping.'

b. *Toiset lapset nukkuivat.*  
 toinen.NOM.PL child.NOM.PL were-sleeping  
 'Other children were sleeping.'

In some regards, these two forms are indeed similar. Like *toinen*, *muu* is anaphoric (requires the presence of a salient antecedent in the context) and requires distinctness (the referent modified by *muu* is distinct from the antecedent referent). In (20a), where there is no salient antecedent in the discourse context, use of *muu* is infelicitous (i), while the corresponding sentence without *muu* is fine (ii). Once an antecedent is provided, as in (20b) where an individual has already been mentioned, use of *muu* when referring to the other person ringing the doorbell is felicitous. (Examples adapted from Barros 2011.)<sup>8</sup>

8 As these examples suggest, the meaning expressed in English by word *else* is typically expressed by *muu* in Finnish. However, *muu* is also used in contexts in Finnish where English would use (*an*)*other*, as we saw in ex. (11). Thus, at least on the surface level, *muu* cannot be directly equated to *else*. Thus, while the relation between Finnish *muu* and English *else* is an important question for future work, in this chapter I do not attempt a detailed crosslin-

(20) a. *Context: You are looking out the window and you're on the phone with a friend talking about a party you both went to the previous week. You say:*

(i) #*Joku*                    *muu*            *soittaa ovikelloa.*  
 # someone.NOM **muu**.NOM rings doorbell.PAR  
 'Someone **muu** is ringing the doorbell.'

(ii) *Joku*                    *soittaa ovikelloa.*  
 someone.NOM rings doorbell.PAR  
 'Someone is ringing the doorbell.'

b. *Joku*                    *nousee poliisiautosta. Nyt joku*  
 someone.NOM gets\_out police-car.ELA Now someone.NOM  
*muu*                    *soittaa ovikelloa.*  
**muu**.NOM rings doorbell.PAR  
 'Someone is getting out of a police car. Now someone **muu** is ringing the doorbell.'

However, despite sharing the properties of anaphoricity and distinctness, we will see in this section that *muu* and *toinen* differ in many other ways. Before taking a closer look at the meaning of *muu*, it's worth noting what kinds of nouns *muu* and *toinen* can modify (21). Unlike singular *toinen*, bare singular *muu* sounds odd with singular count nouns. However, with plural count nouns (and mass nouns), the plural forms of *toinen* (*toiset*) and *muu* (*muut*) are possible. (I put aside for now the interpretation of *muu* and *toinen* with mass nouns, though this is a question worthy of further research.) In what follows, I focus mostly on count nouns (to keep things parallel to the discussion of *toinen*), but I return to the difference between plural/singular in Section 4.2.

(21) a. *Singular count nouns*  
*toinen vieras*  
 toinen.NOM guest.NOM  
  
 #*muu vieras*  
 #muu.NOM guest.NOM

---

guistic comparison and instead focus on *muu* as it is used in Finnish. Relatedly, one might also wonder about the English expressions *the rest* and *the remainder*, in particular for plural occurrences of *muu*. However, examples like (20b) show that *muu* can be used in contexts that in English cannot be expressed with terms like *rest/remainder*. I leave the relation these expressions as an intriguing direction for future work.

b. *Plural count nouns*

*toiset*                    *vieraat*  
 toinen.NOM.PL guest.NOM.PL

*muut*                    *vieraat*  
 muu.NOM.PL guest.NOM.PL

c. *Mass nouns*

*toinen*                  *hiekkä*  
 toinen.NOM sand.NOM

*muu*                    *hiekkä*  
 muu.NOM sand.NOM

#### 4.1 *Exploring the Availability of the Additive and the Non-identity Meaning with muut*

Above, I suggested that the core meaning of *toinen* is additive. However, unlike *toinen*, *muu* appears to disprefer additive meanings. Let's start with (22), where *toiset* and *muut* both are in the plural form. Imagine a context where it is very cold and we need to put on multiple pairs of socks to keep our feet warm. In this context, to encourage someone to take additional socks (a second pair of socks), it is felicitous to use *toiset* (in line with the claims made above). In this kind of additive context, the socks do not differ from each other in any relevant way; the focus is simply on wearing multiple socks to keep warm. However, in this context, *muut* sounds odd.

(22) *Ota*                    {*toiset*                    /#*muut*}                    *sukat!*  
 take.IMPERATIVE {*toinen.NOM.PL* /#*muu.NOM.PL*} sock.PL  
 'Take {*other*<sub>PL</sub> / #*muu*<sub>PL</sub>} socks!'

However, in contexts where a non-identity meaning is easily available, *muut* is felicitous.<sup>9</sup> For example, in (23a,b), both *toiset* and *muut* are fine. In (23a), the bags modified by *toiset/muut* differ from the bag mentioned in the first clause, in that the 'antecedent' bag is good/usable while the others are broken. Thus,

9 I am using somewhat different examples here than in the discussion of *toinen* above, due to the need to use plural count nouns with *muut*. Furthermore, some configurations can trigger ambiguities regarding distributive versus collective interpretations, which I put aside in the present chapter.

we are dealing with a contrastive, non-identity interpretation. Similarly, both *toiset* and *muut* are fine in (23b) as well. Here, *toiset/muut* presumably modifies an elided noun (e.g. *people*), which differs from the antecedent Pekka in a relevant way—namely, he slipped and they did not. Thus, this is another case of a contrastive, non-identity reading.

- (23) a. *Tämä kassi on hyvä, mutta { toiset /  
 this.NOM bag.NOM is good.NOM but { toinen.NOM.PL /  
 muut } kassit ovat rikkiäisiä  
 muu.NOM.PL } bag.NOM.PL are broken.PL.PAR  
 ‘This bag is good, but { other<sub>PL</sub> / muu<sub>PL</sub> } bags are broken.’*
- b. *Kun Pekka kaatui jäisellä kadulla, { toiset /  
 when Pekka.NOM fell icy.ADE street.ADE { toinen.NOM.PL /  
 muut } auttoivat häntä.  
 muu.NOM.PL } helped he.PAR  
 ‘When Pekka fell on the icy street, { other<sub>PL</sub> / muu<sub>PL</sub> } helped him.’*

So far, it seems that at least when we look at count nouns, *muu* differs from *toinen* in only having a non-identity construal, not an additive construal. Recall that in Section 3, I explored the idea that *toinen* has a core additive meaning, derivable from anaphoricity and distinctness, and that non-identity construals are pragmatically triggered by contextual factors, e.g. when the discourse context makes clear that we are contrasting two kinds of referents. But the source of the non-identity construal of *muu* cannot be explained the same way as *toinen*, given that *muu* does not allow additive construals.<sup>10</sup> Should we stipulate that *muu* has a non-identity meaning hardwired into its semantics? Next, I take a closer look at the meaning of *muu*, and instead suggest that its non-identity reading has a different source, involving exclusion, and can be analyzed as set complementation.

#### 4.2 *Going beyond Non-identity: Exclusion and Set Complementation*

In this section, I explore the idea that the core meaning of *muu*, unlike *toinen*, involves the notion of context-sensitive exclusion. I build on and extend some

<sup>10</sup> An important question that I leave open is whether these construals involve presuppositions, entailments, or implicatures. This is a worthwhile direction for future work and could help distinguish these meanings.

aspects of Isac & Reiss' (2002) work on *else*. As discussed above, Isac and Reiss characterize *else* in contexts like (24) as excluding previously-mentioned referents from a set of possible referents—in other words, in (24), adding *else* to *someone else* indicates that the person Peter met is not Mary, as *else* serves to exclude Mary from the set of potential referents. More concretely, Isac and Reiss propose that *else* performs the set theoretical operation of relative complementation, by “[picking] out the relative ‘complement’ of the antecedent from the set of possible referents” (Isac & Reiss 2002: 146).

(24) I visited Mary<sub>i</sub> and Peter visited [someone else]<sub>j≠i</sub>.

Finnish *muu*, in contrast to *toinen*, seems to pattern in a very similar way to *else*. I suggest that *muu* operates on a (contextually constrained) set of elements *x* defined by the noun that *muu* modifies, and excludes from this set the member that refers to the antecedent, and picks the complementary set. Thus, in (25a), *muut autot* (‘muu<sub>PL</sub> cars’) excludes from the set of cars the previously-mentioned Tesla, leaving the complement set consisting of the other three cars.

(25) a. *Perheellä on neljä autoa. Isä ja äiti ajavat Teslalla. ...*  
 ‘The family has four cars. The father and the mother use the Tesla ...’  
*Muut autot ovat lasten käytössä.*  
 muu.NOM.PL car.NOM.PL are child.GEN.PL use.INE  
 ‘Muu<sub>PL</sub> cars are used by the children.’  
 Situation: {~~car1~~, car2, car3, car4}

Before comparing *muu* to *toinen* more closely, a brief digression is in order. Recall that *muu* cannot combine with singular count nouns. On a speculative note, this restriction could perhaps be captured by a ban on singleton sets. Consider the context in (25b). In a context where the family only has two cars and the parents use the Tesla, use of *muu* is infelicitous, although *toinen* is fine (25b). If my speculation is on the right track and *muu* is infelicitous because it would exclude the previously mentioned Tesla and crucially yield a singleton set consisting of only one car, we are faced with the question of why use of *muu* is not good in singleton-set contexts (25b). This could be related to competition from *toinen*: For expressing the meaning in (25b), the lexical *toinen* offers a stronger option and thus use of *muu* is blocked, perhaps by something akin to Maximize Presupposition (Heim 1991). However, I leave the details of this speculation for future work.

- (25) b. *Perheellä on kaksi autoa. Isä ja äiti ajavat Teslalla. ...*  
 ‘The family has two cars. The father and the mother use the Tesla ...’  
 { # **Muu** / <sup>ok</sup>**toinen** } auto on lasten  
 { # **muu.NOM** / <sup>ok</sup> **toinen.NOM** } car.NOM is child.GEN.PL  
*käytössä.*  
 use.INE  
 ‘The { # **muu**<sub>SG</sub> / <sup>ok</sup> **other** } car is used by the children.’  
 Situation: { **car**, car2 }

Let us now take a look at some minimal pairs involving *toinen* and *muu*, to see how the set complementation approach works. Consider (26). First, imagine a context where I am returning three books to the library, each of which is the first in a book series, and I would now like to borrow the second book in each series. Here, *toiset* in (i) is felicitous with an ordinal meaning: it is easily construed as signaling that I am asking to borrow the second book in each of the book series. However, *muut* in (ii) seems to preferentially receive a different interpretation: I am asking to borrow all of the other parts of each of the book series, i.e., the remainder of each series, except for the first part (first book) of each series which I have already read.

- (26) *Context: I am returning to three books to the library, each of which is the first in a book series.*
- (i) Ordinal reading: I want to borrow the second book in each series  
*Saisin-ko näiden kirjasarjojen toiset*  
 get.COND-QUEST this.PL.GEN book-series.PL.GEN **toinen.ACC.PL**  
*osat?*  
 part.ACC.PL  
 ‘Could I have the **second** parts of these book series?’
- (ii) Set complementation reading: I want to borrow the remaining books in each series  
*Saisin-ko näiden kirjasarjojen muut*  
 get.COND-QUEST this.PL.GEN book-series.PL.GEN **muu.ACC.PL**  
*osat?*  
 part.ACC.PL  
 ‘Could I have the **muu**<sub>PL</sub> parts of these book series?’

If *muu* involves set complementation, we can straightforwardly derive the interpretation of (ii). Out of the domain defined by X in the construction *muut X*—here, ‘parts of each book series’—use of *muu* picks up the complement of

the antecedent (which in this case is the first book of each series). Thus, *muu* excludes the first book in each series from the potential set of referents and picks out the rest (the complement set, the other books in the series).

Another minimal pair, constructed based on a naturally-occurring corpus example, is in (27). In (27a), the naturally-occurring example, use of *toiset* triggers an ordinal reading: The speaker wants to know where the *second* sock in a pair of socks ends up.

However, if *toiset* is changed to *muut* as in (27b), this second-member-of-a-pair reading is no longer available. Rather, the utterance is most naturally interpreted as the speaker asking about fate of the rest of the socks (relative to a previously mentioned sock or pair of socks). Although the antecedent sock is not explicitly mentioned here, a reader can easily accommodate a context where it has been mentioned in prior discourse. I propose that the interpretation of (27b) is another case of set complementation: Out of the domain defined by X in the construction *muut X*—here, 'socks'—use of *muu* picks up the complement of the antecedent (the set of socks minus the antecedent sock).

(27) a. *Ordinal: second member of a pair*

*Tässä herää kysymys, itsekin lapsiperheen äitinä, että ...*

'This brings up the question, for me as the mother of a family with children ...'

*mihin ne toiset sukat häviää?*

where.ILL dem.NOM.PL **toinen.NOM.PL** sock.NOM.PL vanish?

'Where do the **other** socks disappear?' (www)

b. *Set complementation*

*mihin ne muut sukat häviää?*

where.ILL dem.NOM.PL **muu.NOM.PL** sock.NOM.PL vanish?

'Where do the **muu<sub>pl</sub>** socks disappear?' (changed)

This approach to *muu* in terms of set complementation assumes that it picks out the (contextually-constrained) complement set, after the antecedent has been excluded. This predicts that *muu* cannot 'target' the same set multiple times, as the first use of *muu* already exhaustively refers to the rest of the set. Indeed, this prediction is borne out, as shown in (28).

(28) a. *Leikkipuistossa on vilskettä. ...*

'The playground is busy. ...'

*Viisi lasta leikkii hiekkalaatikolla ja muut*  
 five.NOM child.PAR play sandbox.ADE and **muu.NOM.PL**  
*laskevat liukumäkeä.*  
 slide slide.PAR  
 ‘Five children are playing in the sandbox and **muu<sub>PL</sub>** are playing on the slide.’

b. *Leikkipuistossa on vilskettä. ...*

‘The playground is busy ...’  
*Viisi lasta leikkii hiekkalaatikolla, muut laskevat*  
 five.NOM child.PAR play sandbox.ADE, **muu.NOM.PL** slide  
*liukumäkeä, ja #muut keinuvat.*  
 slide.PAR and # **muu.NOM.PL** swing  
 ‘Five children are playing in the sandbox, **muu<sub>PL</sub>** are playing on the slide and #**muu<sub>PL</sub>** are on the swings.’

In (28a), use of *muut* picks out the rest of the contextually-salient set of children after the five children in the sandbox have been excluded. In (28b), use of another clause with *muut* (*muu<sub>PL</sub> are on the swings*) is infelicitous, which I attribute to the preceding clause (*muut<sub>PL</sub> are playing on the slide*) already having exhausted the complement set, leaving nothing for the second occurrence *muut* to target. Thus, under a set complementation approach to *muu*, we can capture the asymmetry between (28a) and (28b). Furthermore, the fact that *toiset* can be used several times (as in (28c), and as discussed in (14)) contrasts strikingly with the lack of such repetition with *muut*.

(28) c. *Leikkipuistossa on vilskettä. ...*

‘The playground is busy ...’  
*Viisi lasta leikkii hiekkalaatikolla, toiset laskevat*  
 five.NOM child.PAR play sandbox.ADE, **toinen.NOM.PL** slide  
*liukumäkeä, ja toiset keinuvat.*  
 slide.PAR and **toinen.NOM.PL** swing  
 ‘Five children are playing in the sandbox, **others** are playing on the slide and **others** are on the swings.’

In sum, in this section I explored the idea that the core meaning of *muu* involves exclusion and set complementation, in contrast to *toinen* which I suggest is fundamentally additive. Under this approach, a so-called non-identity use of *muu* has a very different source than a non-identity use of *toinen*. In the case of *muu*, the relation between the antecedent referent and the referent(s) of the noun

modified by *muu* is inherently contrastive, in that there must be some grounds to exclude the antecedent from the set of potential referents (e.g. on the basis of what the children are doing, or who is using which cars).<sup>11</sup> In contrast, in the case of *toinen*, the fundamental meaning is additive, and non-identity interpretations are triggered by discourse contextual considerations, rather than represented in the semantics of the lexical item.

## 5 Further Evidence

Before concluding, in this section I consider additional data that supports the analyses I have sketched above for *toinen* and *muu*.

First, location terms in Finnish provide further evidence for the idea that *toinen* is fundamentally additive while *muu* involves set complementation. There are various words derived from the roots associated with *toinen* and *muu*, but for now let us only consider the forms *toisaalla* and *muualla* which are in adessive case and can both be roughly translated as 'elsewhere' in English (depending on context), but differ in their meanings. *Toisaalla* can refer to a specific location (different from the salient current location) that the speaker knows but opts not to name. In contrast, *muualla* can be used simply to express 'not here', locations that are distinct from the salient location, without designating or even being able to enumerate specific locations.

For example, (29a) is a social media post, and in this context *toisaalla* is easily interpreted as referring to another website, another specific place on the internet, where people were discussing the benefits of working out. In contrast, (29b) is part of a description of someone's trip to Gran Canaria, and here *muualla* is used in a more general way for *all locations other than* the places near hotels.

- (29) a. *Toisaalla oli tänään keskustelua salitreenin*  
**elsewhere.ADE** was today conversation.PAR gym work-out.GEN  
*hyödyllisyydestä*  
 beneficiality.PAR  
 'There was discussion **elsewhere** today about the benefits of gym work-outs.' (www)

11 It is important to emphasize that the sets we are operating on are contextually determined and subject to domain restriction. My intent is not to claim that an expression like *muut autot* 'muu<sub>L</sub> cars' targets all cars in the universe—rather, like many other phenomena in language, we are only dealing with the contextually relevant set of cars. The precise nature and extent of these restrictions is an important question for future work.

- b. *Hotellien lähistöllä oli vihertävää, mutta muualla oli pelkää kivikkoa ja tulivuoria.*  
 hotel.GEN.PL nearby was green-ish but elsewhere.ADE was just rocky area-PAR and volcano.PAR.PL  
 ‘Things were green near the hotels, but just stones and volcanoes elsewhere.’ (www)

These construals can be straightforwardly derived if (i) we treat *toinen* as having an additive meaning that allows for non-identity construals—a specific location that differs in some relevant way from the current location—when the context signals some kind of contrast is present (29a), and if (ii) we view *muu* as referring to the complement set (here, all contextually relevant locations except the hotel areas, (29b)).

Another pair of location term examples highlighting this distinction is in (29c,d), using the forms *muualla* and *toisaalle* (in allative case). In Finland, there are monuments in many cemeteries for remembering those who are buried elsewhere, in other words for those buried in *any location other than* the one where the memorial monument is located. The widely-used standard name for such monuments is *muualla haudattujen muistomerkki* (29c). The version with the corresponding version of *toinen* (*toisaalle*, in (29d)) is much less widely used, though not ungrammatical.

- (29) c. *Muualla haudattujen muistomerkki*  
 elsewhere.ALL buried.PTC memorial.NOM  
 ‘Memorial for those buried elsewhere’
- d. (?) *Toisaalle haudattujen muistomerkki*  
 elsewhere.ALL elsewhere.ADE elsewhere.NOM  
 ‘Memorial for those buried elsewhere’

This contrast follows from the complement-set analysis of *muu*: it picks out all contextually-relevant locations other than the current location. This exactly the purpose of the monument: it is a universal place for remembering all those who are buried in any other location—hence the use of *muu* in the standard name for these memorials. At the same time, use of *toinen* in this context is not grammatically impossible, as *toinen* allows for a contrastive, non-identity construal, and thus makes reference to the many other locations where people are buried. But the complement-set meaning of *muu* captures the aim of these memorial more accurately, and thus its predominant use follows from my analysis.

A different kind of evidence for the analyses sketched in this paper comes from collective nouns. Recall that *muu*, unlike *toinen*, cannot be used with singular count nouns. Interestingly, both words can be used with *collective nouns* (e.g. *group*, *band*, *team*), but with very different meanings (see also Hakulinen et al 2014). Use of *toinen* (30a) can be associated with (as expected) an additive or non-identity reading: we are talking about a second band, a different band from the band that is already salient in the context. This is exemplified in the corpus example in (30c), talking about the band Gyllene Tider, in addition to the band Roxette. However, use of *muu* (30b) does *not* refer to another band—instead, here we are talking about the *remaining members of one band* (after the antecedent member has been subtracted)—i.e., set complementation. This is exemplified in (30d), where *muu yhtye* picks out the members of the band except for the singer Mustajärvi (the anaphoric referent that is subtracted).

(30) a. *toinen yhtye*  
 toinen.NOM band.NOM  
 'another band'

b. *muu yhtye*  
 muu.NOM band.NOM  
 'muu band'

c. '*toinen*' band—an additional band  
*Roxette-tähti Per Gesslen toinen yhtye*  
 Roxette-star.NOM Per.NOM Gessle.GEN **toinen.NOM** band.NOM  
*Gyllene Tider esiintyy ....*  
 Gyllene Tider performs ...  
 'Roxette-star Per Gessle's **other** band, Gyllene Tider, will perform ...'  
 (www)

d. '*muu*' band—the rest of the band  
*Context: Pate Mustajärvi, singer of a famous band, told his bandmates that he is quitting:*

*Mustajärvi paljastaa ...*  
 'Mustajärvi reveals ...'

*miten muu yhtye reagoi laulajan ilmoitukseen.*  
 how muu.NOM band.NOM reacted singer.GEN announcement.ILL  
 'how **muu** band reacted to the singer's (his) announcement' (www)

## 6 Conclusions

Words like (*an*)*other* are frequent and play an important role in communication. Prior investigations into their semantics and pragmatics have uncovered a variety of uses, raising questions about how (and whether) these different meanings relate to each other, and tapping into issues regarding the nature of context dependence and the semantics/pragmatics interface more generally. Languages vary in terms of whether they use one word or distinct lexical items to convey different *other*-related meanings. In particular, it has been noted that the additive and the non-identity meaning are expressed with distinct lexical items in many languages (see e.g. Cinque 2015). In this paper, I present data from Finnish—a Finno-Ugric, non-Indo-European language—that does not fit with this typological pattern. I propose that the two lexical items that at first glance seem to be the Finnish equivalents of English (*an*)*other* do not, in fact, map onto the contrast between the additive and the non-identity meaning. This work highlights the benefits of looking at typologically diverse languages and has implications for our understanding of the range of lexicalization patterns that exist in human language.

More concretely, this paper set out to provide an initial exploration of two Finnish lexical items, *toinen* and *muu*, that may at first glance both seem to be synonymous with English (*an*)*other*. I explore the semantics and pragmatics of these two forms, in particular the availability of the additive versus non-identity construal distinction that has been the focus of prior crosslinguistic work. I conclude that the two Finnish lexical items do not map in a straightforward way onto this distinction, and that we also need to consider the notion of set complementation, a concept not often discussed in research on *other*.

Using corpus examples and native speaker judgments, I propose that one of the Finnish lexical items, *toinen*, has a core additive meaning, which can be derived from anaphoricity and distinctness—two properties that have been independently proposed. I suggest that non-identity interpretations of *toinen* are triggered by discourse-contextual factors. Furthermore, given that *toinen* also has an ordinal meaning ('second'), I show that additive readings of *toinen* are constrained to also mean 'second.' I attribute this to the Strongest Meaning Hypothesis (Dalrymple et al. 1998).

As regards the other lexical item, *muu*, I show that while it also exhibits anaphoricity and distinctness, like *toinen*, it has a different range of interpretations. I analyze *muu* as involving the process of set complementation (picking out the complement set relative to the antecedent). Set complementation has been discussed relative to the lexical item *else* in English by Isac & Reiss (2002). I suggest that *muu* operates on a (contextually constrained) set of elements

defined by the noun that *muu* modifies, and excludes from this set the member that refers to the antecedent, and picks the complementary set. If my proposal is on the right track, the non-identity construal of *muu* has an entirely different source from the non-identity construal exhibited by *toinen*.

To further support my analysis, I presented asymmetries in the use of locative expressions derived from *toinen* and *muu*, as well as referential differences in the interpretation of *toinen* and *muu* when they modify collective nouns, and show that these data patterns can be explained by my proposal.

By identifying the key meaning components of *toinen* and *muu*— including the shared notions of anaphoricity and distinctness, and the notion of set complementation which I claim is crucial for *muu*—this paper seeks to provide a foundation for future work that can further contribute to our understanding of the semantic landscape of *other*-type expressions.

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