A syntactic approach to the Argument-Per-Subevent Condition
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Introduction. Levin & Rappaport Hovav (1991, 1998, 2010) (LRH) have influentially argued that verbs fall into two semantic classes: Manner and Result, differing in the parameters of entailing manner of actions or result states. LRH contend that Manner/Result has grammatical consequences for argument realization patterns: only manner verbs are argued to permit non-selected objects and object deletion (1), whereas result verbs do not (2).

(1) a. All last night, John swept.  
   b. John scrubbed his fingers raw.
(2) a. *All last night, John broke.  
   b. *John broke his hands bloody.

LRH argue that the lexicalization of Manner/Result determines argument realization: verbs from roots encoding (result) states disallow non-selected objects/object deletion. The logic behind this can be traced to the Argument-Per-Subevent Condition (1998, 2001) (ASC): there must be one argument in the syntax per subevent in the event structure. Under LRH’s account, result verbs must express the patient of the change of state/location since they lexicalize a BECOME subevent of which the patient is the sole participant. Since manner verbs lexicalize an ACT subevent, LRH predict they will allow non-selected objects/object deletion.

Proposal. (a)Empirical data show the ASC holds as a descriptive generalization iff it is severed from LRH’s semantic verb classes. We show the lexicalization of the BECOME subevent in a change-of-state predicate is granted independently of the verb, even if a result verb is involved. (b)We argue this follows if roots do not come with a grammatically relevant specification for Manner/Result, but acquire it on the basis of their association with the syntactic structure. (c)We argue against LRH’s claim that the lexicalization of Manner/Result determines argument realization and in favor of severing such a lexicalization from the idiosyncratic properties of roots. Theoretical Backdrop: We adopt a neo-constructionist approach to argument structure. Following Mateu (2012), Mateu & Acedo-Matellán (2012), i.a., we assume (a) there is a structure building operation responsible for the expression of result: a Small Clause Result-like predicate (Hoekstra 1988) embedded under v. Following also Embick (2004), Harley (2005), i.a., we assume (b) roots are interpreted as Manner/Result depending on their association with the syntactic structure: roots adjoined to v provide a manner component, whereas roots in a SC complement of v denote result states.

Data & Analysis. (i) The first set involves result verbs with non-selected objects (contra LRH) where the direct object is not interpreted as undergoer of the action named by the verb, but as undergoer of a transition lexicalized independently of the verb, by APs (3) or PPs (4).

(3) a. With a few slices of her claws, she tore him free.  
   b. Samson, who ripped him free of his bindings and pulled him to safety.  
(4) a. Jackfish cleaned the mud out of the car.  
   b. We blasted the tops off mountains.

(3)-(4) challenge the ASC as intended in LRH: they involve a BECOME subevent and a result verb, yet the subject of the BECOME subevent (=the object DP) is not theta-selected by the verb. In (3a), the object him becomes free and not torn, despite the verb being of the result type. This argues against LRH’s claim that result verbs always realize the argument of the BECOME subevent. Yet, our division of labor between roots and syntactic structure allows us to straightforwardly account for (3) and keep the ASC valid: the verbal roots in (3) are externally merged with the v head, providing the manner co-event of a change-of-state predicate whose final state is lexicalized by an AP independent of the verb. Namely, \( \sqrt[\text{TEAR}} \) is lexicalizing an ACT subevent in (3a), regardless of tear being a result verb. Consistently with our claim, the selected object of tear (=the undergoer of the tearing event, e.g., some ropes or
chains) need not be expressed in the predicate. This is a welcome prediction of the ASC insofar as the object of an ACT subevent is not an argument of that ACT subevent.

The same analysis applies to the examples in (4): in (4a) the object DP the mud is the undergoer of a change-of-location event whose final location is specified by the PP out of the car, although the verb (clean) refers to a change-of-state event. Namely, the BECOME subevent in (4a) is not realized by the verb, despite clean being a result verb. Rather, clean is providing the manner (ACT) co-event of a change-of-location (BECOME) event. This explains why the undergoer of the cleaning (the car) is not the argument of the BECOME subevent, but functions as the landmark for a change-of-location event. Thus, the ASC holds for (3)-(4) iff our view on roots as elements devoid of grammatically relevant information is entertained.

(ii) The second set involves constructions that under LRH’s approach might be said to involve object deletion insofar as there is simply no (direct) object being realized (cf. (1)).

(6) a. The bullets ripped into the tissue of his back and shoulder. (GloWbE)
   b. Molten nuclear fuel can melt through the reactor’s safety barriers. (GloWbE)

We analyze these as unaccusative predicates where the subject of the predicate is interpreted as the argument of a change-of-location event, while the argument of the result named by the verb is not licensed as such but only as a landmark for the change-of-location.

(7) [vP [v MELT] [DP a hole]] (Scientist just melted a hole = make a hole by melting)

(iv) The fourth set involves result verbs displaying an activity reading and object deletion. We claim in (10) result verbs lexicalize an ACT subevent in the absence of a BECOME subevent, as in (8). Namely, (10) involves a root merged with v in the absence of other overt complements ([vP [v KILL] [KILLS]]. In LRH’s terms, this corresponds to an ACT subevent with a null object, therefore showing that result verbs permit object deletion to some extent.

(10) a. Smoking kills.  b. Alcohol dehydrates. (from Mangialavori Rasia & Ausensi 2020)

Implications. The present analysis further argues against Manner/Result Complementarity as intended by LRH: contra LRH’s claim that result roots, in contrast to manner roots, are always integrated as complements in the event structure. The present data show that roots that semantically encode result states can be integrated as manner modifiers and lexicalize an ACT subevent, instead of a BECOME subevent, contrary to what LRH’s approach would predict.

Conclusion. (a) Empirical data provided here show LRH’s claim on the argument realization options of result verbs is too strong. (b) We have argued against LRH’s claim that the lexicalization of a manner or result component by the root determines the argument structure of the surface verbs. (c) We have proposed that the elasticity of result verbs can only be accounted for if roots do not have a grammatically relevant specification for manner or result, but acquire it on the basis of their association with the syntactic structure. (d) This, in turn, has allowed us to keep the ASC valid as a descriptive generalization about the architecture of (sub)event structure and the realization of the arguments participating in these (sub)events.

**Negative comparison between exactness, ignorance, and evaluativity**

**Puzzle.** Consider the negative comparison expression *no more than n* and the negative comparison expression *not more than n*. These expressions look extremely similar. Naively speaking, they also carry the same non-strict comparison meaning, *less than or equal to n*. However, they differ in major ways, as shown below: *no more than n* yields an exact meaning (EX) but *not more than n* does not (NO EX). And *no more than n* give rise to an evaluative meaning (EVAL) whereas *not more than n* gives rise to ignorance (abbreviated as NEG-IG, to mark the fact that it arises in the presence of negation, and thus distinguish it from the better known ignorance effect that arises in positive contexts, POS-IG, which I believe has a different source).

(1) Cody found *no more than 10* marbles. (2) Cody found *not more than 10* marbles.

= She found ≤ 10 marbles. = She found ≤ 10 marbles.

⇝ She found exactly 10. (EX) ⇝ She found exactly 10. (NO EX)

⇝ Speaker thinks this is few. (EVAL) ⇝ Speaker not sure how many. (NEG-IG)

**Existing literature and this talk.** All these patterns are noted in Nouwen (2008) (who cites Jespersen 1949, 1966, who in turns credits Stoffel 1894). A solution is also offered for EX. This solution however suffers from important drawbacks, as I show, and no solution is offered for NO EX, NEG-IG, and EVAL. In this talk I reconsider all and propose solutions for all.

**Proposal: EX.** Nouwen (2008) notes that Horn (1972)’s classical view of scalar implicatures straightforwardly derives EX. However, due to independent issues with this view for modified numerals known since Krifka (1999), Nouwen (2008) adopts instead Fox and Hackl (2006)’s Universal Density of Measurement (UDM) view of scalar implicatures, which he shows can also capture the EX pattern for *no more than n*. Still, Mayr (2013) shows that there are significant issues with the UDM view as a solution for the scalar implicatures of modified numerals also, and ends up proposing a solution of his own. In the talk I show that, like UDM, this view suffers from empirical (and conceptual) issues also. Indeed, I show that, with certain systematic gaps aside, modified numerals give rise to all the scalar implicature predicted by the Horn (1972) view, that none of the alternatives to this view can capture all these patterns, and that the gaps themselves can be addressed in a principled way once we consider the interaction between scalar implicatures and IG-POS, as well as independently known issues of granularity. In short, my proposed solution for EX is the classic Horn (1972) view considered and dismissed by Nouwen: *no more than n* asserts $\neg > n$ and, by negation of its non-entailed scalar implicatures (henceforth, SA), implicates $\neg\neg > n-1$, which is $> n-1$, so altogether means $= n$.

**Proposal: NO EX and IG.** The Horn view of scalar implicatures can explain why *no more than n* carries an exact meaning, EX, but not why *not more than n* does not, NO EX, nor why instead it carries ignorance, NEG-IG. Why is *not more than n* different? I propose that NO EX and NEG-IG come from the following: A scalar under *not* has as SA not just the negated versions of its scalemates but also their positive counterparts, obtained, e.g., by deleting *not* (as on the structural view of SA generation). Thus, *not more than m* has as SA not just expressions of the form *not more than n* but also expressions of the form *more than n*. This makes it such that the SA of a scalar under *not* are actually symmetric. Thus, not only do they not give rise to an exact meaning, capturing NO EX, but they also give rise to ignorance, capturing NEG-IG. The reason why negative comparison expressions that are otherwise identical may differ in that one gives rise to EX and the other to NO EX+IG-NEG is thus because some negations, like *not*, can be deleted in SA-generation, while others, like *no*, cannot.

**Proposal: EVAL.** We have argued that the solution to all of EX, NO EX, and NEG-IG lies with SA. But what is the solution to EVAL? In the following I will argue that it involves SA also.

Before we spell out the solution for EVAL, a note concerning EX, NO EX, and NEG-IG. Although we have generally upheld the Horn view of scalar implicatures, we have been agnostic.
about how exactly these implicatures come about. On the original view from Grice, implicatures are a matrix phenomenon. However, the literature has shown that they occur at embedded levels also. This has led to the view that scalar implicatures are computed in the grammar via a silent exhaustivity operator akin to a silent only, O. I adopt this view also. Specifically, I assume that the key to EX, NO EX, and NEG-IG is exhaustification of the SA via O, where \( O_C(p) \) asserts \( p \) and negates its alternatives in \( C \) that are not entailed by \( p \) (Chierchia 2013).

Now, regarding EVAL, adopting a similar discussion of evaluative effects in the literature from Crnič (2011), I propose that it involves an additional exhaustification of an item’s SA via another silent exhaustivity operator akin to a silent even, E, where \( E_C(p) \) imposes a presupposition that \( p \) is less likely/more noteworthy than all its alternatives in \( C \). Here we need to clarify two points. First, which SA are we talking about? Crnič (2011) discusses cases where the scalar element is an end-of-scale item, but our numeral expressions are typically not end-of-scale, so their SA-set contains both weaker and stronger SA. I propose that, while O pitches a prejacent up against those of its SA that it does not entail, E pitches it up against those of its SA that it does entail. For example, E pitches no more than 10 up against SA such as no more than 11/12/… Second, how is likelihood assessed? A natural assumption is that ‘least likely’ aligns with ‘logically strongest’. However, if the prejacent is always compared to the SA that it entails, the presupposition of E will always be trivially satisfied. I propose, following similar suggestions for other items in Crnič (2011), that both the prejacent and the SA are all in fact used by E in an exact sense, as if pre-exhaustified via \( O_{SA} \). Thus, what is compared is actually \( O_{SA}(\text{no more than } 10) \) = exactly 10 vs. \( O_{SA}(\text{no more than } 11) \) = exactly 11, and so on.

As a result, Cody found no more than 10 marbles gives rise to the scalar presupposition that the speaker thought that Cody finding exactly 10 marbles was less likely than her finding, e.g., exactly 11 marbles. This explains why no more than 10 marbles sounds like few (or, mutatis mutandis, why Cody found no less than 10 marbles sounds like many!), capturing EVAL. The reason why some negative comparatives give rise to evaluative interpretations is because some allow, or prefer, silent strengthening via E(ven), whereas others don’t.

Predictions. I will argue that all the proposed solutions make welcome predictions more generally. The proposal for EX: We have mentioned some already, and more will be given in the talk (or appendix, if time doesn’t permit). The proposal for NO EX and NEG-IG helps capture why, e.g., Coby didn’t find more than 10 marbles does not convey that she found exactly 10 but does convey that the speaker isn’t sure how many of 0-10 she did find, or why Cody didn’t talk to Alice doesn’t mean that she talked to everyone else. Finally, the new proposal for EVAL helps capture why Cody found at least 3 marbles sounds like she found many marbles, but also why, e.g., Coby is already young sounds odd. Note: Of course, any predictions for more than or at least can also be replicated, mutatis mutandis, for less than and at most.

Conclusion and outlook. Negative comparatives pose a triple challenge: They vary with respect to whether they give rise to an exact meaning, and some give rise to ignorance whereas others give rise to evaluativity. The existing literature offers some suggestions, but for the most part the triple challenge remains unmet. I offer a solution for each challenge. The solutions are all anchored in scalar alternatives, but innovations include: (1) a rehabilitation of the Horn (1972) view of scalar implicatures; (2) the suggestion that the scalar alternatives of scalars embedded under certain negations include not just negative but also positive variants; and (2) the suggestion that evaluativity in scalar expressions more generally comes from exhaustification via E(ven) relative to exhaustively interpreted variants of the entailed scalar alternatives.

Plural morphology in Shan: Noun, Classifier, or Measure term?  
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Classifier languages often lack obligatory plural morphology on nouns (as noted by Greenberg 1972; Chierchia 1998; a.o.), but many of these languages have a lexical plural morpheme, such as Mandarin (e.g., Cheng & Sybesma 1999, Bošković & Hsieh 2012), Japanese (e.g., Ueda & Haraguchi 2008), and Korean (e.g., Lee 1992). Using fieldwork data from Shan, a Southwestern Tai language, this paper argues that the plural morpheme in Shan functions as a measure term meaning ‘group’ which can co-occur with the singular numeral classifier in N-N compound constructions.

**Data.** Shan bare nouns are number neutral and require classifiers to appear with numerals like many classifier languages. Shan has a plural morpheme \( \text{ts`y} \), which marks plurality in definite contexts and functions as a numeral classifier for kinds. It can appear with humans, animals, and objects. This morpheme appears in many of the same positions as numeral classifiers (e.g., \( \text{t`o} \) for animals), such as with a numeral, as in (1), with a demonstrative, as in (2), or with a relative clause, as in (3).

\[
\begin{align*}
(1) & \quad \text{m`a`a s`a`am t`o/ts`y} & (2) & \quad \text{m`a`a t`o/ts`y n`a`j} & (3) & \quad \text{m`a`a t`o/ts`y ?`a`n n`o`n} \\
& \text{dog three CLF/ts`y} & & \text{dog CLF/ts`y this} & & \text{dog CLF/ts`y COMP sleep} \\
& \text{‘three dogs’/} & & \text{‘this dog’/} & & \text{j`u` IPFV} \\
& \text{‘three kinds of dogs’} & & \text{‘these dogs’} & & \text{‘the dog that is sleeping’/} \\
& & & & & \text{‘the dogs that are sleeping’}
\end{align*}
\]

Based on whether the plural morpheme can (Japanese, Korean; Kim & Melchin 2018) or cannot (Armenian; Borer 2005) co-occur with numeral classifiers, previous work has discussed whether the plural morpheme appears in the same functional head as the classifier. On the surface, the Shan plural morpheme can co-occur with a numeral and classifier, shown in (4), in a position where a numeral classifier cannot appear. Other measure phrases can do the same, as in (5). However, (4)–(5) also show that there is optionally a separate plural morpheme or measure term that appears in the head noun position of a compound noun (\( \text{ts`y m`a`a-k`h`o} \ ‘group of jujube’ \)).

\[
\begin{align*}
(4) & \quad (\text{ts`y}) \text{m`a`a-k`h`o s`i`p h`o`j ts`y n`a`j} & (5) & \quad (k`o`y) \text{m`a`a-k`h`o s`i`p h`o`j k`o`y n`a`j} \\
& \text{ts`y fruit-jujube ten CLF ts`y this} & & \text{pile jujube ten CLF pile this} \\
& \text{‘these ten jujube.’} & & \text{‘this pile of ten jujube.’} & & \text{(MEASURE)}
\end{align*}
\]

**Analysis.** To account for this data, I claim that the first \( \text{ts`y} \) in (4) functions as part of a N-N compound adding the meaning ‘group’, just as it does in (6). Similarly, ‘pile’ in (5) is a measure term, and the initial noun ‘pile’ forms a compound with ‘ten jujube’. In (1)–(3), \( \text{ts`y} \) has the function of a classifier or measure term and thus has the same distribution as one. Jenks (2011) also describes the Thai (Southwestern Tai) plural morpheme as a measure word. This analysis follows Jenkins’s (2011) analysis for Thai classifiers and Nomoto’s (2013) analysis of classifier languages. The semantics for the noun form and measure term form are in (7) and (8). (9) gives the structure of (4).

\[
\begin{align*}
(6) & \quad \text{ts`y luk-h`e`n} & (9) \quad \text{NP} \\
& \text{ts`y child-study} & \text{ClfP} \\
& \text{‘group of students’} & \text{Dem n`a`j} \\
(7) & \quad [\text{N-} \text{ts`y}]= \lambda x. \text{[GROUP(x)]} & \text{ts`y} & \text{ts`y} & \text{‘ten jujube’} \\
(8) & \quad [\text{CLF-} \text{ts`y}]= \lambda P \lambda x. [P(x) \& \text{GROUP(x)} \\
& \quad & \& \neg \exists y (P(y) \& \text{GROUP(y)} \& y < x)] & \text{Clf} & \text{t`j} & \text{this} \\
& \quad & \text{(based on Nomoto 2013)}
\end{align*}
\]
Count and Measure. Some, such as Cheng & Sybesma (1999), have argued for separating classifiers from ‘massifiers’ (measure words). This distinction seems correct for Shan with the caveat that measure words can function as classifiers for the measurement terms they describe. Rothstein (2016) proposed that measure phrases can have different syntactic and semantic forms when they have a count or measure function. The syntactic differences between counting and measuring in Shan can be seen in examples (10)–(12). When there is an action pertaining to the container noun kók ‘cup’ in (10), the container head noun is obligatory. When the sentence is about the contents of the container, the container head noun is disallowed as in (11). When the distinction between contents and container is not relevant (see Partee & Borschev 2012), the container head noun is optional, as shown in (12).

(10) COUNT
háw ?áw #(kók) nám sáam kók têk
I take cup water three cup break
‘I broke three water cups/#cups of water.’

(11) MEASURE
they pân (#kók) nâm sáam kók sàu ti nâu mò
add give cup water three cup put at in pot
‘Add three cups of water/#water cups to the pot.’

(12) CONTAINER+CONTENTS
háw ?áw (kók) nâm sáam kók mâa pân khêk
I take cup water three cup come give guest
‘I brought three cups of water for the guests.’

Clearly there is some overlap between how the plural morpheme and measure terms can be used, as (4)–(5) demonstrated. I would argue that the plural morpheme tsỳ typically does not appear as the head noun at the beginning of (2) because the tsỳ construction often has a CONTAINER+CONTENTS interpretation, making the contribution of the head noun tsỳ not very informative. In contrast, the plural morpheme in (1) is likely being used with a MEASURE interpretation.

Conclusion. The plural morpheme tsỳ is a noun meaning ‘group’ that can function as a measure term. It can also form a compound with a noun that has already combined with a numeral and classifier, showing that it is different from the regular classifier. A closer look at the syntactic differences between COUNT, MEASURE, and CONTAINER+CONTENTS uses of measure terms can help explain why the plural classifier sometimes functions as the head noun of a N-N compound and sometimes functions as a classifier in definite or numeral-classifier expressions. There is much more to explore for this construction, particularly looking at the group versus plural distinction.

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Unifying Concessive Conditionals and Unconditionals in Japanese
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Synopsis: The Japanese morpheme *temoldemo*, attaching to a clause, indicates that the clause is an antecedent of either a concessive conditional or an unconditional. This study proposes that the both usages can be derived from the same underlying semantic definition. Furthermore, this study seeks for a possible extension of the proposal to the nominal domain.

Concessives and Unconditionals in Japanese: In Japanese, an antecedent of concessive conditionals is marked by the morpheme *temoldemo*, which I will note as TEMO hereafter. The same morpheme is also used to mark an antecedent of unconditionals. Compare (1) and (2). Notice that the latter contains the indeterminate pronoun *dare* in the antecedent.

(1) Alex-ga ki-temo uresii.
Alex-NOM come-TEMO happy.
‘Even if Alex comes, I will be happy.’

(2) Dare-ga ki-temo uresii.
Who-NOM come-TEMO happy.
‘Whoever comes, I will be happy’

Generally, the meaning of concessive conditionals ‘*p*-TEMO *q*’ is constructed from the components in (3).

(3) a. ‘if *p*, *q*’

b. Among the contextually relevant alternative propositions *s* ∈ *C*(*p*), *p* is the least likely (or nearly least likely) proposition such that ‘if *s*, *q*’ holds. (‘Likelihood implication’)

For unconditionals, there are two important components of the meaning. Firstly, it expresses *indifference*: the content of the antecedent does not affect the truth of the consequent. For instance, (2), the speaker’s state of being happy will be obtained whichever individual comes. Thus, as Rawlins (2013) points out, (2) entails the consequent *I will be happy*. Secondly, an unconditional form lacks the ‘least likely’ implication we observed above. (2) does not imply that the antecedent is the least likely condition to obtain the consequent.

Below, I will propose the semantics of TEMO which captures all of the above properties of concessive conditionals and unconditionals.

Proposal: I argue that the likelihood implication should be encoded directly into the morpheme TEMO as the English *even*. Following Rooth (1992), I propose the denotation for TEMO in (5). I also assume that a consequent of conditionals contains a (covert) modal expression and that a consequent is of type ⟨*st*, *st*⟩, waiting for the additional specification for the modal base to be saturated. (I abstract away details not crucially relevant to this study, such as an ordering source.)

(4) A consequent [[*q*]] = λ_{st} . λ_{w} . w_{s} . ∀ w′ ∈ ([f(w)] ∩ t) [q(w′) = 1]

(5) [[TEMO]] = λ_{p_{st}} . λ_{T(xt,xt)} . λ_{w} . T(p)(w) & ∀ s ∈ *C*(*p*) [T(s)(w) ≥_{L} T(p)(w)], where

a. *C*(*p*) is a set of alternative propositions for *p*.

b. T(s)(w) ≥_{L} T(p)(w) should be read as ‘T(s)(w) is at least as likely as T(p)(w)’.
The set $C_p$ is defined based on a proposition with focus. For instance, with the focus on the subject and the domain of relevant individuals $D_e = \{\text{Alex, Bob, Cathy, Dave}\}$, $C_p$ is defined as (6). Combining the ingredients, we derive the meaning of (1).

(6) $C_p$ for [[[Alex]$_F$ comes-TEMO]] = \{Alex comes, Bob comes, Cathy comes, Dave comes\}

(7) $\llbracket (1) \rrbracket = 1$ in $w$ iff
\[
\forall w' \in (\bigcap [f(w)] \cap [[\text{Alex comes}]]) \quad [[\text{I will be happy}]](w') = 1 \quad \& \\
\forall s \in C_p \quad [[\text{I will be happy}]](w)(s) \geq_L [[\text{I will be happy}]](w)([[\text{Alex comes}]])
\]

I utilize $\geq_L$ rather than $>_L$ because propositions with even generally do not necessitate that the asserted proposition is the sole least likely proposition. This assumption plays a crucial role in analyzing the unconditional TEMO.

Actually, the above definition is already able to derive the meaning of conditionals. The only assumption we need is that indeterminate pronouns denote a set of individuals, being of type $e$, as proposed by Shimoyama (2006).

(8) $\llbracket \text{dare} \rrbracket = \{x \mid x \text{ is a person in } D_e\}$

A set enters to a derivation via Hamblinian pointwise functional application. Ignoring TEMO, the antecedent of (2) will be denoted as (9).

(9) $\llbracket \text{Dare-ga ki} \rrbracket = \{p \mid \exists x \in D_e : p = \lambda w. \text{come}(x)\}$

Assuming again the same set of relevant persons above (i.e. $D_e = \{\text{Alex, Bob, Cathy, Dave}\}$), (2) involves a set of four concessive TEMO, as in (10).

(10) (I) $\lambda w. \forall w' \in (\bigcap [f(w)] \cap [[\text{Alex comes}]]) \quad [[\text{I will be happy}]](w') = 1$
\& \quad \forall s \in C_p \quad [[\text{I will be happy}]](w)(s) \geq_L [[\text{I will be happy}]](w)([[\text{Alex comes}]])

(II) $\lambda w. \forall w' \in (\bigcap [f(w)] \cap [[\text{Bob comes}]]) \quad [[\text{I will be happy}]](w') = 1$
\& \quad \forall s \in C_p \quad [[\text{I will be happy}]](w)(s) \geq_L [[\text{I will be happy}]](w)([[\text{Bob comes}]])

(III) $\lambda w. \forall w' \in (\bigcap [f(w)] \cap [[\text{Cathy comes}]]) \quad [[\text{I will be happy}]](w') = 1$
\& \quad \forall s \in C_p \quad [[\text{I will be happy}]](w)(s) \geq_L [[\text{I will be happy}]](w)([[\text{Cathy comes}]])

(IV) $\lambda w. \forall w' \in (\bigcap [f(w)] \cap [[\text{Dave comes}]]) \quad [[\text{I will be happy}]](w') = 1$
\& \quad \forall s \in C_p \quad [[\text{I will be happy}]](w)(s) \geq_L [[\text{I will be happy}]](w)([[\text{Dave comes}]])

I follow Rawlins (2013) in that the default universal quantificational operator is inserted on top of the composition. Then (2) is true in $w$ iff for all the (I) - (IV) are true in $w$. This proposal derives the facts we should explain. For the indifference implication, notice that the four antecedents together exhaust the possibility available in the given context. Then, the truth condition asserts that under any option my state of being happy is obtained, hence indifference. The lack of likelihood implication is due to the nature of the denotation. In order for each of the four propositions not to contradict with each other, for all $s$, $t$ in the set it should be the case that $s =_L t$. That is, for all the conditionals if $p$, $q$ in the set must be equally likely. This is why the likelihood implication disappears.
**Extension:** *Demo* can also attach to an NP, and it induces a quite similar paradigm as above. If it attaches to a proper noun, it has the meaning of *even* (similar to concessives), and if it attaches to an indeterminate pronoun, it has a free choice reading (similar to unconditionals). I will argue that the present proposal can also be extended to these data.

(11) Alex-*demo* dekiri.
    Alex-DEM can.do
    ‘Even Alex can do it.’

(12) Dare-*demo* dekiri.
    who-DEM can.do.
    ‘Anyone can do it.’

**Theoretical Contribution:** The loose connection between scalar items (e.g. *even*), free choice items (e.g. *anyone*), and unconditionals (e.g. *whoever*) has been pointed out in the literature. This study will be a new contribution to stimulate the investigation of these constructions.