Semantic incorporation in English singular indefinites

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Abstract

In this paper, we introduce a class of exceptionally narrow-scoping singular indefinites in English (as in "John drove a car for several years before switching to a truck"), which pattern more closely with what have been termed weak definites in the literature (e.g., Poesio 1994, Aguilar-Guevara 2014, Carlson et al. 2006, Schwarz 2014) than with regular indefinites. While the existence of such exceptional English "weak" indefinites has been previously anticipated in Klein et al. (2013), the category is difficult to distinguish from simple narrow-scoped singular indefinites. Here, we argue that there is one environment where weak indefinites can be distinctively identified: namely, when they appear with for-adverbials. We sketch a concrete implementation of a semantic incorporation-based account for such indefinites, bringing them analytically in line with incorporation-based analyses of weak definites, building closely on the ideas in Klein et al. (2013) and Dayal (2011). We further discuss how the proposed analysis adjudicates between two competing analyses for for-adverbials, one which assumes that for encodes a universal quantifier (e.g., Deo & Piñango 2011) and another which takes for to be non-quantificational (e.g., Champollion 2013, 2016), in favor of the latter view.

1. Introduction

In this paper, we introduce a class of exceptionally narrow-scoping singular indefinites in English, an example of which is shown in (1a). These indefinites are crucially unlike their more regular counterparts in (1b), which do not receive covarying readings with *for*-adverbials. Instead, they seem closer to what have been termed *weak definites* in the literature (e.g., Poesio 1994, Aguilar-Guevara 2014, Carlson et al. 2006, Klein et al. 2013, Schwarz 2014) – represented in (2a), where the nominal *the bus* does not imply uniqueness of the described object, despite the presence of definite article *the*.

- (1) a. John saw a therapist for many years (for his anxiety).
 - → may have switched therapists one or more times
 - b. John dated a therapist for many years.
 - → single therapist
- (2) a. John rode the bus to work every day (for years).
 - → possibly different bus each day
 - b. John repaired the bus everyday.
 - → unique bus

Following a suggestion of Klein et al. (2013), we take the existence of indefinites like in (1a) to support an analysis of both (1a) and (2a) as semantically incorporated nominals – despite being DPs – over alternative accounts of weak definites that view the contribution of definite article *the* to be necessary for their characteristic properties. We sketch one concrete implementation of such an incorporation-based account. We then briefly discuss how this analysis can adjudicate between two competing analyses for *for*-adverbials, one which assumes that *for* encodes a universal quantifier (e.g., Deo & Piñango 2011) and another which takes *for* to be non-quantificational (e.g., Champollion 2013, 2016), in favor of the latter view.

2. An overview of semantic incorporation

Incorporation of bare nominal objects is a cross-linguistically well-attested phenomenon, in which the incorporated nominal has a closer-than-usual relationship to the verb it appears with. While initially construed as a process of morpho-syntactic fusion of the nominal with the verb, incorporation is now more commonly identified as exemplifying a set of characteristic semantic properties. This change has been driven at least in part by the identification of *pseudo*-incorporated nominals (e.g., Massam 2001, Dayal 2011), where the incorporated element is a full NP rather than an N, can stand alone independently of the verb, and may in some cases even permit modification or scrambling away from the verb.

The core semantic properties of (pseudo-)incorporated nominals include obligatory narrow scope, compatibility with non-singular *number-neutral* interpretations despite lack of plural morphology, and stereotypicality/well-establishedness, or *name-worthiness*, of the activity denoted by the verb + incorporated nominal. (It should be noted that while some version of *name-worthiness* is empirically well-established as necessary for nominal incorporation across languages, the exact bounds of what counts as name-worthy are not well understood and vary considerably.) Many of these properties are instantiated in the Hindi sentences in (3), containing the incorporated nominal *laDkaa* ('boy') – which appears without accusative case-marking otherwise required on non-incorporated, animate nominals in Hindi. *laDkaa dekhna* ('boy-seeing') in (3a) refers to the culturally familiar, *name-worthy* activity of family members looking for a bride(groom) for their children. Such name-worthiness is essential to allow incorporation. If we replace the verb in (3) with another that does not express a similarly name-worthy activity, like in (4), the noun is no longer understood to be incorporated – as seen from the fact that it is no longer allowed to appear without overt accusative case.

In (3a) it is further understood that Prachi's family probably looked at multiple boys in their quest to find her a suitable one, despite the singular morphology on the nominal. The incorporated nominal is an NP rather than N, given its compatibility with (limited) typical modifiers (3b), and its ability to scramble away from the verb (3c).

- (3) a. Prachi ke.liye (kaafi saalon se) uske parivaar waale laDkaa deekh rahe.hain.

 Prachi for many years since her family members boy see IMPF

 "(For many years,) Prachi's family is looking at boy(s) for her (to find a suitable one to marry)."
 - b. Prachi ke.liye uske parivaar waale **paDhaa.likhaa laDkaa** deekh rahe.hain.

 Prachi for her family members educated boy see IMPF

 "Prachi's family is looking at well-educated boy(s) (to find a suitable one for her to marry)."
 - c. Prachi ke.liye **laDkaa** uske parivaar waaley deekh rahe.hain.

 Prachi for boy her family members see IMPF

 "Prachi's family is looking at boy(s) for her (to find a suitable one to marry)."
- (4) Prachi ke.liye uske parivaar waale *laDkaa/laDke-ko maan rahe.hain.
 Prachi for her family members boy / boy-ACC believe IMPF
 "For Prachi's sake, her family members are believing the boy."

One consequence of re-imagining incorporation as a phenomenon characterized by semantic rather than morphological properties, and moreover as one where the incorporated element may be larger than just the nominal head, is that it now introduces the possibility of incorporated nominals even in a language like English, where singular nouns are typically accompanied by overt determiners. Indeed, at least one type of

English DP has been claimed an instance of semantic incorporation: namely, *weak definites* like in (2a) above.¹ These are the focus of Section 3.

3. English weak definites as semantically incorporated nominals

Some uses of English *the*, like in (2a), do not presuppose uniqueness of the described referent, in contrast to more regular uses like (2b) – repeated as (4a) and (4b) respectively. Such uses have been termed *weak definites* in the literature, and observed to have a severely limited distribution – appearing only within predicates that are plausibly *name-worthy*, similar to what we noted already for semantically incorporated nominals. For instance, while riding a bus can qualify as a culturally familiar, name-worthy activity to English speakers, repairing a bus does not. Accordingly, weak definite interpretation is allowed in (4a) but not (4b). Weak interpretations are also unavailable with nominal modifiers making the event type atypical, as in (4c), where riding a broken bus does not count as a name-worthy activity. Similarly to the Hindi examples in (3), (4a) is compatible with John having taken more than one bus on his way to work – perhaps a different one each day, or even a change of bus on a single day – despite singular morphology on the nominal.

- (4)a. John took **the bus** to work every day.
 - → possibly different bus each day
 - b. John repaired the bus everyday.
 - → unique bus gets repaired everyday
 - c. John took the broken bus to work everyday.
 - → unique broken bus

Given such sensitivity to name-worthiness as well as compatibility with co-varying/number-neutral readings, one type of analysis recently proposed for weak definites groups them along with semantically incorporated nominals in other languages (e.g., Schwarz 2014, Klein et al. 2013, Carlson et al. 2014). Under the specific implementation of this idea discussed in Klein et al. (2013), semantic composition relies only on the meanings of the verbal and nominal predicates – *ride* and *bus* in (1) – but not the article itself. As such, it is predicted that such DP-incorporation in English should not be restricted to definite nominals alone. Specifically: we should see analogous "weak indefinites", containing indefinite article *a.*²

Klein et al. (2013), in the course of a detailed investigation of weak definites, report experimental evidence suggesting that singular indefinites in contexts like (4a), and (5a) below, pattern with weak definites (5b), rather than regular indefinites (5c). For instance, in (5a)-(5b), go to a/the hospital is more likely to be interpreted as describing a scenario instantiating the name-worthy meaning of the VP, where the FedEx driver went to the hospital to get his health checked – and NOT to make a delivery. By contrast, (5b) is more likely to mean he went to the farm to make a delivery (and not to carry out a farming-related activity).

- (5) a. The FedEx driver had to go to a hospital.
 - b. The FedEx driver had to go to the hospital.
 - c. The FedEx driver had to go to a farm.

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¹ Another type of nominals in English that are candidates for an incorporation-based analysis are the bare singulars as in (i). Given the lack of overt determiners, it is plausible that these are NPs/Ns, rather than DPs. In this article, we restrict our focus to nominals with overt determiners, thus DPs, but which nonetheless exhibit properties akin to incorporated nominals.

⁽i) Bill is in **prison**.

² Other accounts of weak definites which analyze them as generics (e.g., Aguilar-Guevara 2014, Schwarz 2014) would also be consistent with the existence of something termed "weak indefinites", since English singular indefinites can have generic readings. However, only Klein et al. (2013) make the explicit prediction that incorporated/weak indefinites exist in English in what we argue is a empirically distinguishable way. As such, we focus on Klein et al's view here, leaving open the question of how the incorporation account for weak (in)definites relates to the generic account.

However, Klein et al. also note the difficulty in finding introspective evidence for the existence of weak indefinites, since they are "similar to other indefinite noun phrases in most semantic respects". That is, unlike weak definites which have semantic properties clearly different from their regular counterparts (such as non-uniqueness), "weak indefinites" might not be expected to differ at all from regular, narrow-scoped indefinites in the types of meanings they convey. For example, it is not possible to claim simply by looking at it that the co-varying reading of *a bus* in (6) indicates it is "weak"/"incorporated", since this is exactly what we would expect from a regular indefinite scoping under the quantificational adverbial *every day*.³

(6) John rode a bus to work every day.

Nonetheless, there does seem to be one environment where weak indefinites behave differently upon introspection from their regular counterparts: namely, when they appear with for-adverbials.

4. Exceptional narrow-scoping singular indefinites with for-adverbials

A well-accepted generalization concerning *for*-adverbials in the literature is that singular indefinites appearing with them are typically not compatible with non-singular, covarying readings (e.g., Zucchi & White 2001, Kratzer 2007, Champollion 2010). For instance, (7) necessarily conveys that John found the *same* flea over and over again, despite the implausibility of such an event. (See also (1b) above.)

(7) John found a flea on his dog for months.

(same flea each time)

In some cases like (8), adapted from Deo & Piñango (2011), a covarying reading of the indefinite has been noted to be available, but is thought to come about only due to the availability of the additional contextual/world knowledge-based cue that snowmen are built at regular intervals – namely, during the winter of each year.

(8) We built a snowman in our yard for many years.

(different snowman each winter)

Proposed accounts for (7)-(8) differ in how being able to infer an interval based on salient world knowledge helps generate covarying readings. In Champollion's (2013) non-quantificational view of *for*-adverbials, the common knowledge about when snowmen are built in (8) leads one to infer a covert distributive operator situated above the VP, perhaps paraphrasable as *every winter*, which introduces a universal quantifier. The singular indefinite scopes under this operator, leading to the expected covarying reading. But in the absence of a contextually salient interval, or "cover" – like in (7) – such an operator cannot be inferred, leaving the pragmatically implausible wide-scope reading of the indefinite as the only available one.

By contrast, Deo & Piñango (2011) take the *for*-adverbial to itself encode a universal quantifier over a "regular partition", returning true if each element of the partition overlaps with an occurrence of the VP event. A regular partition is defined as a set of equal-sized, mutually exclusive sub-intervals that exhaustively span a larger interval. When the sub-intervals are of infinitesimal lengths, they lead to durative reading of the event. When they are contextually inferable, non-infinitesimal intervals, like in (8), iterative readings arise. In the absence of contextual support, iterative readings are claimed to be unavailable, explaining the oddness of (7). Either way, what is presently important to us is only the stated empirical generalization regarding covarying readings of singular indefinites with *for*-adverbials: such readings are *not* obtained, unless regular-sized intervals demarcating each occurrence of the event can be contextually inferred.

The key novel empirical observation in this paper is that in certain cases like (9)-(14), covarying interpretations of the highlighted indefinites are available even in the absence of any contextually inferable cover/regular partition. In (9), the modifying adjunct indicates that the speaker has used more than one smartphone over the years, despite presence of a singular indefinite in the matrix clause. The length of

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³ Relatedly, Carlson(2003) suggests that all narrow-scope indefinites are incorporated, or VP-internal, unlike other presuppositional nominals positioned VP-externally. We don't assume this here, instead identifying "weak indefinites" like in (1a) as distinct from regular, narrow-scoped indefinites (1b). The noted interpretive contrast between them would seem to justify such a separation.

intervals for which they used each phone is irrelevant to the truth of (9), and indeed no regular intervals can be inferred. In this, (9) is crucially unlike (8). Similarly, it is irrelevant in (10) whether it was one or more than one car that was driven for several years. Given the average pet lifespan, the indefinite in (11) clearly refers to more than one pet, possibly owned over time intervals of different lengths – but again, these temporal details are irrelevant to what is being conveyed. The continuations in (12) and (13) make it clear that multiple boats were owned/therapists seen, despite the singular indefinite, though it isn't clear for how long each boat was owned, or at what intervals therapists were seen. In (14), it is understood that Jill drove a car whenever she needed to, and not at any inferable fixed intervals.⁴

- (9) I've used a smartphone for many years now, the first one being the Nokia 7650 back in 2002. (https://blogs.windows.com/devices/2011/06/13/five-days-with-an-s40-phone-day-one/)
- (10) If you are a new driver aged 20 or older, you can still expect to pay more for car insurance than someone of the same age who has driven **a car** for several years. (http://www.wholekitchen.info/what-age-does-car-insurance-go-down/)
- (11) This includes one-third of cat owners who have owned **a pet** for 35 years or more over the course of their lifetime. (https://faunalytics.org/wp-content/uploads/2015/05/Citation380.pdf)
- (12) We have owned a boat for years, our older boats had so many issues I got stranded on the lake 4 times in one summer. After that, we sold it and bought a newer model with only 30 hours. (http://discussions.texasbowhunter.com/showthread.php?t=718742)
- (13) She has been seeing a therapist for a few years now due to behavior issues. She started off seeing a therapist in the office, but she wouldn't open up, tried a few different therapists before they referred us to a home/school based therapist group.
- (14) Jill drove a car for years, first a Mazda and then a Honda, before switching to a truck for good.

A further contrast between the contextual-interval example in (8) on the one hand and (9)-(14) on the other, suggesting that the source of covariation is different between them, is that covarying readings in the latter vanish on adding atypical modifiers (that affect *name-worthiness* of the activity), as illustrated in (15)-(17), but are retained in similar variants of (8); see (18). It is worth mentioning that many of the examples in (9)-(14) fall into the category of chore/routine/hobby nouns, noted by Klein et al. (2013) as one canonical type of contexts that support weak (in)definite interpretations.

(15) John saw an accomplished therapist for years (for his anxiety). (unique therapist)

(16) I have used a broken smartphone for as long as I can remember. (unique phone)

(17) I have driven an expensive red car for years. (unique car)

(18) We built a huge snowman in our yard for many years. (one snowman per winter)

Covarying readings of the indefinite in (9)-(14) can also be altered by changing the verb, so that it is again no longer part of a name-worthy activity:

- (19) Beth repaired a smartphone for years (#, both iPhone and Android).
- (20) Naomi dated a therapist for several years (#, both young and old).

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⁴ To the best of our knowledge, the only other place where such data have been noted is Dayal (2011), footnote #30. She presents examples like "John smoked a pipe for twenty years" and "John drove a car for many years", originally attributed to Kratzer (p.c. with Dayal), which don't lead respectively to the inference that John smoked only one pipe or drove only one car. Dayal does not analyze these data; instead, the exceedingly few such instances from English are only noted in contrast to Hindi where (inanimate) bare singulars, by virtue of being semantically incorporated, are much more productively amenable to covarying readings.

(21) #We have sold a boat for many years, in all price ranges.

In their sensitivity to name-worthiness, and in allowing for covarying readings in atelic contexts (even in the absence of a contextually-determined interval), the weak indefinites in (9)-(14) behave like semantically (pseudo-)incorporated nominals in languages like Hindi, and also like their English weak definite counterparts, but crucially unlike regular indefinites in English. Given this, it seems reasonable to attempt an incorporation-based analysis for their scopal behavior with *for*-adverbials. One concrete implementation of such an analysis, and what it implies for the meaning of *for*-adverbials, is discussed in Section 5.

5. Analysis and implications

To account for exceptionally covarying readings of the indefinites in (9)-(14), one possibility is to appeal to explanations that have been proposed for semantically incorporated bare nominals within similar contexts in languages like Hindi (e.g., Dayal 2011), where covariation arises due to the verb scoping under a covert iterativity operator positioned immediately above it. Given the low height of this operator, regular, non-incorporated DPs don't scope under it, leading to the expected wide-scoped readings in (6). However, due to the semantics of incorporation, incorporated nominals end up scoping below the operator, leading to covarying readings. Importantly, assuming this parallel with bare nominals suggests that the determiner itself (the or a) in weak (in)definites makes minimal or no semantic contribution, consistent with Klein et al.'s proposal.

Concretely, let us suppose the analysis for pseudo-incorporation proposed by Dayal (2011) holds for (9)-(14) as well.⁵ On this account, an incorporating verb has a specialized semantics different from its non-incorporating versions, in that it selects a property of type <*e*,*t*> (corresponding to the incorporated nominal) rather than an individual of type *e*. Taking (1a), repeated below, as our working example, the incorporated verb *see* is defined as in (22) – most directly following van Geenhoven (1998), which Dayal (2011) admits as a possibility. The crucial thing to note about (22) is that the existential quantifier binding the object (Theme) argument is introduced *within* the verb denotation, so that it scopes under any operators above V.

(1) a. John saw a therapist for many years (for his anxiety).

(22)
$$see_{INC-V} = \lambda P.\lambda y.\lambda e.$$
 [P-see(e) & Agent(e)=y & $\exists x [P(x) \& Theme(e)=x]$]

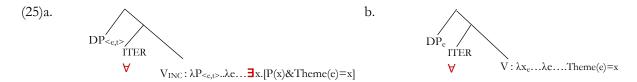
Following Dayal (2011), we assume that iterative readings in (7)-(14) are derived by composition with a covert ITER operator situated just above the verbal head. Like Dayal, we take ITER, when it combines with incorporating verbs, to be defined as in (23). ITER holds of a plural event E iff it is composed of more than one V sub-event, if no two sub-events overlap, and if there is a finite hiatus between them that does not contain another V-event. Composing (22) with this operator leads to (24).

(24) ITER(see_{INC-V}) = λ V. λ P. λ y. λ E. [Cardinality(E)>1 & \forall e, e' in E [P-see(e) & Agent(e)=y & \exists x[P(x)&Theme(e)=x] & P-see(e') & Agent(e')=y & \exists x'[P(x') & Theme(e')=x']

⁵ The exact analysis for incorporation doesn't matter, as long as it is ensured that the argument represented by the incorporated nominal is bound prior to composition with ITER. For alternatives, see Schwarz (2014) and Srinivas (2021).

&
$$\tau$$
(e) and τ (e') don't overlap
& \exists t [between(t, τ (e), τ (e')) & ! \exists e" s.t.[P-see(e") & Agent(e")=y & \exists x" [P(x")&Theme(e")=x]& τ (e")=t]]]]

The nominal argument, whether incorporated or otherwise, is merged after ITER has already applied. The key to the covarying readings of the incorporated nominals in (9)-(14) is that the internal Theme argument is bound within the verb denotation, so that the existence of a P-object is independently posited in each sub-event e and e'. The universal quantifier introduced by ITER scopes above the existential quantifier(s) binding the internal argument in see_{INCV}. By contrast, with non-incorporating verbs like in (7), the Theme is not existentially bound within the verb denotation; so ITER doesn't scope above it – thus precluding covarying readings. (25a) below represents the LF for incorporated constructions like (9)-(14), (25b) for non-incorporated ones like (7).



The assumption of a covert ITER is consistent with a measure-functional analysis of the *for*-adverbial as in Kratzer (2007) or Champollion (2013, 2016), wherein the adverb does not itself encode universal quantification. In fact, Champollion (2013) explicitly discusses iterativity in examples like (7) as arising due to ITER (though his definition of ITER differs from ours). The low-scoping ITER in (7) is claimed to be distinct from the VP-level covert distributive operator in (8), licensed via support from world-knowledge – so that non-incorporated indefinites (DP_e in 25b) can scope below the VP-level operator but not V-level ITER. One indication that ITER is separate from the VP-level operator, discussed in Champollion (2013), is that sentences like (8) – involving the VP-level operator and requiring regular intervals to be contextually inferred – are associated with higher processing costs than sentences like (26) containing ITER alone, which can be interpreted iteratively even without contextual support (which are in turn are costlier to process than durative sentences without any covert operators; see Deo & Piñango 2011 for a discussion of psycholinguistic studies supporting this latter result). The existence of (9)-(14), where singular indefinites covary even in the absence of contextually inferable regular intervals can be viewed as additional support towards the separation of these two operators.

(26) John found fleas on his dog for a month.

On the other hand, the use of ITER here is less compatible with a universal quantifier view of the *for*-adverbial, like in Deo & Piñango (2011). In their account, given that *for* itself is able to induce iterativity just as long as a non-infinitesimal regular partition can be contextually inferred, there is no need to further posit either a covert VP-level distributive operator requiring contextual support, or a covert V-level ITER. In fact, these authors explicitly reject the existence of covert ITER as an explanation for processing cost in iterative utterances over durative ones, and appeal instead to the additional effort needed to infer the identity of the regular partition. However, as we argued in Section 4, (9)-(14) don't have readings that can be accounted for by inferring a regular partition, making the covarying readings of the indefinite fully unexpected under this view regardless of its incorporation status.⁶

It may be possible to rescue an account like Deo & Piñango's by redefining the notion of regularity of partitions over which the quantificational *for*-adverbial is allowed to scope. That is, (9)-(14) do not work with this account because the repeated intervals involved are not regular in terms of their temporal structure,

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⁶ Per Deo & Piñango, iterative readings are *only* obtained in the presence of an inferable regular partition, making not only such readings in (9)-(14) puzzling (even aside from covariation of indefinites), but also their availability with bare plurals like in (26) surprising, as discussed in Champollion (2013).

but perhaps the notion of "regularity" could be generalized to one that encompasses habituality/repetitiveness or even *name-worthiness* of the VP event. However, positing *name-worthiness* as a factor relevant to the meanings of *for*-adverbials would directly point towards the question of whether these data should receive an incorporation analysis after all, somehow integrated with the quantificational account of *for*-adverbials. That is, more would need to be said about what it means for the semantics of *for*-adverbials and incorporation to both be sensitive to a property so established with nominal incorporation, and why the narrow-scoping semantics of incorporated nominals is not by itself sufficient to explain their covariation with English *for*-adverbials. Thus, all else being equal, we take (9)-(14) to more straightforwardly support a non-quantificational, Champollion-esque view of *for*-adverbials, compatible with a very low-scoping ITER.

6. Conclusion

In this paper, we identified previously unstudied, systematic occurrences of English singular "weak" indefinites that take exceptional narrow scope with iterative readings of *for*-adverbials. We observed that these facts find a natural explanation under an analysis that treats them as instances of semantically incorporated nominals, comparable to what some have suggested for their weak definite counterparts in English. The existence of weak indefinites is directly predicted by a view such as in Klein et al. (2013), where the article itself does not contribute semantic (in)definiteness, in line with how incorporation works in *determinerless* languages. As such, the current work may be taken as consistent with this type of implementation of an incorporation-based analysis. The analysis sketched in this paper also supports a non-quantificational view of *for*-adverbials, where quantification is contributed by other (covert) operators, over a view where *for* initializes a universal quantifier.

While we have treated the weak (in)definite articles here as being semantically vacuous, identity functions, this needs to be refined in future work. Klein et al. (2013) discuss one option where the article modifies the whole VP instead of just the nominal. Another possibility to consider is the recent account for definiteness by Coppock & Beaver (2015), which views English *the* as compatible with weaker uniqueness presuppositions than what has been traditionally claimed, developed with the goal of reconciling English nominals containing overt articles with bare nominals in determinerless languages.

Finally, we note one unresolved fact about the distribution of weak indefinites: they don't fully overlap with weak definite uses; instead, weak indefinites appear to be distributed more widely in terms of allowable NPs. From Klein et al. (2013), we would expect weak definites to occur in all contexts that allow weak indefinites; however, replacing the indefinite article in (1a), or (9)-(14), with *the* does not retain the weak readings:

(27) John saw the therapist for many years.

(unique therapist)

This observation is not in itself surprising. Such non-interchangeability has been noted even between weak definites vs. bare singulars like jail or school – where the jail or the school are incompatible with weak readings. To explain the difference in distributions of weak definites vs. indefinites, Klein et al. (2013) suggest that weak definites are allowed only when the activity is known to be "familiar" to the agent or habitually performed by them (owing to the definite article's sensitivity to familiarity; Heim 1982, Kamp 1981), while weak indefinites occur in more unfamiliar contexts relative to the agent. However, in (27), this explanation would lead us to expect availability of the weak definite interpretation, since it is being conveyed precisely that therapist-seeing is a habitual activity performed by the agent, John. An alternative explanation therefore seems necessary. We leave this puzzle open, as one we hope to investigate in future work: what are the bounds of "name-worthiness" in nominal incorporation?

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