

DETERMINERS AND WEAKLY DISCRETISED DOMAINS*

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1. *The issue*

There is a link between the structure of the domain of a noun and the types of determiners it can combine with. Chierchia (1998) classifies determiners into four classes on this basis, i.e. countable only determiners—number sensitive and hence subdivided into singular determiners, e.g. *each* and *every*, and plural ones, e.g. *several*—mass only determiners, e.g. *much*, plural count and mass determiners, e.g. *most*, and unrestricted ones, e.g. *the* and *no*. According to his analysis, a singular countable noun is associated with a set of atoms, and the set-forming operator PL is used to enable us to talk about sets of them. Conversely, the lexical entry of a mass does not single out the set of atoms, but a sublattice, so that the difference between singular and plural is neutralised, for the noun applies equally to atoms and sets thereof. Hence, plural count nouns and mass are essentially the same, and it is claimed that no language has determiners for the mass and singular count combination. See also Doetjes (2001) for a similar claim. In Tovena (2001, 2002), however, I have shown that this claim is not correct. There exist singular determiners applying also to mass nouns, e.g. the Italian determiner *nessuno* “no/not any” combines with count singular (1a) and mass (1b) but not with plural (1c) nouns.

- (1) a. *Non ha letto nessun libro.*
“He did not read any book.”
b. *Non ha nessuna pazienza coi bambini.*
“He has no patience with children.”
c. **Non ha letto nessun(i) libri.*
“He did not read any books.”

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I also pointed out a shortcoming in Chierchia's analysis. According to his characterisation, mass nouns are expected to be all alike, as their domains have only one type of structure. However, it is a linguistic fact that the class of mass nouns may systematically split with respect to one determiner, cf. (2). Note that the reading of (2a) is not the so-called taxonomic reading, exemplified in (3), which is in general available for mass nouns thanks to an operation of coercion that imposes a discretisation of the domain via the notion of species or kind (Ojeda 1993).

- (2) a. *Non ha mostrato nessuna pietà.*
 "He showed no mercy."
 b. **Non ha bevuto nessuna acqua.*
 "He drank no water."
 (3) *Non beve nessun vino, né bianco, né rosso, né chiacchiere.*
 "He does not drink any wine, be it white, red or rosé."

In Tovena (2001) I have argued that the subset of (abstract) mass nouns that *nessuno* combines with are intensive quantities (IQ) (Van de Velde 1996).¹ The main peculiarity of IQs is their possibility of undergoing continuous increase or contraction without a corresponding extension in space or time. The group of IQ nouns has special syntactic/semantic behaviour with respect to several determiners. I have hypothesized different possible levels of discretisation in the domain of denotation of a noun. Strongly discrete units qualify traditional atoms, and occur through the stipulation of the lexical entry. Thus, they are present in the domain of countable nouns but absent from the domain of uncountable nouns in general. As individuals, they can be 'seen' by quantifiers and be identified directly or via anaphoric links. Weakly discrete units correspond to units that are found in the domain of IQs and that can be 'seen' only in particular conditions. No default visible units are present in mass domains.

This paper tests the idea of weakly discrete units on a number of cases and tries to define conditions on their visibility to singular determiners. First, to this aim, section 2 provides a formal characterisation of the notion, which exploits the notion of equivalence classes. The members of such classes are undistinguishable from one another, and can be pointed at only if their lack of identity is respected. Then, section 3 discusses visibility conditions in the case where a determiner does not partition its domain. Section 4 considers

¹ Culioli (1982) mentions three properties that, when applied to common nouns, would give the following classification: the term 'discret' ("discrete") covers count nouns, 'dense' ("dense") covers mass nouns—and is understood as being in between—and 'compact' ("compact") covers IQs, which are considered as absolutely non discretisable. However, I have been unable to trace a proper discussion of this distinction in his work.

determiners that do not return the same value for all the elements in the domain. The consequent discrimination can be operated on weakly discrete units if it does not lead to the identification of the referents of the witness sets (Barwise and Cooper 1981; Szabolcsi 1997).

2. Units and atoms

The use of a lattice to describe the domain of denotation of a noun requires the specification of a set of entities E on which an ordering relation R is defined. In the case of countable nouns, the set E contains all the naturally discrete entities denoted by the singular noun, and the ordering relation R is usually constituted by the relation of membership, dubbed ‘component relation’ by Chierchia. To be precise, Chierchia uses subset instead of membership as the ordering relation, so that he never has sets of sets in his lattice. The lattice represents the extension of the singular together with the plural forms. Each form can be used to single out a portion of the lattice, the atoms for the singular and the sets for the plural.

In the case of uncountable nouns, the whole lattice is the denotation of a sole lexical form. As is traditionally done, the lattice is built on a set of elements E—which are the minimal parts of the extension of a mass noun—and the ordering relation R ‘part-of’, cf. Figure 1 from Szabolcsi and Zwarts (1993). These minimal parts are represented as individual entities, as needed in order to build the structure, but do not qualify as atoms in the sense understood for count lattices. They are not singled out by the lexical form.

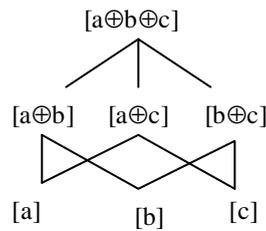


Figure 1: *The free join semilattice for masses*

Chierchia proposes to use the same structure for count and mass nouns, with the only difference being that the ordering relation is interpreted either as ‘component-of’ or ‘part-of’. In Tovena (2001), I have reinterpreted his proposals in terms of visibility of the units. According to my proposal, atoms ordered by ‘component-of’ qualify as strongly discrete units. They can be accessed directly via the lexical entry, which makes them visible in all contexts, e.g.

quantificational or anaphoric. As the entry of a mass noun does not directly single out the mereological parts in the domain, no visible default units are present in it. This is to say that atoms ordered via a ‘part-of’ relation are not visible.

In the taxonomic reading of mass nouns, different kinds of N identify different subdomains (Ojeda 1993), so that they constitute the atoms of the entire domain, even when they denote subdomains of the atomless kind and can be atomless themselves. They represent the countable sense of the mass noun. Although no overt lexical material is needed to trigger the discretisation by kinds, as is the case for count readings induced by classifiers in general, this possibility is available only as secondary selection, and is typically used as a rescue strategy, cf. (3) above.

However, the relevant reading of (2a) has to do with amounts/degrees of mercy rather than with types. This difference is captured by assuming that there are weakly discrete units, which correspond to units that are found in the domain of IQs. These units are not induced by measuring, e.g. via classifiers, or conversion, cf. the taxonomic reading, and are weak inasmuch as they can be ‘seen’ only in particular conditions. They do not carry an identity condition based on the mereological extensionality of concrete mass nouns. I have proposed to represent the denotation of an IQ via a structure of non-free join semilattice like the one put forth by Szabolcsi and Zwarts (1993) to characterise amounts, cf. Figure 2, and which is an abstraction of the free lattice used for masses.

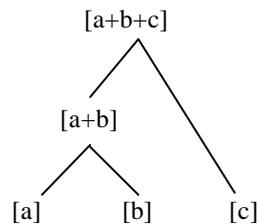


Figure 2: A *non-free join semilattice*

As claimed by Szabolcsi and Zwarts, in the lattice in Figure 1 the elements [a], [b] and [c] represent real stuff, and the sum of [a] and [b] needs to be distinguished from the sum of [a] and [c]. Both sums are entities with a size of two units, but they each have their own identity. The difference with the lattice in Figure 2 is that here the identity of the bits of stuff has been taken away, and [a], [b] and [c] are abstract unit-sized bits. ‘Fixing an arbitrary unit-sized [a] to start

with, [b] stands for the equivalence class of all unit-sized bits of stuff whose addition to [a] yields a two-unit-sized bit” (Szabolcsi and Zwarts 1993:267), and this two-unit-sized bit is noted as [a + b].² Next, “[c] stands for the equivalence class of all units whose addition to [a + b] yields a three-unit-sized bit”, noted as [a + b + c].

If p is a proper part of q , then there is some part of q (the witness) that does not overlap with p (Landman 1991:314). Note that the sign ‘+’ indicates a progression along a continuum. Being abstract and allowing for the definition of a scale, the lattice in Figure 2 resembles a chain, a special case of lattice used for numbers, more than the standard representation for masses given in Figure 1, as pointed out by Szabolcsi and Zwarts. On the other hand, they present the witness property as a way to capture what distinguishes amounts from numbers. An increased amount is obtained by considering more stuff than in the previous amount, rather than just moving higher on a scale. But IQs are masses with no standard extensional unit of measure.

Given this background, weakly discrete units can be understood as atoms perceivable insofar as they are representative of their equivalence class but not as distinct entities members of the same class. Next, IQs’ lexical entries may be associated with the units via the classes. This is to say that these lexical entries may behave as count nouns in suitable contexts. The condition for the visibility of weakly discrete units can be expressed in terms of a constraint according to which a particular unit can be used if it holds that all the members of the same class are equally good candidates for that use.

3. *Constant functions*

In this section we start our review of singular determiners and show that the notion of weak unit can explain contrasts such as (2a,b), unaccounted for in previous formal systems.

3.1 *Negative and positive determiners*

The level of discreteness provided by weakly discrete units is enough to satisfy the requirement of a singular negative determiner such as *nessuno* for the following reasons. Strongly discrete units are not needed because we are dealing here with a negative quantifier, whose witness set is empty by definition. At no stage in the interpretation of the quantified phrase will it be necessary to single out a particular individual. All the elements are treated in the same way and this determiner can be represented by a constant function, i.e. a function that maps all the elements of the domain into the same value. The acceptability of (1b) and

² The equivalence class [a] is made up of a, b, c, etc. where a, b, c are arbitrary units of a given set, and [a + b] is the equivalence class containing the sum of two arbitrarily chosen and disjoint units.

(2a) is the result of the interaction between a weakly discretised domain and a determiner that does not partition the denotation of the noun, as it denotes an empty intersection. The use/visibility of weak units is licensed by the constant function determiner. The subdivision into weakly discrete units can be exploited by Chierchia's domain restrictor *S*, a function defined only on atomic denotations, so that the characterisation of *nessuno* as singular determiner can be preserved.

The French negative determiner *aucun* "no/not any" provides another example of a determiner that exhibits similar, apparently non homogeneous, behaviour with respect to uncountable nouns, clustering IQs together with singular countable nouns, as shown in (4).

- (4) a. *Il n'a pris aucun livre.*
 "He did not take any book."
 b. *Il n'a montré aucune pitié.*
 "He didn't show any mercy."
 c. **Il n'a vu aucun étudiants.*
 "He didn't see any students."
 d. **Il n'utilise aucun sable.*
 "He uses no sand."

This line of reasoning seems promising for all singular determiners whose denotation can be represented by a constant function, not just for negative ones. It solves the problem raised by sentences such as (5), predicted to be impossible in Chierchia's account.

- (5) He still had every confidence in her as a mathematician.

Sentence (5) says that the whole of his confidence applies to her. In this case, the quantified NP has a unique witness set that coincides with the whole denotation of the noun. Such a set may be identified without making use of strongly discrete units as it doesn't partition the noun denotation. As noted in Cooper (1990), *every* allows for the possibility of a general evaluation of the witness set, 'in batch'. Such a possibility results in (5) in the reading as 'whole' which is the only one available. This reading may be the result of a negative proof, i.e. a search for contradiction on the restricted complement set, which is empty.

On the contrary, the singular universal determiner *each* does not combine with mass nouns of any type, cf. (6). As explained above, the taxonomic reading is immaterial for the present study. The case of *each* can be dealt with by

assuming that the verification of the property of distributivity relies on the full individuality of strong units.

- (6) a. She put each apple in a different basket.
 b. *He still had each confidence in her in every situation.
 c. * She summoned up each courage in the predicaments.

The analysis extends also to French polarity sensitive and free-choice item *le moindre* ‘‘the least’’.³ Although this determiner is not a constant function, strictly speaking, it points to an end-of-scale position and can be equated to a universal or negative quantifier depending on the direction of the inferences on the scale, cf. (7), a behaviour that justifies its inclusion in this section. Its concessive value equates all individuals as possible referents of the det N' expression. In these conditions, weak units can be seen and IQs are acceptable, while (plurals and) mass nouns in general are out, cf. (8).

- (7) a. *Il n'a pas lu le moindre livre.*
 ‘‘He did not read a single book.’’
 b. *Il connaît le moindre recoin du village.*
 ‘‘He knows every nook and cranny of the village.’’
 (8) a. *Il n'a pas montré le moindre courage.*
 ‘‘He did not show the least bit of courage.’’
 b. **Il n'a pas lu le moindre livres/les moindres livres.*
 ‘‘He didn't read any books.’’
 c. **Il n'a pas bu la moindre eau.*
 ‘‘He did not drink a drop of water.’’

3.2 Subject and object positions

The contrast in (9) may suggest that there is a subject/object asymmetry in the acceptability of IQs with *nessuno*. However, as shown in (10), IQs are not completely ruled out from subject position.

- (9) a. *?*Nessuna paura attanaglia Daniele.*
 no fear clamps Daniel
 ‘‘No fear clamps Daniel.’’
 b. *Daniele non ha nessuna paura.*
 Daniel not has no fear
 ‘‘Daniel is not at all afraid.’’

³ For a discussion of the polarity sensitivity and free-choiceness of this item, see Tovena and Jayez (1999); Jayez and Tovena (2000, forthcoming).

- (10) *Nessun coraggio basterà contro un nemico così perverso.*
 no courage suffices-FUT against an enemy so perverse
 “No courage will suffice against such a twisted enemy.”

Weak units cannot support the presupposition usually associated with a topic position (Lambrecht 1994), whether it is called givenness (Schwarzschild 1999) or activation (Dryer 1996). The taxonomic reading, which would rescue a sentence in the general case of mass nouns, seems not to be available and (9a) is unfelicitous. In (10) the main predicate enhances the amount reading and *così* “such a” also favours a comparison between degrees of qualities.

It could be asked whether IQs have absolutely no taxonomic reading. This is the position of Van de Velde (2000), who argues against this type of reading on the basis of French examples such as (11) containing the test expression *quel* “what/which”:

- (11) ??*Quelle admiration a-t-il pour son père?*
 “What admiration does he have for his father?”
- (12) a. *Nessuna ammirazione coglie Daniele quando parla col presidente.*
 “No admiration seizes Daniel when he talks to the president.”
- b. *Nessuna paura è così forte come quella di Daniele per le formiche rosse.*
 “No fear is as strong as the one felt by Daniel for red ants.”

In the light of Figure 2 and the sentences in (12), I suggest that, if such a reading exists, it corresponds to a change in the ordering relation imposed in the lattice, specific to this type of coercion, but it does not cause an alteration of the structure of the lattice of IQs in the sense that it does not induce a reanalysis of subdomains of it as atoms of a new structure. Hence it does not have the usual dramatic impact as a rescuing strategy. If pragmatically plausible, types would also correspond to a variation in intensity.⁴

Note that a classification based on an external factor—e.g. ‘different fears’ can be named on the basis of their different causes, cf. (12b), not on the basis of internal differences like a fear for ‘sparkling’ or for ‘plain’ water—involves a countable use of the noun, which then can take the plural.

⁴ My position finds support in the Spanish data in (i), provided by a reviewer. The two sentences present a partition of ‘respect’ into amounts that may be used also as subdomains for a taxonomy.

- (i) a. *Ana no tiene ninguna consideración con los animals.*
 “Ana has no consideration/respect for animals.”
- b. *Ana no tiene ningún tipo de consideración con los animales.*
 “Ana has no consideration/respect for animals.”

4. *Non constant functions*

Given the tack I have taken on constant functions, one would expect no determiners characterized as non constant functions to combine with IQs. This is not always the case. However, it will be clear from the discussion below that existential determiners that combine with IQs are of a special kind that does not disclose the identity of the elements in the denotation.

Let us look first at a case that meets our intuitive expectations. In the case of the singular positive Italian determiner *qualche* “some”, for instance, some individuals would have to be singled out, because of the various witness sets with cardinality greater than zero. As a result, the quantified NP cannot be built with mass and is acceptable only with count nouns, cf. (13).

- (13) a. **Ha risposto con qualche rabbia.*
 “He answered with some anger.”
 b. *Qualche libro merita di essere letto.*
 “Some book deserves to be read.”

French *quelque/s* N “some” is a more complex case. It is a countable determiner that can be analysed as the combination of a singular and a plural determiner subject to different distributional restrictions. The plural determiner distributes freely, cf. (14).

- (14) a. *Il a rencontré quelques amis dans le train.*
 “He met some friends on the train.”
 b. *A-t-il rencontré quelques amis?*
 “Did he meet some friends?”
 c. *S’il a rencontré quelques amis dans le train, il rentrera tard.*
 “If he met some friends on the train, he will be home late.”
 d. *?Il n’a pas rencontré quelques amis.*
 “He did not meet some friends.”

The marginality of (14d) can be reduced to the general issue of the expression of an existential quantifier in the scope of negation. Sentence (14d) is felt to be awkward and, if ever, is used as denial. When the intended interpretation is $\neg\exists$, French marks it overtly by using either the partitive form *des amis* “friends” or a negative form such as *aucun ami* “no friend” that makes clear that the expression has to be interpreted in the scope of predicate negation. When the intended interpretation is $\exists\neg$, it is more natural to prepose the existential using the corresponding of a *there*-construction as in (15).

- (15) *Il y a quelques amis qu'il n'a pas rencontré dans le train.*
 "There are some friends he did not meet on the train."

On the contrary, the singular determiner—a form which is rarely used in spoken language, and is perceived as having a literary flavour also in written language—undergoes restrictions due to the fact that, roughly put, the entities in its denotation must remain nonspecific. In other words, assuming the standard tripartite structure, the identity of the individuals in the denotation of the restrictor is asserted not to matter. For this purpose, *quelque* "some" exploits modality and aspectual features of the clause, when combining with countable nouns, cf. (16b-e) below, and does not combine with concrete mass nouns. However, it does combine with IQ nouns, and in such case the restrictions just mentioned need not be met (Culioli 1982). Two different questions have to be tackled to account for the distribution of singular *quelque*. On the one hand, one should characterise the requirement provisionally labelled as nonspecificity which imposes constraints on the context of occurrence. This is a problem that concerns the determiner as a whole.⁵ On the other hand, one should explain why such a requirement appears to be waived specifically when this determiner combines with IQs. Although I am concerned with the second question in this paper, some remarks on the first one are in order.

Culioli identifies three types of environments suitable for hosting singular *quelque*. Environments of the first type have a 'valeur d'éventualité' ("possibility value"), which could be reinterpreted as corresponding to most examples of contexts containing a non-veridical operator (Zwarts 1995), cf. conditional in (16b), epistemic in (16c), negative predicate in (16d), question in (16e).

- (16) a. **Hier il a rencontré quelque ami dans le train.*
 "Yesterday he met some friend or other on the train."
 b. *Si quelque difficulté apparaît, il va abandonner l'affaire.*
 "If he meets any difficulty, he will drop the matter."
 c. *Il aura rencontré quelque ami.*
 "He must have met some friend."
 d. *Je doute qu' il ait rencontré quelque ami.*
 "I doubt he met some friend."
 e. *Est-ce que quelque incident serait survenu?*
 "Could any accident have occurred?"

Singular *quelque* is not natural in affirmative episodic sentences and does not occur in the scope of overt negation, cf. (17). Thus, non-veridicality appears

⁵ A formal treatment is put forth in Jayez and Tovenà (2002).

not to be a sufficient condition for capturing its distribution, which approximates that of free choice items (FCI).

- (17) **Il n'a pas rencontré quelque ami.*
 "He did not meet some friend."

However, FC *any* is out in the epistemic rephrasing of (16c), cf. (18). This contrast could be ascribed to the fact that epistemic *must* in (18) is an evidential (Westmoreland 1995), i.e. a lexicalised label providing information about the proposition, and contributes the information that the propositional content of the sentence is inferred rather than just believed by the agent. Information is presented with a stronger flavour of truth, although it is not overtly/plainly known as a fact.

- (18) *He must have met any friend.

Next, *quelque* does not occur under a modal of possibility, cf. (19). Note that (20) does not prove that *quelque* occurs under a modal of necessity, which would be in contrast with what happens with FCIs. In fact, (20) is interpreted as a conditional.

- (19) **Il peut rencontrer quelque ami.*
 "He may meet some friend."
 (20) *Il faut avoir quelque protecteur à la cour pour y faire quelque chose*
 (Culioli)
 "You need to be sponsored by someone in the court to get anywhere."

The second type of environment identified by Culioli is claimed to have a 'valeur d'itération' ("repetition value"). It roughly corresponds to generic and habitual sentences, cf. (21). Generic sentences are suitable contexts for FCIs too, cf. (22).

- (21) a. *Tous les jours, en allant à l'école, je rencontrais, près du ruisseau, quelque clochard endormi.* (Culioli)
 "Every day, on my way to school, I met a/some beggar sleeping by the stream."
 b. *Chaque jour je butais sur quelque nouveau problème.* (Culioli)
 "Every day I stumble on a/some new problem."
 c. *Une rivière mène toujours à quelque endroit habité.*
 "A river always leads to an inhabited place."

- (22) a. *N'importe quel étudiant sait ça.*
 “Any student knows that.”
 b. Any cat hunts mice.

However, the generic examples expose another difference between FC items and *quelque*. In (22), and more generally with this type of context, phrases containing FC items are themselves interpreted as generic. On the contrary, in (21), *quelque*-phrases are not generic themselves, they are simply nonspecific.

These first two groups of contexts may look like reasonably close variants of the same conditions of use because the det N' expression tends to be interpreted as referring to a potential, not to a real specific individual, as claimed in Van de Velde (2000). However, it is important to stress the fact that this idea of potential individual is not incompatible with the existence of a referent. In (21a) particular individuals are met. The sentence asserts that some particular events occurred, hence cannot be characterised as strictly non-episodic. Actually, this sentence is compatible with a situation where I always meet the same beggar. What matters is that the identity of the individual is presented as non available, just the general properties described by the N' can be taken into consideration as a valid characterisation of the entity. On this non availability of individual properties is constructed the generic reading, since the sentence is interpreted as expressing a regularity and not a set of isolated facts.

Indeterminacy is emphasised by Van de Velde (2000) with respect to the third group singled out by Culioli. He classifies examples such as (23) as cases containing a modal marker expressing a ‘valeur d’indéfinition’ (“indefiniteness value”), which seems to correspond to an indetermination value whereby any instantiation is equally valid.

- (23) a. *Quelque vague général, qui se trouvait disponible, se vit confier les rênes de l'Etat.* (Culioli)
 “Some sort of general, who happened to be available, was entrusted with the reins of the state.”
 b. *Ne l'avait-il pas traité, dans quelque feuille d'opposition, d'“obsédé sexuel de la ligne droite”?* (Culioli)
 “Hadn't he called him a “sex maniac of the (straight?)/right line”, in a/some paper of the opposition?”

Up to here, *quelque* appears to meet the constraints imposed on FCIs and to mimic their behaviour, e.g. in the case of negative sentences, except for the case of modals of possibility and for its role in generic sentences. Furthermore, it exhibits some sort of indeterminative value, which is an intuitive trademark of

free-choiceness. However, contrary to French FCIs such as *n'importe quel* "no matter which" and *le moindre* - cf. the contrast between (16e), repeated here as (24a), and (24b) with (25a) - it can occur in yes-no questions. In such a context English *any* has a primary polarity sensitive reading, cf. (25b), and can acquire a FC reading when bearing some stress. Furthermore, *quelque* is also not allowed in comparatives, a traditional licensing context, cf. (26).

- (24) a. *Est-ce que quelque incident serait survenu?*
 "Could any accidents have arisen?"
 b. *Est-ce qu'il a eu quelque incident?*
 "Has he had any accident?"
- (25) a. *?Est-ce qu'il a lu n'importe quel livre?*
 "Did he read just any book?"
 b. Did he read any book?
- (26) a. **Elle a mieux sauté que quelque (autre) fille de sa classe.*
 "She jumped better than some girl in her class."
 b. *Elle a mieux sauté que n'importe quelle (autre) fille de sa classe.*
 "She jumped better than any other girl in her class."
 c. She did a better jump than any other girl in her class.

From these data we are led to conclude that *quelque* is out in all the contexts where *any* receives universal interpretation. This difference also holds with respect to a potential indiscriminative value (Horn 2000) of *quelque* (27) vs. the traditional one of *just any* (28a). This value is also exhibited by *n'importe quel* in contexts where it functions semantically like an adjective (28b), which is not possible for *quelque*, cf. (27b). This is because with *quelque* the speaker does not commit herself to any selection inside the category N', but from there it does not follow that the identity of the individual does not matter.

- (27) a. *Quelque imbécile a dû fermer à clé la porte de la cave.*
 "Some idiot must have locked the door of the cellar."
 b. **Ce n'est pas quelque acteur, c'est Monsieur X.*
 "It is not just any actor, it is Mister X."
- (28) a. It is not just any book.
 b. *Ce n'est pas n'importe quelle actrice, c'est Madame X.*
 "It is not just any actress, it is Madam X."

As said above, when *quelque* combines with IQ nouns, context restrictions need not be met. The sentences in (29) show that positive contexts become suitable environments, but not for mass nouns at large, cf. (29c).

- (29) a. *Il a montré quelque courage.*
 “He showed some courage.”
 b. *Il y a quelque hypocrisie à prétendre cela.*
 “It is a little hypocritical to claim that.”
 c. **Il a bu quelque eau.*
 “He drank some water.”

This limited waiving effect can be explained by recalling that the entities denoted by IQ nouns cannot be specific in any type of context, because a weakly discretised domain is structured as a non-free join semilattice, whose elements have no individual identity. Thus, there is no need for modal or epistemic contexts that suspend existential commitments and are referentially opaque. If my hypothesis is on the right track, then the behaviour of *quelque* should be distinguished from that of more traditional free choice items insofar as it does not suggest that the choice of the referent is free because any member of the class corresponding to N' satisfies the property of the nucleus. Rather, more modestly, it suggests that the class corresponding to N' must contain a subset of elements with cardinality ≥ 1 that qualify as satisfiers of the property of the nucleus. This suffices to leave the identity of the referent unspecified, but does not bring about the load of full free choice, whereby, roughly put, the interpretation of the determiner is infelicitous if it is built on the same set of satisfiers in all the relevant worlds. For *quelque* to be felicitous, somewhere, in some world, there must be the possibility of having an entity for which the predicate is true, even if it is not in an accessible world. The result is an indefinite like *a* without the possibility of being specific.

Recall that *any* also exhibits interpretive variations connected to the structure of the domain of denotation of the noun. There is an increased facility for licensing in the direct object position of a negative verb whenever the N is mass, cf. (30a) which has a preferred FC reading of *any* and (30b) a preferred polarity sensitive reading (Tovena 1998).

- (30) a. He refused any offer of sympathy.
 b. He refused any sympathy.

Finally, let us look at French indefinite *un certain* “a certain”.⁶ When combined with continuous entities, this determiner brings in discontinuity/discretisation. In the general case, this discontinuity requires the presence of an adjective modifying the noun that offers the qualitative criterion

⁶ A full analysis of this expression is provided in Jayez and Tovena (2002).

for subdividing the domain into species. No adjective is required with IQs and the discontinuity is based on units interpreted as degrees of intensity, cf. (31).

- (31) a. *un certain courage*
 “a certain courage”
 b. **une certaine eau*
 “certain water”

As weak units are directly accessible, no qualification is required. Given the type of semilattice used for describing the structure of the domain of IQs, a degree interpretation is possible if we conceive degrees as ordered intervals.

5. *Summary and concluding remarks*

In this paper, I have clarified the notion of weak units by making explicit its formal characterisation and shown that it is possible to build a quantifier by combining a singular determiner and a mass noun of the IQ type provided the lack of identity of the weak units in the domain is respected. A series of singular determiners characterised as denoting constant functions has been reviewed, that use weak units because they never single them out. Therefore, weak units can be ‘seen’ in these cases. Then, I have reviewed a series of determiners characterised as denoting non constant functions, that cannot use weak units except under the tight condition of never relying on the identity of a potential referent.

In sum, it has been shown how the notion of weakly discrete units, visible to determiners, provides help to account for the distribution of singular determiners expressing constant functions, and allows a unified account of several ‘potential irregularities’ in the distribution of singular existential determiners.

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