PSYCHOLOGICAL VERBS AND THEIR ARGUMENTS[*]

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ABSTRACT. In this paper it is argued that objects of subject experiencer psychological verbs do not have kind reference, but rather refer to individual object entities: specific individuals, generic plurals, and even entity correlates of a property. We argue that objects of transitive subject experiencer psychological verbs must refer to atoms or sums of atoms, because they presuppose the existence of the Target-of-Emotion. Focusing mainly on data from various Romance languages and Russian, we also argue that the Target-of-emotion of psychological verbs such as *odiar* 'hate' cannot refer to a kind entity, conceived as an abstract individual or an abstract sortal concept, but instead can refer to a maximal sum of individual entities, instantiated through a generic plural.

Keywords. transitive subject experiencer psychological verbs; individual object entities; Catalan; Spanish; English; Russian

RESUMEN. En este artículo se argumenta que los objetos de los verbos psicológicos de experimentante sujeto no admiten referencia a clases, sino que se refieren a objetos individuales: individuos específicos, plurales genéricos, e incluso entidades que son correlatos de una propiedad. Proponemos que los objetos de los verbos psicológicos transitivos de experimentante sujeto deben referir a átomos o sumas de átomos, porque presuponen la existencia de un *Target-of-Emotion*. Centrándonos sobre todo en datos de distintas lenguas romances y del ruso también proponemos que el Target-of-emotion de los verbos psicológicos de la clase de *odiar* 'hate' no pueden referir a una clase, concebida como un individuo abstracto o como un concepto sortal abstracto, pero en cambio sí pueden referir a una suma máxima de entidades individuales, instanciadas en forma de un plural genérico.

Palabras clave. verbos psicológicos transitivos de experimentante sujeto; entidades individuales de objeto; catalán; español; inglés; ruso

1. Introduction

The aim of this paper is to provide an answer to two main questions. First, why do transitive subject experiencer psychological verbs (henceforth, SEVs for short) only allow object arguments that refer to particular individuals with a specific reading or to sums of individuals with a generic or a specific reading? As pointed out in the literature (cf. Carlson 1977, Laca 1990, Dobrovie-Sorin & Laca 1996, 2003, Chierchia 1995, Kratzer 1995, i.a.), and the examples from English, Catalan and Russian in (1) to (3) show, a non-specific existential interpretation for these data is out (Rothmayr 2009).[1]

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[1] We hereby compare English, Catalan and Russian, because (i) much of the literature on generic reference is on English, (ii) Russian seems to be semantically parallel to English but has no overt

(1) English
   a. I hate *dogs*.   *generic / #non-specific existential*[2]
   b. I hate *some dogs*.   *specific individuals* or *specific subkinds*
(2) Catalan[3]
   a. Odio   *els gossos*.   *generic* or *definite specific*
      hate.1sg the dogs
   b. Odio   *uns/alguns gossos*.   *specific individuals* or *specific subkinds*
      hate.1sg some   dogs
   c. *Odio   *gossos*   *#non-specific existential*
      hate.1sg dogs
(3) Russian
   a. Ya   nenavižu *sobak*.   *generic / #non-specific existential*
      I   hate   dogs.ACC
   b. Ya nenavižu *nekotoryx sobak*.   *specific individuals* or *specific subkinds*
      I   hate   some.ACC dogs.ACC

The second question can be formulated as follows: why are SEVs the only ones that may select generic plural objects (definite plurals in Romance, bare plurals in English and -apparently- also in Russian), but not generic kind expressions conceived as integral abstract entities with no instantiation whatsoever of the members of this kind expression? That is, why is it the case that these verbs do not allow object arguments that refer to definite kinds (Borik and Espinal 2015, in press), definite generics (Carlson 1977), or singular generics (Chierchia 1998). Consider the examples in (4) to (6).

(4) English
   a. I hate *the dog*.   *definite specific / #generic*
   b. I hate *the rottweiler*.   *definite specific / #generic*
(5) Catalan
   a. Odio   *el gos*.   *definite specific / #generic*
      hate.1sg the dog
   b. Odio   *el rottweiler*.   *definite specific / #generic*
      hate.1sg the rottweiler
(6) Russian
   a. Ya nenavižu *sobaku*.   *definite specific / #generic*
      I hate   dog
   b. Ya nenavižu *rotveilera*.   *definite specific / #generic*
      I hate   rottweiler

As a reply to the first question we will argue that SEVs, as non-eventive psych verbs, presuppose the existence of two particular individual entities involved in the

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articles, and (iii) Catalan (as representative of Romance) distinguishes between generic definite plurals and expressions with kind reference.

[2] For the purposes of this paper we use the notion of specificity in a rather informal way, as a referential property of nominal expressions that cuts across the distinction of definite vs. indefinite. For a more technical distinction between definiteness (associated with familiarity) and specificity (associated with referentiality), see von Heusinger (2002).

[3] It should be noted that in (2a) *els gossos* 'the dogs' may refer either to all instantiations of the kind dog, or to all specific dogs salient in the discourse model we are considering. In (2b) *uns gossos* 'some dogs' refers either to some individuals of the kind dog or to different subkinds of dog.

psychological relationship, one corresponding to the Experiencer and a second one corresponding to the Target-of-Emotion. Objects of SEVs must be specific or generic because of this presupposition of existence of individual entities (either atoms or sums of atoms), not because these verbs lack an eventuality argument (cf. Kratzer 1995, Glasbey 2006). This hypothesis accounts for the fact that objects of SEVs cannot be property-denoting expressions, and cannot take the form of existential bare plurals in Romance.

As a reply to the second goal, and focusing on Romance data, we will argue that the Target-of-emotion of SEVs such as *odiar* 'hate' must be an individual entity, either an atom or a plurality of atoms, but cannot denote abstract definite kinds, conceived as abstract sortal concepts.

The paper is organized as follows. Section 2 presents a review of (part of) the literature on types of verbs / predicates and types of generic arguments, and aims to understand why psychological verbs form a specific class of predicates that can only take object arguments that refer to generic plurals or to specific individuals. Section 3 describes some relevant cross-linguistic data and focuses on the one hand on the contrasts between English and Romance (Catalan, Spanish and Portuguese), and on the other on data from Russian, a language that –in spite of the absence of overt articles– distinguishes between psychological experiencer verbs that only allow objects that refer to individual entities, either generic or specific, and those that only allow bare plurals in non-accusative case with a generic interpretation. In this section 3 we introduce a subject-object asymmetry, since it appears that only the Experiencer can have a kind reading, and we argue that the illusion of kind experiencers appears exclusively in sentences that convey I-genericity. We also show that the object of SEVs at which the emotion is targeted must refer to an individual entity or to a maximal sum of individual entities. Section 4 discusses the possibility for the Target-of-Emotion to be a gerund or an infinitive, and we argue that non-finite verbal forms (as well as derived nominal expressions) are allowed as Target-of-Emotion because they refer to entity correlates of properties (Chierchia 1984, McNally 2009).

2. Types of predicates and types of generic arguments

Let us start this section with the main semantic characteristics associated with SEVs.

2.1. Types of predicates

First, SEVs have been claimed to behave like *individual-level* (from now on i-level) predicates (Fábregas & Marín 2015). I-level predicates (as opposed to stage-level predicates, Carlson 1977) are identified, at least roughly, with permanent or near-permanent properties of the *subject* (either an external or an internal argument). In other words, they are claimed to introduce properties that are supposed to be true throughout the existence of an individual, since they lack a Davidsonian argument (Kratzer 1995:).[4] However, it should be noted that SEVs –as observed from (1) to (6)– impose interesting constraints on their objects, which must be interpreted as referring either to generic plural entities or to specific individuals, and in this respect their inclusion in the class of i-level predicates does not provide any explanation for this particular behaviour.

Second, SEVs have been also claimed to be *stative*. They denote pure and

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[4] According to Kratzer (1995:126), "stage-level predicates are *Davidsonian* in that they have an extra argument position for *events* or *spatiotemporal locations* (Davidson 1967). Individual-level predicates lack this position".

homogeneous states because they do not introduce any (left or right) aspectual boundary, and therefore the predicates these verbs correspond to are cumulative and divisive (Fábregas & Marín 2015:208). The stativeness of SEVs is argued for on the basis of:

(i) the incompatibility of SEVs with the progressive periphrasis, as illustrated in the Spanish example in (7) (F&M 2015:184, (29a));

(7)　　*Juan *está amando* a　　María.
　　　　Juan　is　loving　DOM María
　　　　Intended reading: 'Juan is loving María right now'

(ii) the incompatibility of SEVs with adverb modifiers that apply to the dynamic part of an event (e.g., *lentamente, poco a poco* 'slowly'), as illustrated in (8) (F&M 2015:178, (13b));

(8)　　*Juan detesta　a　　María *poco a poco*.
　　　　Juan　hates　DOM María slowly

(iii) the incompatibility of SEVs with temporal modifiers whose general goal is to highlight the starting point of an eventuality (e.g., *tan pronto como* 'as soon as'), as shown in (9) (F&M 2015:181, (23a));

(9)　　??*Tan pronto como*　admires a　　tu　hermano, nos　vamos.
　　　　As　soon　as　　admire DOM　your brother　we　go

(iv) the incompatibility of SEVs with temporal quantification, because they do not involve anything more than a state without boundaries (e.g., *cada vez que, siempre que* 'whenever'), as illustrated in (10) (F&M 2015:183, (25b));

(10)　　**Cada vez que* odia　las películas de　terror, se　va　　del
　　　　every time that hates　the movies　of　horror CL goes　from.the
　　　　cine.
　　　　cinema

(v) SEVs, being stative, are not compatible with locative modifiers (cf. Kratzer 1995), as exemplified in (11) (Silvagni 2017:458, (1b)).

(11)　　*Ana adora a　　su　perro *en su　casa*.
　　　　Ana　loves DOM　her　dog　in her house

Note that exactly the same set of restrictions described from (ii) to (v) also applies to Catalan and Russian, except for (i), as there is no progressive periphrasis in Russian. These are two of the languages on which we will focus in Section 3. However, note also that none of these properties, which are meant to support the stativeness of SEVs, can account for the specific restrictions these verbs have with respect to their objects.

Third, SEVs –as i-level predicates– have been claimed to be *inherent generic,* which can be understood as either implying that they must be postulated as occurring under the scope of a Gen-like null quantificational adverb that binds eventualities

(Chierchia 1995), or as implying that their bare plural arguments (in a language such as English) are always interpreted as names of a kind (Carlson 1977). However, in this paper we aim to focus on the observation that SEVs are inherently generic exclusively in the sense that they are the only ones that assign a generic interpretation to their plural objects:[5] "the theme argument of [SEVs] gets assigned a generic reading, which in English is manifested with a bare nominal and in Spanish forces the compulsory use of the definite article" (F&M 2015:183).[6] What is crucial is that only SEVs can have a generic plural object, and it is essentially this characteristic of SEVs that must be correlated with another generalization that applies to this class of verbs: the fact that they are non-incorporating verbs (Mithun 1984).[7]

Fourth, SEVs are included in the class of *psychological* predicates, characterized by a subject/dative Experiencer argument (cf. Class I and Class III in Belletti & Rizzi 1988) and a second argument that must be conceived as the Target-of-Emotion or Subject-Matter-of-Emotion (Pesetsky 1995). Most characteristically, these predicates do not have an extra argument position for events or spatiotemporal locations (Kratzer 1995), a phenomenon that has been syntactically described in such a way that the Experiencer is not construed as undergoing a change of state. This lack of an extra argument position, which has been characterized in syntactic terms by means of a [-e] feature by Glasbey (2006), has been associated in semantic terms with the lack of existential bare plural objects in English (Glasbey 2006:144). See (1a), which does not allow a non-specific existential reading for the object *dogs.* Consequently, according to Glasbey, predicates such as *like, love, hate* are claimed to generalize over eventualities and serve to generalize over individual ('liking', 'loving' or 'hating') experiences. Once again, however, this approach does not account for the restrictions that motivated this research; that is, the need for either generic plural objects (bare in English and Russian, but definite in Catalan and other Romance languages) or definite specific objects that refer to particular individual entities.

Finally, psychological predicates, such as *fear, worry-about, love, despise,* are considered to belong to a class of *intensional transitive predicates* (den Dikken, Larson & Ludlow 1996). In contrast to extensional predicates (e.g., *see*), intensional predicates (e.g., *love*) admit complements that do not denote real objects, but still do not yield falsity of the whole proposition. Consider the contrast between (12a) and (12b) (Cheung & Larson 2015: 133-4, 23a, 26a): co-occurrence with a non-denoting object expression induces falsity in (12a), whereas in (12b) it needs not. This is due to

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[5] Note that SEVs must be distinguished from k(ind)-level predicates (e.g., Spanish *descubrir* 'to discover', *inventar* 'to invent'), which select a kind argument in object position that cannot be plural and, according to Borik and Espinal (2015), is not specified for Number. See (i), where *la rueda* 'the wheel' and *el i-pod* 'the i-pod' are examples of definite kinds.

(i) a. Hace unos 5000 años se descubrió *la   rueda.*
        makes some 5000 years CL discovered the   wheel
        'The Wheel was invented about 5000 years ago.'
     b. Steve Jobs   inventó   *el i-pod.* (Borik & Espinal 2015:211, (57b))
        Steve Jobs   invented   the i-pod
        'Steve Jobs invented the i-pod.'

[6] See also Laca (1990, 1999), Dobrovie-Sorin & Laca (1996, 2003), and Longobardi (2001) for discussion of the idea that bare plurals in Romance do not allow a generic reading but only an existential one.

[7] See Espinal (2017) for the discussion of the hypothesis that incorporated nouns and clitics in both Uto-Aztecan and Romance languages are morphosyntactically defective, and for arguments in support of the claim that morphosyntactic defectiveness, but not semantic prototypicality (cf. Carlson 2010), is the requirement that incorporated nouns must satisfy. Complements of SEVs cannot be incorporated because they are not morphosyntactically defective: they are either full DPs or NumPs.

the fact that *see* entails the existence of vampires in the actual world, whereas *love* presupposes the existence of vampires with whom John has a loving experience in an alternative possible world.

(12) a. John saw vampires.
    b. John loves vampires.

Furthermore, unlike other intensional transitive verbs, such as search verbs and desire verbs, SEVs do not admit complements with non-specific readings (Forbes 2013), a fact that is congruent with our hypotheses that SEVs presuppose the existence of a particular individual entity as the Target-of-Emotion, and that object of SEVs are not kind-denoting expressions.

(13) a. #Jane loves a dog, but no particular one.
    b. Jane wants a dog, but no particular one.

In order to develop this idea, we will next review the main types of generic arguments that have been postulated in the literature. This excursus should hopefully allow us to identify the interpretation of the two arguments of SEVs in Section 3.

2.2. Types of generic arguments

First, we draw the reader's attention to *kind* arguments, arguments of so-called k-level predicates. According to Carlson (1977: 442), "kinds can be here and there, whereas normal individuals are generally confined to one location at a given time". In a similar vein, Chierchia (1998: 348) claims: "Kinds are similar to individuals [...] but their spatiotemporal manifestations are typically 'discontinuous'". Thus, as shown in (14), kinds are abstract individuals, to be distinguished from concrete object individual entities. Note that (14b) can only be accepted if *that dog* refers to a subkind of dog, whereas in (14c) *that dog* refers to a particular individual entity. The clue to understand the difference is that *be widespread* is a k-level predicate, whereas *be sleeping* is a s(tage)-level predicate.

(14) a. *Dogs* are widespread.
    b. #That dog is widespread.
    c. That dog is sleeping.

In English kind arguments have been claimed to take the form of bare plurals, and the Romance correlate of a bare plural with a kind interpretation has been claimed to be a definite plural (Dayal 2004), as illustrated in (15), from Spanish.

(15)   *Los perros* se   encuentran por   todas partes.
      the   dogs   CL find   by   all   places
      'Dogs are widespread.'

In relation to the contrast between (14a) and (15) we wish to make a distinction between kind reference and generic reference, and to introduce the idea that whereas all arguments that have kind reference also have generic reference, not all arguments that have generic reference have kind reference. This idea comes from current discussion in the literature on what is the default way to refer to kind expressions in languages other than English. In Borik and Espinal (2015) it is argued that kind

reference in Spanish is expressed by means of a numberless DP in which a definite article combines with a noun, as exemplified in (16). In (16a) *el colibrí* is the external argument of a k-level predicate, whereas in (16b) it is the external argument of an i-level predicate (B&E 2015:207, (50)). In neither example *el colibrí* refers to a particular instantiation of the kind hummingbird, but rather to an abstract entity. In this sense definite kinds are argued to be the only expression of D-genericity (Krifka et al. 1995) in Spanish, which is distinct from the interpretation of other generic nominal expressions, such as definite plurals, illustrated in (17) (B&E 2015:207, (49)).

(16) a. *El   colibrí*   es común   en Costa Rica.
        the   hummingbird is common   in Costa Rica
        'Hummingbirds are common in Costa Rica.'
     b. *El   colibrí*   vuela   hacia   atrás.
        the   hummingbird flies   towards backwards
        'Hummingbirds fly backwards.'
(17) a. *Los   colibrís*   son   comunes   en Costa Rica.
        the   hummingbirds   are   common   in Costa Rica
        'Hummingbirds are common in Costa Rica.'
     b. *Los   colibrís*   vuelan hacia   atrás.
        the   hummingbirds   fly   towards   backwards
        'Hummingbirds fly backwards.'

Definite plurals, in contrast to definite kinds, are argued (Borik & Espinal 2015) to refer to maximal sums of instantiations of the kind hummingbird, and to receive a generic interpretation only under the effects of a coercion shift imposed by an appropriate predicate (i.e., k-level or i-level).

One argument in support of the distinction between kind reference and generic reference, and against Dayal's (2004, 2011) idea that the Spanish definite plural article is the overt lexicalization of the nom/$\cap$ operator (postulated for the assignment of kind reference to English bare plurals; Carlson 1977, Partee 1987, Chierchia 1998), comes from the following reasoning (Borik & Espinal 2015): if an indefinite interpretation can be given to bare plurals in English by means of a Derived Kind Predication rule,[8] an indefinite interpretation should presumably be inferred too for definite bare plurals in Spanish. However, this prediction is not borne out, since the definite DPs in (17a,b) can never obtain an existential interpretation. They refer to the maximal sum of individuals under the extension of the k-level or i-level predicates they combine with. Hence, from now on we will assume that whereas the definite DPs in (16) have kind reference, composed by applying an *iota operator* (the meaning encoded by the definite article) to the meaning of nouns, the definite plural DPs in (17) is the expression of V-driven genericity, that is, genericity induced by the predicate the nominal expression combines with.

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[8] Derived Kind Predication (see (i)) is a type shifting rule which turns a kind denoting argument into an existentially bound indefinite, thus predicting that (ii a) has the reading in (ii b). See Chierchia (1998:364) for details.
(i)   If P applies to objects and k denotes a kind, then P(k) = $\exists x[^{\cup}k(x) \wedge P(x)]$
(ii)   a. *Lions* are ruining my garden.
       b. ruining my garden ($^{\cap}$lions)
          $\Leftrightarrow$ (via DKP) $\exists x[^{\cup\cap}lions(x) \wedge$ ruining my garden$(x)]$

From this discussion it is important to bear in mind that Romance definite plurals refer to maximal sums of individual entities, and this is exactly the interpretation that must be attributed to the definite plural *els gossos* 'the dogs' in internal argument position of the SEV *odiar* 'hate' in (2a).

In the next section we focus more specifically on the interpretation associated with the two arguments of SEVs. We first show that both the subject and the object must be specific or generic, but whereas the subject can apparently be a definite kind, the object −if generic− must necessarily be a generic definite plural expression. Second, we show some relevant cross-linguistic data and contrasts between languages with articles on the one hand (English, Catalan, Spanish and Portuguese), and languages without articles on the other (Russian).

3. The interpretation of arguments of SEVs

Psychological verbs that belong to the class we are dealing with in this paper are transitive, thus, they introduce a relationship between two arguments. The external argument is the Experiencer, which has to be animate, and the internal argument corresponds to the Target / Subject-Matter-of-Emotion (Pesetsky 1995), which can be either animate or inanimate. The two arguments are related by means of a mental state, expressed by the psychological predicate (Fábregas and Marín 2015). In this section we are going to focus on the possible interpretations associated with the two arguments of SEVs and compare them to arguments of non-SEVs in English, Russian and some Romance languages. We will show that both arguments must be specific or generic, and cannot be existential or non-specific.

3.1. The interpretation of the external argument

Subjects of SEVs must either refer to a specific individual entity or to a generic entity. The Experiencer cannot be a property, as a property corresponds to the descriptive content of a noun, the property of being an *x*, but not an *x* itself. The Experiencer has to be an *x* that undergoes a situation or sensation. Thus, being an *x*, and not the property of *x*, is obligatory for the subject of SEVs.

There are certain entailments related to the Experiencer: it must be animate; it must be sentient and conscious of the mental state (Dowty 1989, F&M 2015: 258). Considering the nature of the relationship between the two arguments of SEVs, it would appear logical to suggest that the Experiencer can only be an individual, capable of having different psychological states. However, let us have a look at the data in (18), (19) and (20).

(18) English
    a. *The elephant* hates mice.   *generic / specific*
    b. *Elephants* hate mice.   *generic / #existential*
(19)   Catalan
    a. *L'elefant*   odia   els ratolins.   *generic / specific*
       the.elephant hates   the mice
    b. *Els elefants*   odien   els ratolins.   *generic / specific / #existential*
       the elephants   hate   the mice
(20) Russian
    a. *Slon*   nenavidit myšej.   *generic / specific*
       elephant hates   mice
    b. *Slony*   nenavidjat myšej.   *generic / specific / #existential*
       elephants   hate   mice

It is interesting to observe that the denotations of the subject-Experiencer are common for all the languages under study. As the data from English, Catalan and Russian show, the subject-Experiencer may refer to a specific individual entity (18a, 19a, 20a), a maximal sum of individuals (19b), a bare plural kind (18b, 20b)), and it may also refer to a definite kind (18a, 19a, 20a).[9] This is somehow unexpected, because being an Experiencer should be incompatible with having kind reference. First, because definite kinds are conceived as abstract entities with no internal structure; they are modelled as integral entities that do not form part of the domain of individuals (Borik & Espinal 2015). Second, because bare plural kinds are conceived also as abstract individual entities, i.e., as regularities that occur in nature (functions from worlds or situations into pluralities), although represented by a lattice structure (Link 1983).

Here we have a first puzzle: why should nominal expressions with a kind reading be allowed as subject-Experiencers of SEVs? The answer to this question is that the illusion of kind experiencers only appears in sentences that express I-genericity (i.e., sentential genericity; Krifka et al. 1995), sentences construed as characterizing ones, describing an "essential" property of the subject, and not involving any psychological relation between the external and the internal arguments. In this sense, (18a,b) express generic statements similar to (21a,b), which also describe non-accidental properties of the kind *the elephant* or *elephants.*

(21) a. *The elephant* is one of the biggest mammals. Surprisingly, it hates mice.
  b. *Elephants* are some of the biggest mammals. Surprisingly, they hate mice.

Note that this type of sentences are generalizations about entities or situations, and are characterized by temporal unboundedness. At the very moment temporal anchoring is introduced, by means of the past tense of the predicate, the subject-Experiencer refers to a specific individual, or to a particular set of individual entities, not to a kind.

(22) a. *The elephant* hated mice.   *specific / # generic*
  b. *The elephants* hated mice.   *specific / # generic*

Let us next consider the interpretation of the internal arguments.

3.2. The interpretation of the internal argument

Objects of SEVs must either refer to a specific object individual, as already illustrated in (4), (5) and (6), or to a generic entity. However, the reference to a generic entity can only be expressed by means of a plural (a bare plural in English (1a) and Russian (3a), and a definite plural in Catalan (2a)), but not by means of a so-called definite kind (that is, a numberless definite DP). Consider the additional examples in (23), (24) and (25).

(23) English
  a. I hate *the golden retriever*.   *definite specific / #generic*
  b. I hate *golden retrievers*.   *generic*

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[9] The morphosyntactic realization these subjects have is different from one language to the other, as overtly exemplified by the data.

(24) Catalan
    a. Odio   *el   golden retriever.*   *definite specific / #generic*
       hate.1sg   the   golden retriever
    b. Odio   *els   golden retri*evers.   *generic*
       hate.1sg   the   golden retrievers.
(25) Russian
    a. Ya nenavižu *zolotogo   retrivera.*   *definite specific / #generic*
       I   hate   golden   retriever
    b. Ya nenavižu *zolotyx retriverov.*   *generic*
       I   hate   golden retrievers

Note that the nominal expression in object position (overtly definite in English and Catalan) can only be interpreted as referring to a specific individual. That is, the object-Target-of-Emotion cannot have abstract reference. In other words, the object of SEVs at which the emotion is targeted has to be an individual entity, familiar to the other participant of the psychological relationship (i.e. to the Experiencer). This accounts for the fact, already pointed out in (4) to (6), that definite kinds are excluded from this position, as they do not refer to particular individual entities, but denote abstract sortal concepts. By contrast, generic plurals –bare in English and Russian, and definite in Romance languages– are accepted in object position of SEVs (23b, 24b, 25b). We claim this to indicate that generic plurals do not denote kinds, but rather maximal sums of individuals, representatives of the kind.

This notwithstanding, what has been generally assumed in the literature on English is that bare plural objects of SEVs denote names of kinds.

Recall that bare plural nominals in English may be interpreted either generically or existentially (Carlson 1977, Chierchia 1998, i.a.). Consider (26). In object position *cherries* has a generic reading only in combination with the SEV *hate*, while in combination with an s-level predicate such as *eat* the bare plural has an existential interpretation. Note that this contrast is not expressed in overt morphosyntax in English.

(26) English
    a. I hate *cherries*.   *generic*
    b. I eat *cherries*.   *existential*

Carlson (1977: 113) explained the lack of existential reading of objects of SEVs by the ability of such verbs to create an intensional context for their objects. However, this does not explain the specific reading that nominals may have in this position.

Cohen and Erteschik-Shir (2002) give a different explanation for the lack of an existential reading of the objects of SEVs. They use the notion of presupposition, relying on the intuition on that *hating x* presupposes *knowing x* (Cohen & Erteschik-Shir 2002: 156 (99 a, b)).

(27) a. John hates *lawyers*.   *generic*
     b. John knows *lawyers*.   *existential*

According to Cohen and Erteschik-Shir (2002), the object of *hate* is topic-like in the sense that it is presupposed, and it is familiar, at least conceptually. This

presupposition blocks the type shifting required for the assignment of an existential reading to *lawyers* in (27a). Thus, verbs like *hate* and *like* cannot have existential objects, and cannot be submitted to a process of semantic incorporation either (Van Geenhoven 1996)

In Romance languages (Catalan and Spanish) the difference just described is manifested through the presence or absence of the definite article on the nominal in object position. Consider (28).

(28) Spanish
    a. Detesto   *las   cerezas*.   *generic / specific*
       hate.1sg   the   cherries
       'I hate cherries.'
    b. Como   *cerezas*.   *existential*
       eat.1sg   cherries.
       'I eat cherries.'

This contrast, described already in Laca (1990: 27, (6b, 6d)), makes explicit that definite plurals in Romance get the generic (inclusive) interpretation, while bare plurals get the existential (non-inclusive) one.[10] Such an analysis is in line with the hypothesis that postulates that the interpretation of definite plurals in Romance corresponds to a maximal sum of individuals (Borik & Espinal 2015), while bare plurals are construed as referring merely to a plurality of individual entities. The example in (29) further shows that the definite plural in object position of *detestar* 'hate' is linked by a contextually salient function to the maximal sum of individual cherries available to the speaker in that particular context.

(29) Spanish
    Detesto *las cerezas*   que se   venden aquí.   *specific*
    hate.1sg the cherries   that REFL sell.3pl here
    'I hate the cherries that are sold here.'

In French bare plurals are generally excluded from argument positions, so the contrast between the two readings just exposed is manifested with the help of different types of determiners: the definite article for the generic / specific interpretation of the plural nominal, and the partitive determiner for the existential (non-inclusive) reading.

(30) French
    a. Je déteste *les   cerises*.   *generic / specific*
       I   hate   the   cherries.

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[10] In this article we focus on count nouns. However, it should be noted that mass nouns behave similarly. Thus, as illustrated in (i), the definite article is required in object position of a psychological predicate such as *odiar* 'hate', but is not in object position of an s-level predicate such as *menjar* 'eat'.
(i) Catalan
    a. Odio   *la   pizza*.
       hate.1sg the   pizza
       'I hate pizza.'
    b. Menjo *pizza.*
       eat.1sg pizza
       'I eat pizza.'

    b. Je mange *des   cerises*.   *existential*
      I   eat   PART cherries

Among Romance languages, European Portuguese deserves special attention. In this language SEVs admit bare plurals in object position (31a), but only with a generic interpretation, while overt definite plurals (31b) are only interpreted as referring to specific individuals.[11] (31c) illustrates the existential reading of the bare plural object, similar to what we have already seen in English (26b), Spanish (28b) and French (30b).

(31) European Portuguese
    a. Odeio   *cerejas*.   *generic*
      hate.1sg   cherries
    b. Odeio   *as cerejas* (no   prato). *specific*
      hate.1sg   the cherries on.the plate.
    c. Como   *cerejas*.   *existential*
      eat.1sg   cherries.

In this respect European Portuguese appears to be closer to English than to other languages, because bare plurals are interpreted generically in object position of SEVs (31a), or existentially in object position of s-level predicates (31c). Besides this superficial similarity, bare plurals in internal argument position are different syntactically: *cerejas* in (31a) is postulated a DP structure with a null determiner that has the semantic properties of an overt definite determiner (Raposo 1998). *Cerejas* in (31c) can be either postulated a DP structure with a null determiner that has the semantic properties of an indefinite determiner and is semantically interpreted by means of an operation of existential closure, or a NumP structure (Dobrovie-Sorin et al. 2006). By contrast, the English bare plural *cherries* in both (26a,b) is assumed to be determinerless (Chierchia 1998, i.a.).

Finally, in Russian, a language without articles, bare nominals may appear in all argument positions and allow all types of readings (generic, specific, non-specific existential), generally distinguishable only with the help of the discourse context. In object position of SEVs bare nominals can only be interpreted generically or specifically, depending on the context. This is illustrated in (32).

(32) Russian
    a. Maša   ljubit *košek*.   *generic*
      Masha loves cats.ACC
      'Masha loves cats.'
    b. (Context: At home we have two cats, Murka and Dymka.)
      Maša   ljubit *košek*,   ona provodit s   nimi mnogo   vremeni. *specific*
      Masha loves cats.ACC, she spends with them much   time
      'Masha loves the cats, she spends lots of time with them.'

In contrast to (32a), which can only assign a generic reading to *košek* 'cats', in (32b) the object of the SEV is co-referent with the proper names in the previous sentence (*Murka i Dymka*). Hence, in this case the discourse context makes salient the interpretation of the bare plural object *košek* 'the cats', giving it a definite specific reading (von Heusinger 1996).

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[11] We would like to thank P. Barbosa (p.c.) for drawing our attention to this phenomenon.

As for non-SEVs, the bare plural in internal argument position is interpreted as referring either to a specific or to a non-specific individual, depending on the context. However, a generic reading is unavailable, as illustrated in (33).

(33) Maša   vidit *košek.*   *specific / existential / #generic*
      Masha sees   cats.ACC
      'Masha sees (the) cats.'

In contrast to SEVs (as exemplified by *ljubit* 'love' in (32)), in Russian a subgroup of psychological predicates also exists that admit only bare plurals and only with a generic interpretation.[12] These predicates can either be non-verbal (such as *byt' ljubitelem* + GEN.PL 'be a lover of', *byt' oxotnikom do* + GEN.PL 'be a lover of' lit. 'be a hunter for', *byt' znatokom* + GEN.PL 'be a connoisseur of'), or verbal (such as *uvlekat'sja* + INSTR.PL 'be fond of', *razbirat'sja v* + PREP.PL 'have a good understanding of', etc.), and they require a complement in a non-accusative case.

(34) a. On   byl   ljubitelem sobak   / #sobaki   /   #Reksa
         he   was   lover   dogs.GEN / dog.GEN /   Rex.GEN
         'He was a lover of dogs.'
     b. On   razbiraetsja   v sobakah   / #v sobake   / #v Rekse
         he   has.a.good.understanding in dogs.PREP /in dog.PREP / in Rex.PREP
         'He has a good understanding of dogs.'

Summing up this section, we have shown that subject-Experiencers of SEVs behave similarly in different languages. In all the languages here studied, the external argument of SEVs can either refer to a specific individual entity or to a generic plural. The illusion of kind Experiencers only appears with sentences that express I-genericity. On the other hand, we have shown that the internal argument of SEVs can either refer to a specific individual entity or to a generic plural, but not a definite kind. Unlike other predicates, SEVs trigger the maximal (inclusive) reading of plural nominals, while the existential interpretation is excluded. Romance languages exhibit the difference between plural nominals with a generic reading and plural nominals with an existential reading morphosyntactically: generic nominals are preceded by a definite article (which appears to be null in European Portuguese), while existential ones are either bare or preceded by a partitive article (as in French). In English and Russian this contrast is not expressed overtly.

In the next section we focus on the interpretation of the internal argument when the object is not a sortal noun.

4. More on the meaning of the Target-of-Emotion

First, it is important to note that non-finite verbal forms can also be found in object position of SEVs. English verbs *love, like, hate* may be followed by either a gerund or an infinitive, with no or little difference in meaning, as illustrated in (35).[13]

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[12] We leave for further research the study of these bare plurals that cannot be assigned a specific reading.

[13] In some other cases the difference in meaning is more obvious. Thus, the use of an infinitive seems to involve some kind of preference or deliberate choice, which is absent in the use of the gerund. See the contrast between (i) ad (ii).

(i)   I like *paying by card.* (Meaning: I enjoy (the process of) paying by card)
(ii)   I like *to pay by card.* (Meaning: I prefer to pay by card)

(35) English
    a. Anna hates *reading*.
    b. I like *travelling* in winter.   b'. I like *to travel* in winter.

The puzzle introduced by these data, and parallel examples in Catalan (36) and Russian (37), can be formulated as follows: why is it possible at all that the Target-of-Emotion of a psychological stative verb takes a non-finite verbal form?

(36) Catalan
    L'Anna   odia *llegir.*
    the.Anna   hates read
(37) Russian
    Anna nenavidit *čitat'.*
    Anna hates   read

Second, note that in some cases non-finite verbal forms may be replaced by derived nominal expressions or by nominalized infinitive forms. Consider the Catalan and Russian examples in (38) and (39).

(38) Catalan
    L'Anna   odia *la lectura* / *el fet de llegir*
    the.Anna   hates the reading / the fact of read
    'Anna hates reading.'
(39) Russian
    Anna   nenavidit *čtenije.*
    Anna   hates   reading.ACC
    'Anna hates reading.'

We approach this new puzzle by considering, following Chierchia (1984), that the expressions in object position in (35) – (39) are nominalised properties, i.e. predicative expressions that have the same reference as singular abstract nominals. Such expressions are not properties but entity correlates of properties. This term initially postulated to model kinds (Cocciarella 1976, Chierchia 1984) has been argued to include kind terms only as a proper subclass (McNally 2009). An entity correlate of a property is conceived as a non-particular, which can be instantiated by several means. One of the tests that illustrates this instantiation is the ability of gerunds to act as antecedents of pronouns (Chierchia 1984: 421 (20)).

(40) John loves *chasing rabbits*, even if *it*'s illegal.

The conclusion reached is that the internal argument in all these examples we are considering here should not be analysed as a property-qua-function but as an entity correlate. Properties and property-concepts (Francez & Koontz-Garboden 2017) can only appear in argument position if a D head shifts that property into an argument <e>. This is finally illustrated in (41).

(41) Catalan
    a. L'Anna   odia *la mediocritat / el fet de ser mediocre.*
       the.Anna hates the mediocrity   the fact of be   mediocre
    b. *L'Anna   odia *mediocre.*
       the.Anna hates mediocre

The nominalized objects in (41a) are grammatical because they denote entity correlates of the property *mediocre,* but (41b) is ungrammatical because the adjective denotes a property-qua-function. The asymmetry illustrated in (41) makes explicit that the role of the definite article is to produce expressions that can serve as arguments of predicates.[14]

In this section, we have shown that in spite of the fact that psychological verbs express a relationship between two individual entities (the Experiencer and the Target-of-Emotion), non-finite verbal forms can appear in object position of SEVs because they do not refer to a property, but to an entity correlate of a property.

5. Conclusion

We started this paper by observing that SEVs only allow object arguments that refer to particular atomic individuals with a specific reading, or to sums of individuals with either a generic or a specific reading. Objects of SEVs neither allow a non-specific existential reading nor a generic kind interpretation. We have argued that the illusion of kind experiencers appears exclusively in sentences that convey I-genericity. In general, SEVs presuppose the existence of two particular individual entities involved in the psychological relationship, which excludes abstract kind entities. We have shown that generic plurals (bare in English and Russian, definite in Catalan and Spanish) are allowed in object position of SEVs because they do not denote kinds, but rather maximal sums of individuals, representatives of the kind. Finally, we have shown that non-finite verbal forms can also be found in object position of SEVs because they are to be analysed not as property-qua-functions but as entity correlates of properties.

Overall, we conclude that the two arguments of transitive subject experiencer psychological verbs that denote mental states refer to non-abstract entities: specific individuals, generic plurals, and even entity correlates of properties.

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[14] See Ramchand and Svenonius (2008) for a similar claim as applied to Russian.

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