No lack of determination

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1. Introduction

What are traditionally called Noun Phrases seem to come in two varieties--those that begin with a determiner (or a quantifier-like expression), and those that don't. So, at first g lance, while phrases like *those desks* and *most new cars* show both a determiner-type eleme nt and a nominal, phrases like *Fred*, *her*, *linguistics papers*, and *wheat*, do not. The questio n of whether to analyze these latter types of noun phrases as being similar in structure to the former--and if so, how--has often boiled down the the question of the exact identity of the missing determiner element. It has been suggested, for instance, that proper names have a c overt definite article associated with them, so that *Fred* should be analyzed syntactially and s emantically along the lines of (1) a. Curious people crowded around the site of the accident. (i.e. Some curious people)

b.

Curious people like to travel a lot. (All, or nearly all, curious people; curious people in general)

They also typically have just one of these interpretations available in any given sentence (on a constant interpretation of the sentence less the BP). So, for instance, (1a) has no universal or general reading, nor does (1b) have an existential reading. This observation is by no me ans hard and fast, however. In a sentence like (2), from Longobardi (1994), both readings a ppear accessible:

(2) I only excluded old ladies (=Longobardi's (41a)).

Such a sentence can be understood as excluding only some older women (and admitting oth ers), or as excluding all who are older.

Facts such as these have spurred a great deal of work, and controversy. It is possible to separate out two closely-related issues concerning the syntax and semantics of BP's:

- (A) What do BP noun phrases mean? Do they have a single, unified meaning which appears to be different in different contexts, or are there two or more meanings?
- (B) How do the syntactic and semantic (and pragmatic) contexts determine which interpretation(s) of the BP is/are appropriate?

While these two questions are intertwined, we are going to focus on the former question.

2. An early unified analysis

Traditional grammars of English assume that BP's have covert determiners associat ed with them. One of these is the plural form of the indefinite singular a(n) and accounts fo r the existential interpretation; the other is a universal sort of determiner or quantifier, having something like the force of *all* or *any*. This analysis presents two quite different problems. First, it would appear to predict systematic ambiguity of BP's, when one finds more genera lly lack of it. Second, it is no trivial matter to specify the exact identity of the "universal" n ull determiner, as it is clearly not universal, nor quite like any of the other non-null determin ers/quantifiers. These problems were discussed in Carlson (1977, 1980), the work inspired by that of Milsark (1974). The reason, I argued there, that bare plurals are not generally am biguous in a given sentence, is that they are not ambiguous in and of themselves. Rather, it i s the syntactic/semantic context in which they appear that makes them appear to have differe nt interpretations, not any difference in the determiner or any other element in the noun phra (4) Cats think very highly of themselves

A sentence like (4) has two readings, one where each individual cat thinks it is wonderful, an d another reading in which cats hold no attitude towards themselves directly, but think highl y that species in general. Similarly, there is one reading for examples such as (5):

(5) John polished apples, and Mary ate them.

which allows John to polish some apples and Mary to eat some other apples (that he never p olished); on the other reading the apples are, of course, identical. In Carlson (1980) this dif ference was attributed to whether the pronoun was interpreted coreferentially or as an E-type pronoun.

Further, NP's of the form "that kind of x" also, it is claimed, exhibit "generic" and "e xistential" readings as well:

- (6) a. That kind of animal eats wood. ("generic")
 - b. I saw that type of animal at the pet store yesterday ("existential")

Additional arguments can be found in Carlson (1977, 1980) and elsewhere. This was, I beli eve, the first attempt to deal with the phenomena systematically within a formal semantics fra mework (though see especially Lawler 1973), and it didn't take long for researchers to work on improvements.

3. Critiques and criticisms

The unified "kinds" view was certainly not beyond criticism. DeMey (1980, 1982) was among the first to question the necessity of "stages" for an analysis. More detailed pre sentations of alternative views are found in ter Meulen (1979), on mass terms, and more spe cifically in Wilkinson (1991), on bare plurals, who offers perhaps the most comprehensive c ritique to date. Kratzer (1980) presents a very interesting criticism of the "kinds" analysis t hat has had some reply (Carlson 1996; É. Kiss1998). Lasersohn (1997) likewise critiques some of the semantic claims associated with a "kinds" analysis from examining the detaile d semantics of donkey sentences. Schubert & Pelletier (1987) have a detailed critical discus sion of the framework. Condoravdi (1994) and É.Kiss (1998) argue that a notion of specifi city (though characterized differently in each case) distinguishes apparently universal from i

ndefinite appearances of bare plurals; Condoravdi (1994), like Wilkinson, presents criticis ms fairly comprehensively. Even on a unitary "kinds" analysis, there remain several alterna tive points of view (e.g., see Ojeda,1993), and while a unified analysis would seem a priori d esirable it is by no means taken for granted.

As the semantic theory of indefinites developed during the 1980's (Lewis 1975; Ka mp 1981; Heim 1982), another analysis of BP's appeared that made quite different assumpt ions about their character. The most detailed proposals are to be found in Krifka and Gerst ner-Link (1986), Wilkinson (1991), Kratzer (1995, initially written in 1989) and Deising (1 992). On this type of analysis, BP's are always indefinite noun phrases (and not like names) whose contribution to the meaning of the whole is a predicate condition with a free variable in it. Thus, roughly, a BP like *stars* in any context would be interpreted as *star(x)*, much li ke the indefinite singular noun phrase *a star* would if one set aside the plurality--or the definite *the star(s)*, for that matter. In this theory, the quantificational force associated with a B P in a given sentence is, as before, provided by syntactic/semantic elements outside the noun phrase itself. The mechanisms providing for this differ from the earlier analysis, some attri butable directly to the DRT framework itself.

One very fertile version is Diesing (1992) and related work. In this theory, there is a simple algorithm for determining how the free variable introduced by the noun phrase gets bound: if (at LF) an NP is found within the VP of the sentence, it gets bound by an existent ial quantifier ("existential closure") and mapped to a nuclear scope; and if it appears in the IP of the sentence, it gets bound by something else and appears in a restrictor. That "somet hing else," in the case of quantified noun phrases that have undergone QR, would be the qua ntifier expression (e.g., the universal *all* in the noun phrase *all men*), but there are other poss ible binders as well. For instance, adverbs of quantification, as found in (7) below, can bind the free variable in the (interpretation of the) subject noun phrase *linguists*

The stage-level/individual-level contrast in this framework gets indirectly reflected in whethe r the subject and other arguments of the predicate require the argument to appear outside the VP at the level of LF, or within it. This analysis has both been supported (e.g., Longobardi 2000) and questioned (e.g., de Hoop 1996; Bobaljik and Jonas 1996) on empirical grounds.

There is something of an obvious smallish cost associated with accommodating BP' s to indefinites within a DRT-type framework: you give up a unified analysis. In these treat ments a distinction is fairly systematically drawn between BP's that can be treated as indefinites (as predicates) in the DRT framework, from those that are subjects of kind-level predic ates (e.g., in (3)), in which case the BP's are kind-denoting and cannot convincingly be treat ed as predicates of individuals (or groups of individuals). Wilkinson (1991) in particular wi shes to argue that this is an acceptable outcome. Further, one does not give up on the idea t hat many instances of BP's in generic sentences with universal-like readings are syntacticall y and semantically identical to BP's interpreted existentially. In the extensive summary pape r of Krifka *et al* (1995), the point of view espoused by Krifka & Gerstner-Link, Kratzer, Wi lkinson, Diesing, and others was presented and treated as the "center-of-opinion" and prev ailing view (even if there may have been some very minor split of opinion among the numer ous co-authors).

However, looking at things in this way also has some distinct advantages. For insta nce, in the Carlson (1977) analysis, the fact that indefinite singulars in English and other lan guages may also have generic readings along with their usual existential readings, as in (9), t akes a bit of extra work. But within the DRT framework coupled with some of the principle s mentioned above (along with a few others), this appears to fall out naturally and, in fact, w ould be a bit hard to prevent given assumptions.

(9) a. A curious person knocked on the door. (existential)
b. A curious person likes to travel. (all curious people, curious people in general)

So this approach certainly has its advantages, though other alternatives are clearly possible (e.g., Cohen 2000). However, the DRT approach exemplified in Diesing and elsewhere does not, to this point, take account of certain features of bare plurals that other analyses have foc used attention on.

4. Some additional facts about English BP's

For example, the similarities noted earlier about the relationship between bare plurals and proper names—the other side of the coin—haven't been dealt with. And long-noted sc oping facts about existential readings of bare plurals have also tended to get set aside. It has been observed, and generally agreed, that bare plurals exhibit only narrowest-scope reading s, in contrast to overt indefinites, which exhibit variable scope. For instance, a sentence like (10 a) does not mean there are specific shoes that are being sought; nor does (10 b) have a meaning equivalent to "There are some cows that are not in the garden", thereby allowing s ome (other) cows to be there:

- (10) a. Mary is looking for shoes.
 - b. Cows are not in the garden.

These and other unexpected properties of BP's on their existential readings are missed on a ny analysis such as this which equates BP empty determiners with the indefinite plural. On e particular issue that has received only minor attention in the literature (see for instance Lo ngobardi 1994) is whether BP's are real contrasting plurals in the sense of excluding singul ar objects from their denotations. It appears to make some sense, at least, to claim that a que stion like "Are there holes in the wall?" is truly answerable with "Yes" under the circumst ance where just one hole is in the wall and no more. If this is so, it argues that BP's are not indefinite plurals that stand in contrast to the indefinite singular, but rather forms whose inte rpretation encompasses both.

There are several other aspects of the interpretation of BP's that remain more near th e periphery of research, but which have arisen in the course of this research, and which have motivated more detailed examination of BP's. For instance, Condoravdi (1994) has success fully focused attention on examples where bare plurals appear interpreted existentially, yet a ppears as subjects of individual-level predicates.

(11) (There was a ghost haunting campus) *Students* were aware of this danger.

As Condoravdi points out, this is not a simple existential statement, as (11) above does not mean the same as (12):

(12) (There was a ghost haunting campus). There were students who were aware of this danger.

But this is interpreted much more like a sentence with a definite article:

(13) ... The students were aware of this danger.

Such "functional" readings, as Condoravdi calls them, can be teased apart from truly generi c readings; she ultimately argues that there is an extensional generic reading--the functional reading-- that stands alongside the generic and existential readings.

É..Kiss (1998) also points out some facts about bare plurals when focused, in that th ey can take on purely existential readings, unlike their unfocused counterparts. So, for insta nce, in (14):

(14) GIRLS know mathematics the best in my school.

it can mean that those students who know it best, are among the girls in the school; it may a lso be read generically as about "all" girls, as well. É.Kiss argues that this possibility of inte rpretation results from the fact that something must be interpreted specifcially in order to be topicalized (or, contrastively focused).

A further fact about bare plurals, noted in Longobardi (1994, 2000) though also reco gnized (but not accounted for) in Carlson (1980), is that when a relative clause or other post verbal modifier (in English) is appended, an existential interpretation may arise where none was possible before. So, for instance, with: If we change the type of relative clause in the examples above, the existential reading seems t o disappear:

- (18) a. Neighbors that eat lots of vegetables are tall.
 - b. Neighbors from Scotland are tall.

This stands in contrast to what occurs with the indefinite singular, where the existential reading appears to remain a possibility:

- (19) a. A neighbor that eats a lot of vegetables is tall.
 - b. A neighbor from Scotland is tall.

The types of postnominal modifiers that allow for existential readings are, intuitively, those t hat locate the corresponding individuals in time and/or space. Under most circumstances, a BP will, as noted above, exhibit most clearly only a narrow scope reading. However, with an appropriate postnominal modifier, not only is an existential reading possible, but the NP als o can exhibit scopal properties just like an indefinite singular. Compare, for instance:

(20) a. John is looking for old books (narrow scope only)
b. John is looking for old books that he forgot to return to the library (narrow or wide scope)

In the second sentence, but not in the first, the object of John's search can be a specific set o f books; both sentences have a clear narrow-scope reading. Again, these facts are different from what we observe with indefinite singulars in corresponding cases. These facts are disc ussed in more depth by Chierchia (1998b). One further lingering fact, noted by Barbara Pa rtee (1985), is that when bare plurals (though not mass terms, in this instance) function as " dependent plurals", they show scoping effects as well.

Exactly what the facts are, and how all these relate to each other, remains not very wi dely examined at the moment, but there is getting to be a rich enough set of data and sufficie nt theoretical development to support growing work in this somewhat obscure area.

5. BP's in Romance (and Germanic)

Somewhat ironically, some of the most interesting work on BP's comes from consid eration of languages which don't have lots of them. The most highly developed body of liter ature is on Romance, especially Spanish and Italian, which have fewer BP's than English, an d French (which has virtually none). To foreshadow some, the problem raised by the "kind s" analysis as well as by the more commonly assumed indefinites analysis is that one woul d expect any language with BP's to exhibit them fairly freely, as in Germanic, and for BP's to have both generic and existential readings. However, consideration of other languages sh ows this is not always the case. What has resulted thus far from this line of research has bee n a return to a more sophisticated "kinds" analysis, which nonetheless makes critical use of the insights of the theory of indefiniteness. One such analysis is found in de Swart (1993), who bases her analysis on facts from English and French, and others I discuss below. (He re, as above, I can really only point to but cannot do full justice to the scope of the individual works, which contain a great deal more than the few facts presented here.)

It has been known for some time that in Spanish, the distribution and interpretation of BP's is limited. Contreras (1986) notes such facts as these:

- (21) a. *Quiero cafe* want-1sg coffee ' I want coffee'
 - b. El cafe me gusta
 Def. coffee me pleases
 'I like coffee'
 - c. **Me gusta cafe* Me pleases coffee (subj)
 - d. **Cafe me gusta* Coffee me pleases
 - e. *Hablamos con amigos* Speak-1pl with friends 'We spoke with some friends'

BP's may not occur as subjects of non-ergative verbs, whether post- or pre-verbal, and in ge neral cannot be interpreted generically, only existentially; further, when contrastively stresse d, BP's may appear. The type of account offered by Contreras centers on the notion of pro per government as applied to an NP with an empty determiner position; Torrego (1989) give

s an account very similar in spirit. That is, BP's are claimed to have a determiner position rep resented in the syntax that, like other empty categories, requires proper government, and the N within the NP (or DP) itself cannot govern that position. The account of the data above, a nd much more, centers around defining government and the syntactic structures of Spanish i n such a way as to account for patterns such as those found in (21). Governing items inclu de verbs and prepositions, but subjects (as in (21 c,d)) have no governor, and the empty dete rminer position remains unlicensed, resulting in ungrammaticality. Note that it is necessary, on this account, to have an actual empty D position in the DP; the data from English on an y of the accounts reviewed above do not motivate such an analysis as the appearance of BP's in English is basically unrestricted.

On the semantic side, Laca (1990) presents a number of keen observations about ho w one expresses generic objects in such a language, which has restricted occurrences of BP' s. Spanish generally uses the definite article to express what we are calling the generic reading (though Laca argues the informational notion of "inclusive" presents a better understanding), and the bare plural form is generally reserved for existential (= "non-inclusive") reading s. Consider, for instance, the ambiguity inherent in the English:

(22) The Gwamba-Mamba worship bears.

The preferred reading for this is that the species represents the object of worship; however, there is also a reading where there are some specific bears they keep caged up, which they w orship to the exclusion of other bears. This is the reading most favored for:

(23) The Gwamba-Mamba worship idols.

That is, the object of worship is some specific group of idols, not idols in general (though th is is still a possible reading). The following Spanish sentences express these preferred read ings:

- (24) Los G-M adoran a los ososDef G-M worship (to) Def bears'The G-M worship bears (in general)'
- (25) Los G-M adoras idolos
 Def G-M worship idols
 'The GM worship (some) idols'

But this distinction between definites and bare plurals is not limited to intensionalizing verbs such as "worship". So, for example, both are possible after an extensional verb like "chase ", with differential effects:

- (26) Mi perro persigue a los gatos
 My dog chases (to) Def cats
 'My dog chases cats' = 'What my dog does with cats is chase them'
- (27) Mi perro persigue gatos
 My dog chases cats
 'My dog chases cats' = 'My dog has a habit of cat-chasing'

In this case, the use of the definite form is correlated with focus on the verb.

e article or a singular indefinite article in some cases, as in French and Spanish. Longobardi 's main thesis is that in the case of proper names (and pronouns) there is movement within t he DP from the N position into the empty D position, resulting in a structure which does no t have an empty D that must be governed externally. This means that proper names, like (ne arly) any noun phrase with an overt determiner, will appear in any position a DP may also o ccupy.

(29) [DP [D e] [N' N]]

Evidence comes largely from facts about Italian word-order. In the case of empty D's in Ital ian, one gets about the right results by assuming that common nouns, lacking reference of th eir own, do not move into the D position like proper names can, leaving only those positions where the D is governed, giving rise to a narrow-scope existential reading. But then, what o f English (Germanic) BP's? In these languages there is little word-order evidence of the typ e to be found in Italian regarding movement of names and pronouns into D, and BP's may a ppear in any DP position at all; further, BP's can have generic interpretations. Longobardi's proposal here is that in Germanic, determinerless common nouns can move into the empty D position at the level of LF, which gives rise to a referential, generic reading for BP's; failu re to move into the D position will result in a "default" instance of existential interpretation. In this case, the presumption would need to be that the existential interpretation is available o nly for those positions which in Germanic would count as governed positions, generic readi ngs being the only available in ungoverned positions. Thus, to speculate for a moment, the I P position that Diesing has suggested for generic subjects would probably count as an ungo verned position, allowing only the generic reading; the VP-internal position Diesing assume s for stage-level subjects would be governed, and thus would allow for existential readings, a nd generic readings as well, unless otherwise restricted.

The notion of an expletive determiner is also developed in Brugger (1993), who focu ses on German as well as Italian, comparing them both with English. Brugger argues that th e definite article in German, but not in English (at least for the constructions considered), ca n be expletive. One basic fact pointed out is that while English plural definites cannot be int erpreted generically (or if so, only marginally), in German this is an entirely natural way of e xpressing genericity. Thus, (30) has a generic reading, while its English counterpart does n ot, referring instead only to some contextually determined set of elephants, which is also a p ossibility for the German. (30) ...die Elephanten wertvolle Z\u00e4hne haben the elephants precious teeth have 'Elephants have precious teeth'

German does have bare plurals, like English, but these cannot occur with true kind-level pre dicates (31), though they occur fairly freely in generic sentences (32):

(31) *...*Dinosaurier dabei sind auszusterben* (OK with *die Dinosaurier*) Dinosaurs PRT become extinct

(32)

...*Elephanten wertvolle Zähne haben* Elephants precious teeth have 'Elephants have precious teeth'

Brugger concludes that German (and Dutch) BP's cannot be kind-denoting; the definite plu

One main point of Chierchia's analysis is to account for the scopelessness of the ex istential reading of BP's, and to answer some questions raised by the prevailing view that ge nerics should be analyzed as indefinites: (a) why would languages consistently use the sam e device (BP's or, in many languages, determinerless singulars) to express both kind-referen ce and existential indefiniteness? (b) why in the indefinites view would there be an ambiguit

Less work has focused on singular count common nouns lacking determiners, as in the Romance and Germanic languages these do not appear systematically in argument positi ons (though may in vocative and predicative constructions). However, this does not mean th ey are totally lacking. English has them sporadically ("I saw it on *television*" or, as Richard Oehrle pointed out to me, "The special relation between *doctor and patient* deserves special legal protection."). In Scandinavian languages, they appear quite a bit more systematically. Borthen (1998) discusses these in Norwegian. Here we find, for instance:

(35) a. Jeg kjører bil.
I drive car
'I drive a car'
b. Petter spiser helst med skje.
Petter eats rather with spoon
'Petter would rather eat with a spoon'
c. Jeg har bestilt billett.
I have ordered ticket
'I ordered a ticket'

However, bare singulars may not appear in many other instances:

- (36) a. **Jeg odela datamaskin.* I destroyed computer
 - b. **Bil kjører bortover veien* Car drives along road-the

Borthen considers the semantics of these bare singulars where they may occur, detailing ho w, on almost anyone's analysis, they must be regarded as non-specific (i.e. the observations are similar to those made in Enç 1991 for determinerless bare singulars in Turkish); further , they exhibit the same sort of scopelessness as (most instances of) BP's. Borthen does not find a specific syntactic mechanism to account for the distribution and interpretation of bare singulars in Norwegian, in the end settling on a semantic account which limits their appeara nce to argument positions exhibiting only certain semantic roles which are enumerated and motivated in the account.

Work on bare singulars in other languages that likewise have articles and/or pluralit y has yielded a very similar pattern of syntactic and semantic observations. The work on Al

In Cantonese, however, bare nouns cannot be interpreted as definites. Definiteness is expre ssed by the use of a classifier (CL); as in Mandarin, bare nouns cannot be interpreted as de finites preverbally (though they may be interpreted generically).

(38)	a.	*Gau soeng gwo maalou
		Dog want cross road
		(Not possible for 'The dog wants to cross the road')
	b.	Zek gau zung-ji sek juk
		CL dog like eat meat
		'The dog (NOT dogs in general) likes to eat meat'
	c.	Gau zung-ji sek juk
		Dog like eat meat
		'Dogs like to eat meat'

Mandarin, Cheng and Sybesma argue, also has CL+Noun phrases as well; however, there, t he interpretation is always indefinite, and never definite as in Cantonese. The thrust of the w ork is to argue that classifiers in both Chinese languages function very much like D position s, in that any bare noun is a part of a classifier phrase, the basic structure being:

(39) [CIPCl [NP

Before closing, it is worthwhile mentioning some other recent work. Brockett (1991) contains a detailed examination of Japanese; we also find Dayal (1992) on the situation in Hindi and Portersfield & Srivastav (1988) on the contrast between Hindi and Indonesian. Chung (2000), in a reply to Chierchia, also examines Indonesian in detail. Petronio (1995) discusses ASL (which has no plurality or articles; see also the other papers in the same volu me). Greenberg (1994) comprehensively presents facts about Hebrew, and É. Kiss (1998), Hungarian. Bittner (1994) and Van Geenhoven (1998) discuss West Greenlandic incorpor ated nominals within this tradition, where one finds the most detailed semantic observations about these structures (along with the work on Hindi bare singulars--which are arguably inc orprated forms--mentioned above). It appears that incorporated nominals (chiefly, objects o f verbs) follow the general pattern of semantic interpretation characteristic of BP's and bare singulars as well--chiefly, in having nearly always weak indefinite existential and number-ne utral interpetations. The same range of interpretations also appears to hold for "pseudo-inc orprated" forms (Massam 2001). This suggests that incorporated nominals and BP's share a lot in common that deserves closer examination, as argued most pointedly by van Geenhov en (1995). In some languages, such as West Greenlandic, incorporated nominals can be mo dified or quantified from outside the word; this gives rise to a discontinuous syntactic form--a "split" construction--which likewise raises interesting questions about the semantics of de terminerless nouns even in languages which do not have incorporation (Diesing 1992; Beer man 1997; also Geurts 1996).

Perhaps the most comprehensive survey of the range of nominal forms used to expr ess genericity is to be found in Gerstner-Link (1998), who compares forty disparate langua ges and summarizes the results in a series of proposed universals. The patterns she finds ar e largely in keeping with the detailed work on a more limited set of languages (she uses Ger ery similar types of entities into the model). However, a good number of researchers have f ound that stages themselves are useful constructs in their own right, as in Stump's (1981) a nalysis of constructions such as "an occasional sailor walked by". The literature making u se of stages is more scattered than the literature reviewed above, but the issue occasionally s urfaces when temporal restrictions are examined more closely. One recent comprehensive d iscussion is to be found in Musan (1995), who builds on the work of Enç (1981). Yoon (1 998) considers the semantics of English indefinite NP's with a proper name modified by an adjective.

(40) ...*a handcuffed Jones* protested as two Columbus police officers pushed him into the Franklin County jail.

Yoon notes, first of all, that the adjectives appearing in this construction are stage-level and n ot individual-level adjectives ("a startled Kato Kaelin" vs. ??"an intelligent Kato Kealin"); further, that despite their indefiniteness, they appear to make reference to individuals alread y introduced into the discourse. However, if the NP refers to a stage of an individual, then t hat stage itself consititues a novel entity into the discourse, hence the indefinite. Dermidach e (1997a, 1997b), in some provocative work, has also employed and defended stages in the a nalysis of St'at'imcets (Lillooet Salish) noun phrases in order to account for their temporal restrictedness. Lin (1999) has proposed that stages be countenanced in order to account for the semantics of *shenme* 'what' in donkey-type conditional sentences in Chinese (also exa mined in great detail by Huang and Cheng (1996) though they focus on the semantics of 'w ho', which turns out to have some different properties). The stage/individual contrast has al so been invoked in unpublished work to form an account of the semantic distinction betwee n the Japanese anaphoric expressions *sore* vs. *kare*. Carlson (1991) discusses the use of st ages for the analysis of certain demonstratives in English--see Büring (1998) for an interesting and closely-related discussion.

8. Outcomes and Conclusions

Researchers now have on hand a large and sophisticated set of both data and analys es to draw from in considering the appropriate syntax and semantics of BP's. This presents us with an excellent base from which to work on this and related problems from a variety of perspectives, in a variety of the world's languages. On some matters, there is quite solid ge neral agreement. One is that BP's on both existential and generic readings should try to be analyzed as having something basic in common. Another is that very close attention needs t o be paid to issues of specificity and scoping for the indefinite readings. We have also seen a general trend towards taking elements of both the theory of indefinites and the kinds anal ysis, and trying to preserve something like a unitary analysis of BP's across languages: few if any of the reseachers noted, in particular, defend an analysis in which there are multiple n ull D's. The success of assuming an empty D position that must be properly governed in so me languages is also widely appealing, as is the idea that there is a connection between move ment into D and definiteness/genericity.

An area that can use closer scrutiny, aside from extending research to a broader num ber of languages, is a more careful understanding of the relation between definite singular, d efinite plural, BP, singular indefinite generics, incorporated nominals, and the relation of the se expressions to overtly expressive "kind" NP's in general, in languages which allow the In some cases, they appear to make little difference. For instance, if one attributes V P-level existential quantification to existential closure, as Diesing suggests, or to an existenti al quantifier connected with the event structure, as Delfitto suggests, the effect on BP's is ab out the same. Type-shifting (Chierchia) quite clearly locates the source of the existential qu antifier at the boundary between the NP and the predicate it is combining with, but then Carl son's existential quantification over stages can be looked upon in much the same way, thoug h the ontologies differ. Longobardi's "default" existential quantifier is very much in the sam e vein. At the current state of research, there is no strong consensus about what source of e xistential quantification is correct or incorrect (nor does there seem to be one about the preci se source of generic readings as well), so it is possible to focus on the correlated structures within the DP itself, and still make very productive contributions. As research continues an d the theoretical issues become increasingly sharpened, however, I expect people are going t o have to increasing reason to choose among them.

Bibliography

Abney, Steven 1987.

The English noun phrase in its sentential aspect. Massachusetts Institute of Technology Ph.D. disertation.

van der Auwera, Johan. 1980 *The semantics of determiners.* London: Croom Helm.

Bach, Emmon., Eloise Jelinek, Angelika Kratzer, and Barabara Partee (eds.) 1995 *Quantification in natural languages.* Dordrecht: Kluwer.

Barker, Chris & David Dowty (eds.) 1992. *Proceedings of SALT 2.* Columbus, OH: *Working papers in linguistics 40*, Ohio State University.

Basilico, David 1998

Object position and predication forms. Natural Language and Linguistic Theory 16: 541-95.

Beerman, Dorothee 1997

Syntactic discontinuity and predicate formation: A study in German and comparative Germanic sy tax

Borthen, Katja 1998.

Bare singulars in Norwegian. Cand. philol. thesis. Norwegian University of Science and Technolo y, Department of Linguistics.

Brockett, Chris 1991.

Wa-marking in Japanese and the syntax and semantics of generic sentences. Ph. D. dissertation, C rnell University.

Brugger, Gerhard 1993. Generic interpretations and expletive determiners. University of Venice working papers in linguistics 3, 1-30.

Büring, Daniel 1998. Two types of identity statements. Ms, University of Cologne.

Burton-Roberts, Noel 1976. On the generic indefinite article. Language 52, 427-448.

Carlson, Gregory 1977 A unified analysis of the English bare plural. *Linguistics and Philosophy*, 413-457.

Carlson, Gregory 1980. *Reference to kinds in English*. New York: Garland.

Carlson, Gregory 1991.

Ostension and perception: cases of really direct reference. Paper presented at SALT I, Cornell Univ

Carlson, Gregory 1996.

A note on belldonnas. Paper presented at the annual meeting of the Linguistic Society of America, S n Diego.

Carlson, Gregory 2000 Weak Indefinites. Paper presented at the NP to DP Conference at the University of Antwerp; Univ sity of Rochester ms.

Carlson, Gregory & Francis Jeffry Pelletier (eds.) 1995. *The generic book.* Chicago: University of Chicago.

Cheng, Lisa, & C-T. James Huang 1996. Two types of donkey sentences. *Natural Language Semantics 4*: 21-163.

Cheng, Lisa, and Rint Sybesma 1999. Bare and not-so-bare nouns and the structure of NP. *Linguistic Inq iry* 30: 509-42.

Chierchia, Gennaro 1988. Topics in the syntax and semantics of infinitives and gerunds. New York: Garl nd.

Chierchia, Gennaro 1995. Individual level predicates as inherently generic. In Gregory Carlson & Francis effry Pelletier (eds.) 176-223.

Chierchia, Gennaro 1998a. Partitives, reference to kinds, and semantic variation. In *Proceedings of Salt VII* Ithaca, NY: Cornell University.

Chierchia, Gennaro 1998b. Reference to kinds across languages. *Natural Language and Linguistic Theor*, 6, 339-405.

Chung, Sandra 2000 On reference to kinds in Indonesian. *Natural Language Semantics* 8: 157-71.

Cohen, Ariel 2000

On the generic use of bare indefinite singulars. To appear in Christopher Pinon and Paul Dekker (e s.) *Uses of indefinite expressions*. Stanford: Center for the Study of Language and Information.

Cohen, Ariel, and Nomi Erteschik-Shir 1997

Topic, focus, and the interpretation of bare plurals. In *Proceedings of the 11th Amsterdam Colloqui m*, Amsterdam: Institute for Language, Logic, and Information. 31-6.

Cohen, Ariel, and Nomi Erteschik-Shir 1999

Are bare plurals indefinite? In Francis Corblin, Carmen Dobrovie-Sorin, and J. Marandin (eds.). 99 109.

Condoravdi, Cleo 1992. Strong and weak novelty and familiarity. In Chris Barker & David Dowty eds. 17-37.

Condoravdi, Cleo 1994. *Descriptions in context*. Ph. D. dissertation, Yale University.

Contreras, Heles 1986.

Spanish bare NP's and the ECP. In Ivonne Bordelois, Heles Contreras, & Karen Zagona (eds.), 25-9.

Corblin, Francis, Carmen Dobrovie-Sorin, and J. Marandin (eds.) 1999 Empirical Issues in Syntax and Semantics 2. The Hague: Theus Publishing.

Dahl, Östen. 1975. On generics. In Edward L. Keenan ed., 99-111.

Dayal, Veneeta 1992. The singular-plural distinction in Hindi generics. In Chris Barker and David Dowty (eds.) 39-58.

Dayal, Veneeta 1999. Bare NP's, Reference to Kinds, and Incorporation", *Proceedings of SALT 9*. Ithaca, NY: Cornell Uni ersity.

Dekker, Paul & Martin Stokhof (eds.) 1993.

Proceedings of the ninth Amsterdam Colloquium. University of Amsterdam: ILLC/Department of Philosophy.

Diesing, Molly 1992. *Indefinites*. Cambridge, Mass.: MIT Press.

Delfitto, Denis 1997. Aspect, genericity, and bare plurals. Ms, University of Utrecht.

Delfitto, Denis and Jan Schroten 1991. Bare plurals and the number affix in DP. *Probus* 3, 155-185.

Delsing, L. O. 1993.

The internal structure of noun phrases in the Scandinavian languages. Ph.D. dissertation, University of Lund.

Demirdache, Hamide 1996.

The chief of the United States sentences in Lillooet Salish. Papers for the 31st International confernce on Salish and neighboring languages. 79-100. Demirdache, Hamide 1997.

Predication times in St'at'incets Lillooet Salish. In *The Syntax and Semantics of Predication*, Texas Linguistic Forum, University of Texas/Austin.

Dineen, F. ed. 1969. Monograph series on language and linguistics 19. Washington: Georgetown University Press.

Dobrovie-Sorin, C. 1996. Types of predicates and the representation of existential readings. Ms, University of Paris 7.

Dobrovie-Sorin, Carmen & Brenda Laca 1997.

On the definiteness of generic bare NP's. Paper delieverd at the Institute for Advanced Studies, The Hebrew University, Jerusalem.

É. Kiss, Katalin 1994. On generic versus existential bare plurals. Ms, Hungarian Academy of Sciences, Budapest.

É. Kiss, Katalin 1998.
 On generic and existential bare plurals and the classification of predicates. In Susan Rothstein ed. 1 5-162.

Enç, Mürvet 1991. The semantics of specificity. *Linguistic Inquiry* 22:1, 1-26.

- Farkas, Donka., & Yoko Sugioka 1983. Restrictive if/when clauses. *Linguistics and Philosophy* 6, 225-258.
- Fernald, Theodore 1994.

On the nonuniformity of the individual- and stage-level effects. Ph. D. dissertation, University of C lifornia at Santa Cruz.

Fernald, Theodore 2000 Generalizations in Navajo. In Theodore Fernald and Paul Platero (eds.). 51-72.

Fernald, Theodore, and Paul Platero (eds.) 2000

The Athabaskan Languages: Perspectives on a Native American language family. Oxford Studies i Anthropological Linguistics 24. Oxford: Oxford University Press.

Filip, Hana 1993.

On genericity: a case study in Czech. In J. Guenther and B. Kaiser (eds.), *Proceedings of the Nin eenth Meeting of the Berkeley Linguistic Society*. University of California at Berkeley. 125-142.

von Fintel, Kai 1994. Restrictions on quantifier domains. Ph. D. dissertation, University of Massachusetts/Amherst.

von Fintel, Kai 1997. Bare plurals, bare conditionals, and *only*. *Journal of Semantics* 14: 1-56.

Fodor, Janet D., & Ivan Sag 1982.

Referential and quantificational indefinites. *Linguistics and Philosophy* 5, 355-398.

van Geenhoven, Veerle 1995

Semantic incorporation: A uniform semantics of West Greenlandic noun incorporation and West Greenlandic bare plural configurations. In Audra Dainora et al (eds) *Papers from the 31st regional meeting of the Chicago Linguistic Society*. Chicago: Chicago Linguistic Society.

van Geenhoven, Veerle 1998.

Semantic incorportation and indefinite descriptions. Stanford: CSLI Publications.

Gelman, Susan and Twila Tardif 1997.

Generic noun phrases in English and Mandarin: An examination of child-directed speech. Paper p esented at the LSA Annual Meeting, Chicago.

Gerstner-Link, Claudia 1998. A typological approach to generics. Ms, University of Munich.

Geurts, Bart 1996 On No. Journal of Semantics 13, 67-86.

Glasbey, Sheila 1993. *Event structure in natural language discourse.* Ph. D. dissertation, University of Edinburgh.

Greenberg, Yael 1994. *Hebrew nominal sentences and the stage/individual level distinction.* M. A. Thesis, Bar-Ilan Unive sity, Israel.

Greenberg, Yael 1998. An overt syntactic marker of genericity in Hebrew. In Susan Rothstein, (ed.) 125-143.

Groenendijk, Jeroen, Theo Janssen, & Martin Stokhof (eds.) 1981. *Formal methods in the study of language*. Mathematisch Centrum, Amsterdam: Mathematical Cen er Tracts, 135.

Groenendijk, Jeroen & Martin Stockhof (eds.) 1987. Studies in discourse representation theory and the theory of generalized quantifiers. Keenan, Edward L. (ed.) 1975. Formal semantics of natural language. Cambridge: Cambridge University Press.

Krifka, Manfred 1987.

An outline of genericity, partly in collaboration with C. Gerstner. University of Tübingen: SNS-Bel cht 87-23.

Krifka, Manfred 1992. Definite NP's aren't quantifiers. *Lingusitic Inquiry* 23, 156-163.

Krifka, Manfred, F. Jeffry Pelletier, Gregory Carlson, Alice ter Meulen, Gennaro Chierchia, & Godehard Li k 1995. Genericity: an introduction. In Gregory Carlson and Frances Jeffry Pelletier (eds.), 1-124.

Kratzer, Angelika 1980. Die Analyse des bloßen Plural bei Gregory Carlson. *Linguistische Berichte* 70, 47-50.

Kratzer, Angelika 1995.

Stage-level and individual-level predicates. In Gregory Carlson and Frances Jeffry Pelletier (eds.), 1 5-174.

Kuroda, Sige-Yuki. 1972. The categorical judgement and the thetic judgement. *Foundations of Language* 9, 153-185.

Laca, Brenda 1990. Generic objects: some more pieces of the puzzle. Lingua 81, 25-46.

Laca, Brenda and Liliana Tasmowski 1994. Le pluriel indéfini de l'attribut metaphorique. *Lingvisticae Investigationes* 18, 27-47.

Ladusaw, William 1994. Thetic and categorical, stage and individual, weak and strong. In *Proceedings of Salt IV*. Ithaca, NY: Cornell University Department of Modern Languages and Linguistics. 220-229.

van Langendonck, Willy 1980. Indefinites, exemplars, and kinds. In Johan van der Auwera ed., 211-231.

Lasersohn, Peter 1997. Bare plurals and donkey anaphora. *Natural Language Semantics* 5, 79-86.

Lawler, John 1973.

Studies in English generics. Ann Arbor: University of Michigan Papers in Linguistics 1:1, Univers y of Michigan Press.

Le Pore, Ernie (ed.) 1987. New directions in semantics. London: Academic Press.

Lewis, David 1975. Adverbs of quantification. In Edward L. Keenan ed., 3-15.

Lin, Jo-Wang 1999

Double quantification and the meaning of *shenme* 'what' in Chinese bare conditionals. *Linguistics a d Philosophy* 22: 573-93.

Löbner, Sebastian 2000

Polarity in natural language: Predication, quantification and negation in particular and characterizing sentences. *Linguistics and Philosophy* 23: 213-308.

Longobardi, Giuseppe 1994.

Reference and proper names: a theory of N-movement in syntax and logical form. *Linguistic Inqui* y 25, 609-669.

Longobardi, Giuseppe 2000

"Postverbal" subjects and the mapping hypothesis. *Linguistic Inquiry* 31: 691-702.

Longobardi, Giuseppe 2001

How comparative is semantics? A unified parametric theory of bare nouns and proper names. To a pear in *Natural Language Semantics*.

Massam, Diane 2001 Pseduo noun incorporation in Niuean. *Natural Language and Linguistic Theory* 19: 153-97.

McNally, Louise 1992. An interpretation for the English existential construction. Ph.D. dissertation, University of Californi Santa Cruz

McNally, Louise 1995.

Bare plurals in Spanish are interpreted as properties. In Glyn Morrill and Richard Oehrle (eds.), 19 -212.

McNally, Louise 1998. Existential sentences without existential quantification. *Linguistics and Philosophy* 21, 353-392.

ter Meulen, Alice 1980. Substances, quantities, and individuals. Ph. D. dissertation, Stanford University.

de Mey, Sjaak 1980

Musan, Renate 1999

Temporal Interpretation and information-status of noun phrases. *Linguistics and Philosophy* 22: 62 -61.

Ojeda, Almerindo 1991. Definite descriptions and definite generics. *Linguistics and Philosophy* 14, 367-397.

Ojeda, Almerindo 1993 *Linguistic individuals.* Stanford: Center for the Study of Language and Information.

Partee, Barbara H. 1985

Stvan, Laurel 1998

The semantics and prgamatics of bare singular noun phrases. Ph.D. dissertation, Northwestern Uniersity.

Svenonius, Peter 1996 Predication and functional heads.

In *Proceedings of the Fourteenth West Coast Conference on Formal Linguistics*. Stanford: Center or the Study of Language and Information. 493-507.

de Swart, Henriette. 1993.

Definite and indefinite generics. In Paul Dekker & Martin Stokhof (eds.). 625-644.

de Swart, Henriëtte 1999

Indefinites between predication and reference. In *Proceedings of SALT 9*. Ithaca, NY: Cornell Univ rsity. 273-97.

de Swart, Henriëtte 2001 Weak readings of indefinites: type-shifting and closure. *The Linguistic Review* 18: 69-96

Torrego, Esther 1984. On inversion in Spanish and some of its effects. *Linguistic Inquiry* 15, 103-129.

Torrego, Esther 1989.

Unergative-unaccusative alternations in Spanish. *MIT working papers in linguistcs*. Department of Linguistics, MIT.

Vergnaud, Jean-R.oget, & Maria Luisa Zubizaretta 1992.
 The definite determiner and the inalienable constructions in French and English. *Linguistic Inquiry* 23, 595-652.

Wilkinson, Karina 1991.

Studies in the semantics of generic noun phrases. Ph. D. dissertation, University of Massachusetts Amherst.

Yoon, J-H. 1998. Indefinite proper nouns and stages. Korean Journal of Linguistics.

Zamparelli, Roberto 1995. Layers in the determiner phrase. Ph. D. dissertation, University of Rocheste

Zuber, Richard 1987. *To be, to be called* and generics. Ms., CRNS, University of Paris.