Tokens, Types, and Identity[*]

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1. Two Readings for Identity Statements Involving *Same* and *Different*

It is well-known that identity statements involving the adjectives *same* and *different* often allow for "type-identity" readings in addition to their expected "token-identity" readings. Consider the following examples:

(1) Enzo owns the same car as I used to own.

(2) The store sent me a different television than I had purchased.

Under one of its readings, example (1) asserts that I am a previous owner of the car that Enzo currently owns (perhaps he purchased the car from me). Under this reading for (1) (its token-identity reading), what is required is that Enzo's car be strictly identical to my previous car. Interestingly, the example can also assert that Enzo's car is merely of the same make, model, and perhaps year as my previous car. Under this weaker reading for (1) (its type-identity reading), the cars need not be strictly identical: if I previously owned a 2000 Volkswagen Jetta, then (1) will be true if Enzo currently owns another 2000 Volkswagen Jetta. A similar ambiguity can be detected for (2). Under one of its readings, the example asserts that I purchased one television set, but the store sent me another television set (perhaps I purchased a brand new 13-inch Sony Trinitron, but the store instead sent me a used 13-inch Sony Trinitron in poor condition). Under this reading for (2) (its token-identity reading), what is required is that the two televisions not be strictly identical, though they may be of the same brand and model. But (2) can also assert that I purchased a television of a certain brand and model, but the store sent me a television of another brand and/or model (perhaps I purchased a 21-inch Sharp Aquos, but the store instead sent me a 13-inch Sony Trinitron). Under this stronger reading for

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(2) (its type-identity reading), not only must the televisions be strictly non-identical, but they must also differ in some other respect.

As is already evident from the preceding discussion, there is an asymmetric entailment relation amongst the two sorts of readings: for (1), the token-identity reading entails the type-identity reading (since if Enzo's car is strictly identical to my previous car, than of course his car is also of the same make, model, and year as my previous car), and not vice versa, while for (2), the type-identity reading entails the token-identity reading (since two television sets of different brands and/or models of course cannot be strictly identical), and not vice versa. Unsurprisingly, these entailment relations are reversed in the presence of negation.

(3) Enzo doesn't own the same car as I used to own.

(4) (Contrary to what I previously claimed,) the store didn't send me a different television than I had purchased.

For (3), the type-identity reading entails the token-identity reading (and not vice versa), while for (4), the token-identity reading entails the type-identity reading (and not vice versa).

Previous research has taken this token/type distinction in identity statements to reflect variation in the relations required to hold between Enzo's car and my previous car by *same* and *different*, or else variation in the way that model-theoretic individuals correspond to real-world individuals. I propose instead that both the token-identity and type-identity readings for (1) and (2) require the relation of strict (non-)identity to hold amongst Enzo's car and my previous car. What distinguishes the readings is the nature of these individuals: type-identity readings involving *same* and *different* require that strict (non-)identity hold amongst types *qua* abstract individuals. The resulting analysis sheds light on several interesting facts about identity statements involving these adjectives, including the obligatory definiteness of noun phrases containing *same* and the possibility of "mixed"-identity readings for such statements.

2. Polysemous *Same* and *Different* vs. Polysemous Nouns

Upon first encountering examples like (1) and (2), two possible approaches naturally suggest themselves. The first would take the token/type distinction in identity statements to reflect variation in the denotations of *same* and *different*. Such a line of analysis is pursued by Heim (1985:23) (see also Beck 2000:(16)), who takes *same* and *different* to simply be ambiguous between '*x* is strictly (non-)identical to *y*' and 'the type that *x* instantiates is strictly (non-)identical to the type that *y* instantiates'. The former denotations produce the token-identity readings for (1) and (2), while the latter ones produce their type-identity readings. A rather different analysis of this sort is developed for *same* by Lasersohn (2000), within his Pragmatic Halos framework (see Lasersohn 1999). Lasersohn proposes that relative to a context *C*, the nominal expression *same car as I used to own* in (1) denotes the set of cars that differ from my previous car only in

ways which are pragmatically irrelevant in *C*.[1,2] The actual set denoted by this nominal expression will thus vary across contexts, as what counts as a pragmatically relevant difference also varies. The type-identity reading for (1) then arises in those contexts where the only pragmatically relevant differences between Enzo's car and my previous car are those pertaining to their make, model, and year, whereas its token-identity reading occurs when other differences, such as those pertaining to ownership or physical location, are also deemed relevant to the conversational purposes at hand.

The other possible approach would be to claim that the token/type distinction in identity statements stems not from variation in the denotations of *same* and *different*, but rather from variation in the denotations of the head nouns that these adjectives combine with. Nunberg (1984) provides an early version of this approach. Nunberg suggests that the different readings for (1) and (2) reflect the possibility of interpreting the sentences against different models. In particular, their token-identity readings arise when the individuals in the model stand in a one-to-one correspondence with individuals in the world, while their type-identity readings arise when the individuals in the model stand in a one-to-many correspondence with individuals in the world, so that a particular model-theoretic individual may stand as an exemplar for a class of real-world individuals. Under either reading, *same* and *different* express strict (non-)identity; what changes is the number of model-theoretic individuals that the nouns *car* and *television* apply to.

The analysis that will be developed here is a version of the second approach. It differs from Nunberg's analysis by not requiring that the model of interpretation vary across the token- and type-readings of a given identity statement. (See Lasersohn (2000) for conceptual and empirical arguments against this aspect of Nunberg's proposal.) Instead, I claim that relative to a single model, nouns such as *car* or *television* are polysemous between token-level and type-level denotations, and that this polysemy, rather than any associated with *same* and *different*, is ultimately responsible for the two readings of (1) and (2). As shall be seen in the next section, empirical support for such an analysis comes from the behavior of noun phrases that do not contain *same* or *different*.

3. Reference to Types in Natural Language

Although the aforementioned works focus upon its relevance to identity statements, the token/type distinction is in fact a more widespread phenomenon. The presence of *same* or *different* is not necessary for a noun phrase to receive a type interpretation; as the following examples illustrate, reference to types can be accomplished with all sorts of noun phrases (e.g., definite, indefinite, and quantificational).

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[1] Lasersohn does not analyze cases where *same* occurs with an *as*-clause. Following the spirit of his analysis, I assume that *as I used to own* in (1) simply picks out the (unique) car that I used to own.

[2] Lasersohn ultimately modifies this proposal slightly in order to capture the obligatory definiteness of noun phrases containing *same*: {*the*, **a*} *same car as I used to own*. See section 4 below.

(5) (Pointing at a copy of *The Great Gatsby*) I'd like to buy that book.

(6) We have more than 10,000 books in stock.

(7) (Pointing at a pile of books) I've already read each of those books.

Under its token reading, example (5) asserts that the speaker is interested in purchasing the indicated copy of *The Great Gatsby*; some other copy will not suffice. Under the type reading for (5), what is asserted is merely that the speaker is interested in purchasing some copy of *The Great Gatsby*; it need not be the indicated one. Similarly, example (6) (taken from Geurts 1996:(22)) can assert that the bookstore has more than 10,000 book copies in stock (token reading), or that the bookstore has copies of more than 10,000 book titles in stock (type reading). Example (7) illustrates that even a quantificational noun phrase like *each of those books* may receive a type interpretation: the example can assert either that the speaker has already read each book copy that is present in the pile (token reading), or that s/he has simply read some copy of each book title that is represented in the pile (type reading). Under the latter, type reading for (7), the speaker need not have previously encountered any of the indicated book copies.

Examples like these are considered by Krifka et al. (1995:77) and Geurts (1996); these authors suggest that under their type readings, such examples involve reference to (or quantification over) types *qua* abstract individuals. They further analogize these abstract individuals to those implicated in reference to (or quantification over) natural kinds (see, e.g., Carlson 1977, Krifka 1995, Chierchia 1998). Beginning with Carlson's (1977) seminal work, much semantic research has assumed that in addition to ordinary, concrete individuals, our domain of individuals D_e also contains abstract individuals corresponding to natural kinds.[3] These latter sorts of individuals can be referred to (e.g., by *that kind of bird*) and quantified over (e.g., by *every kind of bird*), just as with ordinary individuals.[4] What Krifka et al. and Geurts propose is that the domain D_e be further enriched to include abstract individuals corresponding to types, such as book titles or automobile models. The possibility of type readings for the preceding examples then follows from the assumption that the noun phrases *that book*, *more than 10,000 books*, and *each of those books* may refer to (or quantify over) abstract individuals corresponding to book titles, as well as concrete copies of these titles.

In support of this proposed analogy between types and kinds *qua* abstract individuals, we can observe the following parallels between reference to types and reference to natural kinds. First, just as there are predicates that apply to kinds but not

[3] In addition to kinds and ordinary individuals, Carlson further distinguished a third category of entities, which he dubbed "stages"; these are to be regarded as spatiotemporal manifestations of ordinary individuals ("objects", in Carlson's terms). I do not deal with stages in this paper, but see Barker 1999 on their relevance to the semantics of *different*.

[4] Of course, Carlson 1977 is best known for its proposal that bare plurals in English (e.g., *birds*) also refer to kinds. Here, I confine my attention to kind terms in which the common noun *kind* appears explicitly.

their instances, such as *common*, *invent*, and *extinct*, so too are there predicates that apply to types but not their tokens, such as *distribute*, *design*, and *discontinue.*

(8) a. That kind of animal is common throughout Asia.
b. A Finnish engineer invented that kind of turbine.
c. This kind of bird is now extinct.

(9) a. This book was distributed widely.
b. That car was designed by the engineers at General Motors.
c. That Sony television has been discontinued.

The noun phrases *this book*, *that car*, and *that Sony television* in (9) obligatorily receive type interpretations, due to the selectional restrictions imposed by the verbal predicates in these examples. In (9c), for instance, it is only a television model that may be discontinued, not any particular television set. Certain predicates, such as *rare*, apply equally well to kinds and types.

(10) That kind of animal is rare.

(11) This book is rare.

Second, both kind and type terms give rise to existential readings in the presence of episodic predicates and generic readings in the presence of characterizing predicates.

(12) a. (Pointing at a picture of a spider monkey)
I saw that kind of monkey at the zoo yesterday.
b. (Pointing at a red-tailed hawk)
That kind of bird was sitting in our tree yesterday.

(13) a. (Pointing at a friend's copy of *Lolita*)
I just checked that book out from the library.
b. (Pointing at an ad for a 2007 Porsche Carrera)
That car is parked in front of our house right now.

(14) a. (Pointing at a mosquito) That kind of insect carries malaria.
b. (Pointing at a duck-billed platypus) That kind of animal suckles its young.

(15) a. (Pointing at an ad for a 21-inch Sharp Aquos television)
That television costs more than 400 dollars.
b. (Pointing at an ad for a 2007 Toyota Prius) That car gets good gas mileage.

The examples in (12) and (13) are ultimately concerned with the existence of instances/tokens realizing the relevant kinds/types to which the episodic predicate applies: (12a) asserts that the speaker saw some instance(s) of the indicated kind of monkey, while (13a) asserts that the speaker just checked out some copy of the indicated book title. In contrast, the examples in (14) and (15) express generalizations about the

instances/tokens realizing the relevant kinds/types, albeit ones that readily allow for exceptions: (14a) is not falsified by the existence of malaria-free mosquitos, nor is (15a) by an electronics sale.

Third, both kind and type terms exhibit what Carlson (1977) dubbed "differentiated scope". The examples in (16) and (17) have readings under which the adverbials *everywhere* and *for two years* "scope over" the noun phrases *that kind of bird* and *that car* (under its type interpretation), in that the instances/tokens of the latter's referents may vary across locations and times.

(16) a. That kind of bird is found everywhere.
b. (Spoken by a pet store owner) We sold that kind of bird for two years.

(17) a. That car is for sale everywhere.
b. (Spoken by a car salesman) We sold that car for two years.

In contrast, the indefinite noun phrases *a bird* and *a car* (under their instance/token interpretations) in (18) and (19) obligatorily take wider scope than *everywhere* and *for two years*.

(18) a. A bird is found everywhere.
b. (Spoken by a pet store owner) We sold a bird for two years.

(19) a. A car is for sale everywhere.
b. (Spoken by a car salesman) We sold a car for two years.

Because only the bizzare '$\exists > \forall$' readings are possible in (18) and (19), no variation of instances/tokens across locations or times is permitted by these examples.

Finally, kind and type terms serving as pronominal antecedents pattern analogously with respect to the readings that they allow for. In (20) and (21), both clauses may be read opaquely. In (20), neither Anna nor Nora need be looking for any particular instance of the indicated kind of bird, nor the same instance, while in (21) (with a type interpretation for *that car*), they needn't want to drive any particular token of the indicated car model, nor the same token.

(20) Anna is looking for that kind of bird, and Nora is looking for it too.

(21) Anna wants to drive that car, and Nora wants to drive it too.

In contrast, both clauses must be read transparently in (22) and (23) (with instance/token interpretations for the indefinite noun phrases *a bird* and *a car*).

(22) Anna is looking for a bird, and Nora is looking for it too.

(23) Anna wants to drive a car, and Nora wants to drive it too.

In (22), both Anna and Nora must be looking for a particular bird, in fact the same bird, while in (23), they both must want to drive a particular car, in fact the same car.

The preceding facts demonstrate that reference to types displays the characteristic properties of reference to natural kinds. They thus justify the view expressed by Krifka et al. and Geurts that abstract individuals corresponding to types reside alongside abstract individuals corresponding to natural kinds in the domain of individuals D_e. (In line with Krifka (1995:402-3) and Chierchia (1998:350-1), I assume that the distinction between types and natural kinds is a sortal distinction, and not an ontological one; see also de Swart, Winter, and Zwarts 2007:206-8.) Since none of the above examples constitutes an identity statement, the facts also support the view that the token/type distinction is ultimately a feature of nouns, rather than the adjectives *same* and *different*. Perhaps the simplest way to implement this idea is to assume that a noun like *book* may receive distinct, but related, interpretations. Under one of these interpretations, its token-level interpretation, *book* simply denotes the set of concret book copies (tokens) in D_e. Amongst the members of this set will be the copy of *The Great Gatsby* that is currently sitting on my bookshelf, the copy of *The Great Gatsby* that I noticed on my neighbor's bookshelf, the copy of *Syntactic Structures* that I borrowed from the library, etc. Under its other interpretation, its type-level interpretation, *book* denotes the set of abstract individuals in D_e corresponding to book titles (types). Amongst the members of this set will be *The Great Gatsby*, *Syntactic Structures*, *Crime and Punishment*, etc. A perfectly parallel assumption is often made to account for so-called "taxonomic" interpretations of noun phrases, as in the following examples (see, e.g., Carlson 1977, Krifka et al. 1995, Dayal 2004, and Gronn 2006).

(24) That bird will soon be extinct.

(25) Ornithologists are currently debating whether a certain bird, namely the ivory-billed woodpecker, is extinct.

(26) Sadly, there may come a time when every bird has become extinct.

The noun phrases *that bird*, *a certain bird*, and *every bird* refer to (or quantify over) kinds of birds in (24)–(26), as evidenced by their felicitous occurrence with the kind-level predicate *extinct*. Such taxonomic interpretations follow straightforwardly from the assumption that *bird* may denote either the set of concrete bird specimens (instances) in D_e, or the set of abstract individuals in D_e corresponding to bird species (kinds). That such polysemy is present in both realms can be seen as further motivation for a formally analogous treatment of types and natural kinds.

4. Strict Identity amongst Tokens vs. Strict Identity amongst Types

Given the presence of abstract individuals corresponding to types, a very simple account of the token/type distinction in identity statements becomes possible. Under either reading for (27), *same* requires strict identity to hold between Enzo's car and Bill's car.

(27) Enzo owns the same car as Bill used to own.

(In what follows, I focus only on identity statements involving *same*, though the proposal can be carried over (basically) untouched to those involving *different*.) The difference between the two readings then lies in whether these cars are construed as concrete car-tokens or abstract car-types, i.e., in whether the denotation of the noun *car* is the set of concrete automobiles in D_e (represented by $\boldsymbol{car}_{token}$) or the set of abstract automobile models in D_e (represented by $\boldsymbol{car}_{type}$). More specifically, I propose the following logical representations for the two readings of (27).

(28) *Enzo owns the same car as Bill used to own* is true (under its token-identity reading) iff $\boldsymbol{own}(\boldsymbol{e}, \iota x[\boldsymbol{car}_{token}(x) \,\&\, x = \iota y[\boldsymbol{car}_{token}(y) \,\&\, \boldsymbol{used\text{-}to\text{-}own}(\boldsymbol{b}, y)]])$

(29) *Enzo owns the same car as Bill used to own* is true (under its type-identity reading) iff $\boldsymbol{own}(\boldsymbol{e}, \iota x[\boldsymbol{car}_{type}(x) \,\&\, x = \iota y[\boldsymbol{car}_{type}(y) \,\&\, \boldsymbol{used\text{-}to\text{-}own}(\boldsymbol{b}, y)]])$

Apart from the semantic contribution of *car*, the logical representations in (28) and (29) are otherwise identical.

Let us now turn to the compositional derivation of the two readings, beginning with *same*. As noted above, a very simple view of the denotation for this adjective (perhaps the simplest view possible) will suffice for our purposes, namely that it expresses the relation of strict identity.

(30) $\boldsymbol{same} = \lambda y.\lambda x.x = y$

(The denotation for *different* substitutes '≠' for '='.) The first argument to *same* is provided by its *as*-clause, which should thus denote an individual; in (27), this individual is either the (unique) car-token or the (unique) car-type that Bill used to own. In formulating a semantics for the *as*-clause, we will take advantage of the deep affinity that exists between constructions headed by *same* and *different* and comparative constructions headed by *more*/*–er*, *less*, and *as* (see Alrenga 2007 for an in-depth discussion of the "comparative" nature of *same* and *different*). In particular, we will adapt Kennedy's (2002) treatment of comparative *than*-/*as*-clauses, which assigns to the *as*-clause *as Bill used to own* in (27) the syntactic derivation in (31).

(31) the same car as $[_{CP}$ Bill used to own $[_{DP}\ D_{ID}$ car]]
$\Rightarrow$ the same car as $[_{CP}\ [_{DP}\ D_{ID}$ car$]_i$ Bill used to own $t_i]$
$\Rightarrow$ the same car as $[_{CP}\ [_{DP}\ D_{ID}$ ~~car~~$]_i$ Bill used to own $t_i]$

The structure in (31) is derived by movement of [$_{DP}$ D_{ID} car] to the specifier of the CP complement of *as*, with subsequent deletion of the noun *car* under identity with the head noun of the entire DP. The moved DP is headed by the null determiner D_{ID}, which receives the denotation in (32).

(32) $D_{ID} = \lambda P.\lambda Q.\iota y[P(y) \,\&\, Q(y)]$

Under either a token or type interpretation for *car*, the denotation of the *as*-clause is derived compositionally as in (33).

(33) a. $[\lambda P.\lambda Q.\iota y[P(y) \,\&\, Q(y)]](\lambda x.\textbf{\textit{car}}_{\text{token}}(x))(\lambda x.\textbf{\textit{used-to-own}}(\textbf{\textit{b}}, x))$
$= \iota y[\textbf{\textit{car}}_{\text{token}}(y) \,\&\, \textbf{\textit{used-to-own}}(\textbf{\textit{b}}, y)]$
b. $[\lambda P.\lambda Q.\iota y[P(y) \,\&\, Q(y)]](\lambda x.\textbf{\textit{car}}_{\text{type}}(x))(\lambda x.\textbf{\textit{used-to-own}}(\textbf{\textit{b}}, x))$
$= \iota y[\textbf{\textit{car}}_{\text{type}}(y) \,\&\, \textbf{\textit{used-to-own}}(\textbf{\textit{b}}, y)]$

The entire *as*-clause is thus interpreted as a definite description over individuals.

Upon saturation of its first argument with the individual denoted by the *as*-clause, *same* combines intersectively with the head noun *car*, yielding either (34a) or (34b) as the denotation for the nominal expression *same car as Bill used to own.*

(34) a. $\lambda x.\textbf{\textit{car}}_{\text{token}}(x) \,\&\, x = \iota y[\textbf{\textit{car}}_{\text{token}}(y) \,\&\, \textbf{\textit{used-to-own}}(\textbf{\textit{b}}, y)]$
b. $\lambda x.\textbf{\textit{car}}_{\text{type}}(x) \,\&\, x = \iota y[\textbf{\textit{car}}_{\text{type}}(y) \,\&\, \textbf{\textit{used-to-own}}(\textbf{\textit{b}}, y)]$

In both (34a) and (34b), the nominal expression *same car as Bill used to own* is guaranteed to denote a singleton set, namely that consisting entirely of the unique concrete automobile or abstract automobile model that Bill used to own. This analysis thus makes some sense of the obligatory definiteness of noun phrases containing the adjective *same* (cf. {*the*, **a*} *same car as Bill used to own*) under either a token or type interpretation, a welcome result. Composition with the definite determiner *the* results in (35a) or (35b).

(35) a. $\iota x[\textbf{\textit{car}}_{\text{token}}(x) \,\&\, x = \iota y[\textbf{\textit{car}}_{\text{token}}(y) \,\&\, \textbf{\textit{used-to-own}}(\textbf{\textit{b}}, y)]]$
b. $\iota x[\textbf{\textit{car}}_{\text{type}}(x) \,\&\, x = \iota y[\textbf{\textit{car}}_{\text{type}}(y) \,\&\, \textbf{\textit{used-to-own}}(\textbf{\textit{b}}, y)]]$

It is then a simple matter to derive the logical representations shown in (28) and (29).

Of course, even under its type-identity reading, (27) requires the existence of concrete automobiles (tokens) belonging to Enzo and Bill. This entailment should follow from whatever general repair mechanism permits kind and type terms to occur with predicates that ordinarily apply to concrete individuals, as illustrated by the examples in (12) and (13) from the previous section. Specifically, let us extend Chierchia's (1998:364) 'Derived Kind Predication' (DKP) rule to cover types as well.

(36) Derived Kind/Type Predication: If $\boldsymbol{P}$ does not apply to kinds/types and $\boldsymbol{a}$ is a kind/type, then $\boldsymbol{P}(\boldsymbol{a}) = \exists x[\boldsymbol{R}(x, \boldsymbol{a}) \,\&\, \boldsymbol{P}(x)]$
(with pointwise generalization to *n*-place relations)

The relation $\boldsymbol{R}$ in (36) serves to relate a concrete individual to the kinds/types that it instantiates. The entailment from (27) to the existence of concrete automobiles belonging to Enzo and Bill then follows via two applications of DKP, one in the *as*-clause and another in the matrix clause.

(37) *Enzo owns the same car as Bill used to own* is true (under its type-identity reading) iff $\boldsymbol{own}(\boldsymbol{e}, \iota x[\boldsymbol{car}_{\text{type}}(x) \,\&\, x = \iota y[\boldsymbol{car}_{\text{type}}(y) \,\&\, \boldsymbol{used\text{-}to\text{-}own}(\boldsymbol{b}, y)]])$
$\Rightarrow \boldsymbol{own}(\boldsymbol{e}, \iota x[\boldsymbol{car}_{\text{type}}(x) \,\&\, x = \iota y[\boldsymbol{car}_{\text{type}}(y) \,\&\, \exists w[\boldsymbol{R}(w, y) \,\&\, \boldsymbol{used\text{-}to\text{-}own}(\boldsymbol{b}, w)]]])$
(via application of DKP in *as*-clause)
$\Rightarrow \exists z[\boldsymbol{R}(z, \iota x[\boldsymbol{car}_{\text{type}}(x) \,\&\, x = \iota y[\boldsymbol{car}_{\text{type}}(y) \,\&\, \exists w[\boldsymbol{R}(w, y) \,\&\, \boldsymbol{used\text{-}to\text{-}own}(\boldsymbol{b}, w)]]]) \,\&\, \boldsymbol{own}(\boldsymbol{e}, z)]$
(via application of DKP in matrix clause)

Because each application of DKP in (37) introduces its own existential quantifier, there is no guarantee that the concrete automobiles belonging to Enzo and Bill are strictly identical, which is exactly the result that we desire.

5. Some Additional Data

Let me conclude this paper by briefly considering two further observations, both originally due to Nunberg (1984). The first demonstrates that type-identity readings are not always available: Nunberg notes that (38) cannot mean that one Ford Falcon crashed into another Ford Falcon.

(38) ?A Ford Falcon was headed south on Highway 101, went out of control, and crashed into the same car.

Our approach to type-identity readings suggests an explanation, namely that DKP cannot apply to resolve the mismatch between the type-level individual denoted by *the same car* and the predicate *crash*, which applies to concrete individuals. Though the reasons for this failure remain obscure to me, the oddity of the examples in (39) indicates that the account is on the right track.

(39) a. (Pointing at an ad for a 2007 Porsche Carrera)
?Last week, I almost crashed into that car.
(cf. *Last week, I almost crashed into a Porsche Carrera.*)
b. (Pointing at a sports utility vehicle)
?Last week, I almost crashed into that kind of car.
(cf. *Last week, I almost crashed into an SUV.*)

Nunberg also notes the intriguing possibility of "mixed" readings for identity statements: (40) apparently asserts that the book copy (token) that Otto has been carrying around is identical to the book title (type) that he voted to ban.

(40) Otto has been carrying around the same book as he voted to ban last year.

Under our approach, (40) can be analyzed as a case of identity amongst types in which DKP applies in the matrix clause only. The predicate *ban* that occurs in the *as*-clause is one which may basically apply to abstract individuals corresponding to kinds and types, so DKP need not be called upon here.

(41) *Otto has been carrying around the same book as he voted to ban last year* is true iff $\boldsymbol{carry}(\boldsymbol{o}, \iota x[\boldsymbol{book}_{\text{type}}(x) \,\&\, x = \iota y[\boldsymbol{book}_{\text{type}}(y) \,\&\, \boldsymbol{voted\text{-}to\text{-}ban}(\boldsymbol{o}, y)]])$
$\Rightarrow \exists z[\boldsymbol{R}(z, \iota x[\boldsymbol{book}_{\text{type}}(x) \,\&\, x = \iota y[\boldsymbol{book}_{\text{type}}(y) \,\&\, \boldsymbol{voted\text{-}to\text{-}ban}(\boldsymbol{o}, y)]]) \,\&\, \boldsymbol{carry}(\boldsymbol{o}, z)]$
(via application of DKP in matrix clause)

We see, then, that despite their paradoxical appearance, examples like (40) in fact follow straightforwardly from the analysis developed here.

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