

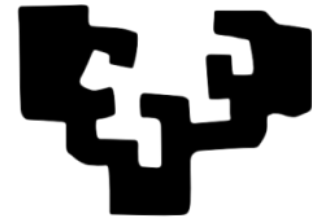
The creative and the fluffy:
English D+Adj and the
Property Ontology



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Sinn und Bedeutung 18

September 2013

University of the Basque Country

Introduction

English D+Adj: Preview

- **The creative** are more likely to be intrinsically (internally) motivated
- I did wear skirts and dresses when I was younger...but at a certain point **the pink and the fluffy** just started to disappear from my wardrobe.
- Claim: these 2 instances of D+Adj have 2 different readings
 - Creative: *Individuated* reading
 - Fluffy: *Mass* reading



Empirical goals

- Show that the individuated and mass readings are **conceptually** and **grammatically** distinct
- Lay out the empirical properties of *both* readings
- Since most work on English D+Adj has focused only on the *individuated* reading
- The mass reading has been noted, mainly in other languages but has barely been studied in English
 - Kester 1996 – Dutch; Giannakidou and Stavrou 1999 – Greek; Goes 2007 – French

Theoretical claims (1)

- The individuated reading denotes a **collection of individuals** that the adjective maps to true (e.g. creative people)
- The mass reading denotes an **abstract mass substance** – “portions” of the property denoted by the adjective (e.g. portions of pinkness, fluffiness (following Giannakidou and Stavrou 1999))

Theoretical claims (2)

- These 2 readings each correspond to a different type of “**individual correlate**” of a property (more on this later)
- A property has **two linguistically accessible facets**:
 - (1) the individuals it maps to *true* (the individuated reading) at a world/context
 - *The creative*: the individuals mapped to *true* by $\lambda x . \text{creative}(x)$
 - (2) the property’s *essence as an abstract mass substance* (the mass reading)
 - *The fluffy*: the context’s maximal portion of the abstract mass *fluffiness*

Theoretical claims (3)

- Like Ulwa, Hausa, Wolof, and other under-documented languages (Francez and Koontz Garboden 2010; Baglini 2013)...
- Our very own English also **provides evidence that properties can be encoded as abstract mass substances**, even without (overt) nominalizing morphology

Road Map

- Data (all from the Web)
- Previous analyses
- D+Adj and kinds
- Background on properties
- Analysis
- Conclusion

Data

Conceptually distinct (1)

Individuated reading

- **Individuals (not just humans, either)**
- Could be paraphrased as *adjective+people* or *adjective+things* (*creative people, weak things*), but not as *adjective+ness*

Mass reading

- **Concepts as abstract entities**
- Could be paraphrased as *adjective+ness* (*pinkness, fluffiness*) or other nominalizing morphology

Conceptually distinct (2)

Individuated reading

- **The cranky** are free to shake their fists and tell her to get off their lawn
- Could only be paraphrased as *cranky people*, NOT *crankiness*

Mass reading

- Ngai makes the case that **the cute** is perhaps the dominant aesthetic category of our late-capitalist times
- Could be paraphrased as *cuteness*

What does D+Adj refer to?

Individuated reading

- New Swarm Theory: **The Weak Can Lead the Strong** [topic: insects]
- where fascinating creatures and pioneering scientists reveal **how the fittest** are made

Mass reading

- Whereas the scale of a typical Disney cartoon is small, tending toward **the diminutive** and **the cute**,
- ...the scale of *The Prince* [of Egypt] is vast, tending toward **the sublime** and **the infinite**

Productivity across Dixon classes

- Dixon’s “Property Concepts” (PC’s) are lexicalized as adjectives in languages that have adjectives (Dixon 1982)

Dimension: *big, small, long, tall, short, wide, deep*

Age: *new, young, old*

Value: *good, bad, lovely, atrocious, perfect, proper*

Color: *black, white, red*

Physical: *hard, soft, heavy, wet, rough, strong, hot, sour*

Speed: *fast, quick, slow*

Human Propensity: *jealous, happy, kind, clever, generous, cruel, proud*

- Both readings of D+Adj are productive across all Dixon classes (examples in Appendix)

Reading isn't lexically specified

Individuated reading

- Liberals don't want **the rich** to pay more taxes
- **The pretty** are expected to achieve [article about lookism]
- Quit talking sense! This is LACurbed [website], where **the silly** are bashed no matter what!

Mass reading

- The sweet and the salty, **the rich and the creamy** - If this sounds good to you, here is how you can make your own [topic: cupcakes]
- **The pretty** is boring. There must be strength and power
- I think **the silly** is my favourite part of your books

Grammatically distinct: Agreement

Individuated reading

- In truth, the lucky **are** often no more deserving than anyone else

Mass reading

- A lot of the fluffy **is** gone. This blog has gone from a modge podge of crafts, family, nonsense and special needs to mostly special needs

Diverse determiners

Individuated reading

- Not just *the*:
- **Some fired** say they are so relieved to be jobless just so they can be done with that school
- Give me **your** tired, **your** poor/Your huddled masses yearning to breathe free (Emma Lazarus's poem on the Statue of Liberty)

Mass reading

- Not just *the*:
- Mix **some** salty with your sweets
- Stop! **Your** nice is infecting me!

Grammatically distinct: Mass, Count D's

Individuated reading

- **Too Many** Rich are Unwilling to Share
 - Many dogs/*many rice
- How about because **few rich** are philanthropic, or do a poor job cleaning their reputations by exposing their generosity?
 - Few dogs/*few rice

Mass reading

- Stars Bring **A Little Too Much** Sexy To The Beach
 - Much rice/*much dogs
- My personal opinion is that **too much sweet** is bad for you.
- Good counterpart to Ricky. It's good to have a balance. **Too much pretty** is sickening.
 - (topic: Ricky Martin's boyfriend's attractiveness)

Grammatically distinct: Plurals

Individuated reading

- In Desperate Bid To Be Down With **The Youngs**, *Sports Illustrated* Uses Instagram Photos
- *Uncommon and socially marked but well attested*

Mass reading

- *Not attested*

Similarities: Modifiers, comparison

Individuated reading

- the **very** rich have been pulling away from the **pretty** rich, and the **very, very** rich have been pulling away from the **very** rich
- You'll compete with the **chicest** of the chic and the **cheapest** of the cheap

Mass reading

- Arugula flowers...can often be very spicy. (Of course the **very** spicy is extremely nutritious)
- Vertical discrimination discriminates between the **higher** and the **lower**, between the good and the **less** good...

Data summary

Test	Individuated reading	Mass reading
Productive	Yes	Yes
Dixon classes	Attested with all	Attested with all
Agreement	Plural	Singular
Conceptual construal	Individuals (often humans)	Abstract concept
Determiners	<i>The; some; many</i>	<i>The; some; much</i>
Plural marking	Marked but attested	Not attested
Degree modifiers	Attested	Attested Count vs. Mass!
Comparison	Attested	Attested

Two previous analyses

- See also Kester 1996, Borer and Roy 2005 for a more syntactic perspective
- See Goes 2007 for discussion of French, arguing that adjectives and nouns form a continuum rather than discrete categories

Chierchia 1998

- Individuated reading (*the rich*) “can be used for generic and kind reference”
- Structure: adjective modifying null noun

Chierchia: Reasons to revise

- Data I just presented shows that:
 - Not just individuated reading; also mass reading
 - Not just humans
 - Not just *the*
- Larger problem: How does D+Adj relate to *kinds*?
We'll come back to this

Giannakidou and Stavrou

- Definite determiner type-shifts the adjective into the kind corresponding to the adjective – enacting Chierchia 1998’s “down” operator (which shifts properties to kinds)
 - E.g. in *the blind, the* shifts *blind* to a “kind”
 - Motivated because the definite determiner is used in kind reference (*the dodo is extinct*)
 - And because “lexical restrictions” on D+Adj arise when we can’t identify a corresponding kind

G&S: Reasons to revise

- Data I just presented shows: definite determiner is not always present
- So should not locate the crucial semantic step in definite determiner
- Data also shows: construction is quite productive
- So “lexical restrictions” do not necessarily mean that D+Adj should be analyzed as kind-denoting

G&S: Reasons to revise

- They do note the mass reading and analyze it as an abstract mass substance (I agree)
- But, it's not clear why/how mass reading is distinct from individuated reading
- Larger issue (up next): How does D+Adj relate to *kinds*?

Kinds

Main claim

- Previous analyses (Chierchia 1998; Kester 1996; Giannakidou and Stavrou 1999) assume that D+Adj is necessarily “generic” or kind-denoting
- But I will show that it is *not* always kind-denoting
- And sometimes, depending on the determiner, *cannot* denote a kind
- Thus we cannot analyze D+Adj in terms of kinds alone

What are kinds?

“Kinds are...**regularities** that occur in nature. They are similar to individuals like you and me, but their **spatiotemporal manifestations are typically ‘discontinuous.’**” (e.g. *dogs/dog-kind*) (Chierchia 1998: 348, building on Carlson 1977)

“Artifacts (like chairs or cars) or complex things (like intelligent students or spots of ink) can qualify as kinds, to the extent that we can impute to them a sufficiently regular behavior...” (*ibid*)

Kinds in the grammar (1)

- In English, kinds can be expressed with bare plurals, and the singular definite determiner (*dogs are / the dog is humanity's best friend*)
 - Singular indefinite (*a dog is a mammal*) is slightly different (Lawler 1973, Krifka 2012); I'll ignore it here
- Bare plurals and singular definite determiners can also express concrete manifestations (*my garden was ruined by dogs / the dog*)

Kinds in the grammar (2)

- Mass nouns can denote kinds: *Rice is a staple food.*
- And can denote concrete portions: *I spilled rice.*

Does D+Adj denote a kind?

Individuated reading

- Can denote a kind: *The rich are different.*
- But not always: *The rich are coming [to the Rockies] not just to ski... They are coming to...secure permanent residence for tax purposes.*
- Depends on determiner: *Some rich say, 'Tax us.'* (not kind-denoting)

Mass reading

- Can denote a kind: *Just as the cute is no longer associated solely with Japan....*
- But not always: *I cannot handle the cute that is about to follow* (pictures of toddler)
- Depends on determiner: *Add some pretty to your bouquet handles.* (not kind-denoting)

D+Adj and kinds

- When D+Adj uses definite determiner (*the creative, the fluffy*), it can denote a kind, or it can not – depends on context
- When D+Adj uses an indefinite determiner (*some rich, some pretty*), it does not denote a kind
- Kind *and* non-kind readings are available
- Some surprising quirks (see Appendix)

D+Adj and Kinds

- There are many open questions about when/why/how D+Adj can refer to a kind
 - And about kinds in the grammar more generally
- But it is clear that D+Adj does not consistently denote a kind
 - Especially because the determiners are more diverse than previously thought
- Thus, I do not invoke kinds in my analysis here

Instead...

- Rather than explain D+Adj in terms of kinds, I propose we try to explain it by considering:
- What are adjectives?
 - They denote properties (in languages that have adjectives – Dixon 1982)
- What are properties?
- In what way(s) are properties encoded linguistically?

Background on Properties

Properties and predication

Properties are “Those entities that can be predicated of things or, in other words, attributed to them...they *characterize* objects or, conversely...objects *instantiate* or *exemplify* them” (SEP, ital. in original)

“**Predication** is typically viewed as a special link that connects a **property** to a **thing** in a way that gives rise to a proposition” (SEP)

- Bonnie is brilliant
- *Brilliant* characterizes Bonnie
- Bonnie *instantiates/exemplifies* **brilliance**

Nominalized properties

“Predicates can be *nominalized* by means of appropriate suffixes such as ‘ity’ or ‘ness’ or via gerundive or infinitive phrases” (SEP)

- Frege 1892: “Nominalized predicates stand for a ‘correlate’ of the unsaturated” predicate
 - For example, the predicate *runs* has the correlate *running* (e.g. *running is fun*); the predicate *strong* has the correlate *strength*
- Semantically, correlates are analyzed as *individuals* by e.g. Chierchia 1998, Chierchia and Turner 1988 (but in a different way); and McNally 2006

Nominalized properties

- In some languages, properties are lexicalized as nouns in the first place (rather than predicates) – e.g. *strength* rather than *strong*
 - Francez and Koontz Garboden (under review); Baglini 2013

Chierchia and Turner 1988

“Properties have two roles or **exist in two guises**. On the one hand they are intrinsically ‘incomplete’ or ‘**unsaturated**’ structures...On the other hand, properties also have an **individual nature** and as such can play the role of **subjects** in acts of predication.” (264)

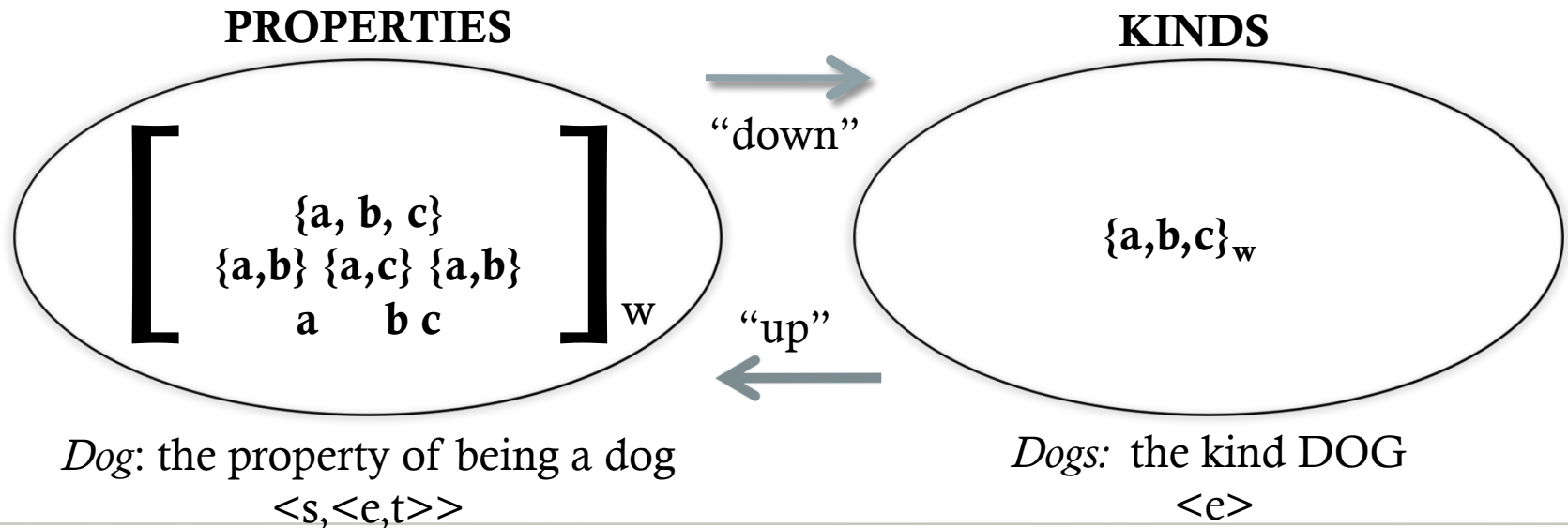
“Consider *runs* as in *John runs*. *Runs* is ...an incomplete structure. However *runs* is morphologically related to *running* as in *running is fun*. *Running* ... denotes an individual: the **individual correlate**...associated with *runs*.” (264-265)

- A “Fregean” view: properties as **functions** (*runs*) and as **individuals** (*running*)

Chierchia 1998

“**Kinds** can be regarded as the ‘nominalization’ of...predicative common nouns” (which are properties) (349)

- A rather different notion of “individual correlate”



C&T vs. Chierchia

C&T 1988

- Properties exist as functions: *runs, (is a) dog*
- And as individuals – **gerunds** and **infinitives**:
 - *Running; doghood/to be a dog?*
- I'll argue we need this

Chierchia 1998

- Properties exist as functions: *(is a) dog, (is a) runner*
- And as individuals – **kinds**: **pluralities** of all the **members** of the set (in all possible worlds) denoted by the property
 - *Dog-kind; runner-kind*
- I'll argue we need something sort of like this too

Analysis

Semantic tools (1)

Individuals

- If x and y are creative individuals, $x+y$ is **not** a creative individual
- If x is a creative individual, then it's **not** the case that every subpart of x is a creative individual



Portions

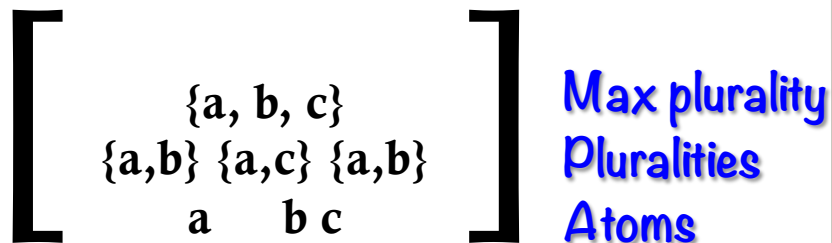
- If x and y are portions of fluffiness, $x+y$ **is** a portion of fluffiness
- If x is a portion of fluffiness, then every subpart of x **is** also a portion of fluffiness



Semantic tools (2)

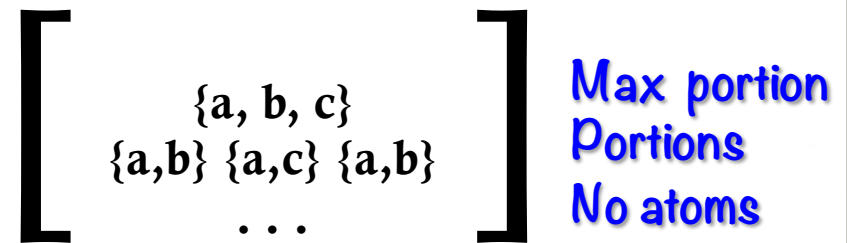
Individuals

- A join semi-lattice *with* atoms (Link 1982)
- Atoms can be joined to make a *plurality*



Portions

- A join semi-lattice with *no* atoms (Link 1982)
- Portions can be joined to make a (larger) portion



Semantic analysis: Intuition

Individuated reading

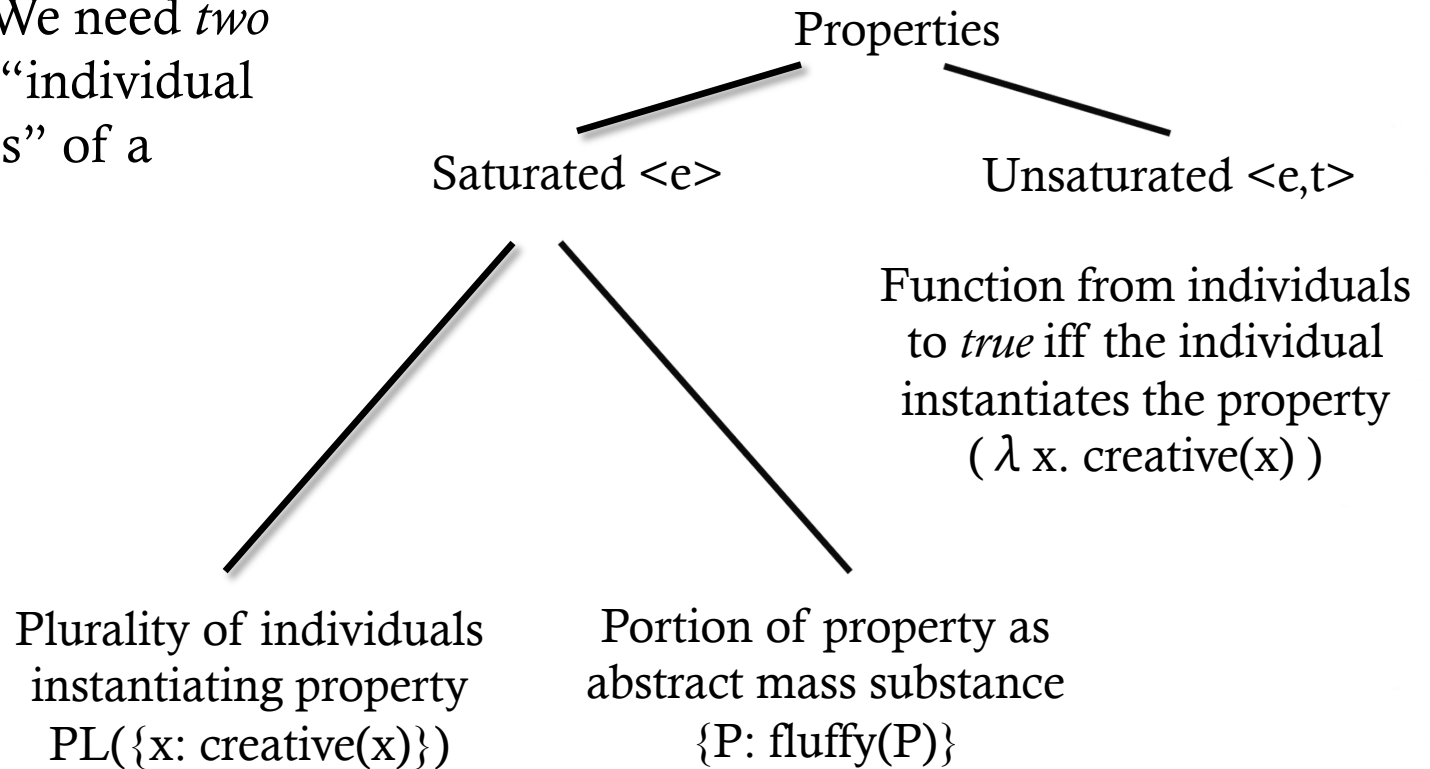
- A plurality of individuals that the predicate maps to *true* in a world/context
- *The creative*: the maximal set of creative people in a world/context
- We need a way to access this set of individuals linguistically
 - Similar to Chierchia 1998

Mass reading

- An abstract mass substance reflecting a **portion** of the property in a world/context
- *The fluffy*: the largest portion of fluffiness in a world/context
- We need a way to access this portion of abstract mass linguistically
 - As in C&T

2 types of individual correlates

- Claim: We need *two* types of “individual correlates” of a property



Semantic analysis

Individuated reading

- *Creative*: a plurality of creative individuals in the context
- *The creative*: maximal plurality of creative individuals in the context (thanks to uniqueness presupposed by *the*)

Mass reading

- *Fluffy*: a portion of fluffiness in the context
- *The fluffy*: maximal portion of fluffiness in the context (thanks to uniqueness presupposed by *the*)

Agreement explained

Individuated reading

- Semantically plural
 - since it's a plurality of individuals, like the plurality Anna+Becky+Cameron
- Thus plural agreement

Mass reading

- Semantically singular
 - Like other mass nouns (e.g. *rice is good*)
- Thus singular agreement

Analysis: Discussion

- Can these 2 “individual correlates” be derived rather than stipulated?
- If an adjective is a function from individuals to truth values, 2 ideas are already inhere:
 - Individuals that the function maps to *true* (underlying the individuated reading?)
 - Criterion by which one decides whether to map a new individual to *true* – whether the individual instantiates some abstract quality (underlying the mass reading?)

Conclusion

Conclusion

- English D+Adj has 2 conceptually, grammatically distinct readings
- D+Adj need not be kind-denoting, though often has that reading
- Each reading of D+Adj may be considered a different type of “individual correlate” of a property – both of which need to be linguistically accessible
 - A set of individuals instantiating the property
 - The property itself, conceptualized as an abstract mass



Thank you!

This project has benefitted enormously from the insights of Beth Levin, Cleo Condoravdi, Chris Potts, Dan Lassiter, Itamar Francez, Andrew Koontz Garboden, Rebekah Baglini, an audience at Stanford, and the SuB reviewers.

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Appendix

- Dixon classes – data
- D+Adj and kinds– surprising facts

Dixon classes (1)

Individuated reading

- *Dimension:* **The tall** are tired of being looked down on: Tim Harrison finds much to deplore in his overview of a heightist society
- *Age:* Designing lighting for **the elderly** requires special consideration

Mass reading

- *Dimension:* Throughout Stephens' career [as a sculptor] there has been a constant concern about how **the small** and **the large** are dependent on each other for form, structure and texture
- *Age:* The illustration is obvious. **The old** is incompatible with the new.

Dixon classes (2)

Individuated reading

- *Value*: **The beautiful** aren't simply judged as smarter and more talented, they are also judged as being better human beings
- *Color*: By the way, poor might be the new black, but **the black** are still the old poor [the ethnicity]

Mass reading

- *Value*: **The good is the beautiful** (Plato)
- *Color*: At the beginning the drawings of **the blue on the white** were still similar to Chinese designs

Dixon classes (3)

Individuated reading

- *Physical*: The obesity rate has doubled since the late 1970s. **The heavy** are getting heavier.
- *Speed*: I live in a world where there is too much to do... where productivity and efficiency are capital, where **the slow** are left behind.
- *Human propensity*: In truth, **the lucky** are often no more deserving than anyone else

Mass reading

- *Physical*: The **very spicy** is extremely nutritious
- *Speed*: Tai Chi teaches us the importance of balancing **the fast** and **the slow**
- *Human propensity*: “A great nation...is very complex and side by side lie the great and the mean, **the generous** and **the selfish**, just as they lie side by side in each man” (R. Feynman)

Surprises – D+Adj and kinds

- Normally only the definite *singular* can denote a kind (*The dog is*/? *The dogs are humanity's best friend*)
- But with D+Adj, a plural DP can apparently denote a kind (*The rich are different*)
- Normally mass nouns must be bare in order to denote a kind (*Rice is good* vs. *The rice is good*)
- But with D+Adj, abstract mass nouns may appear to denote kinds when a determiner is present (*the cute is...*)
- Moral: the definite determiner in D+Adj can refer to a kind even when plural or mass—contrary to expectation. Why?

