Unbinding equatives[1]

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Abstract. While traditional degree semantics posits that comparison constructions operate on scalar dimensions, property equatives–which compare individuals with respect to categorical properties–present a theoretical challenge to this view. I demonstrate that property equatives, despite lacking inherent scalar structure, exhibit parallel structural constraints with degree equatives, suggesting a unified semantic operation underlying both constructions. Based on novel data evidence, I propose a QUD-based semantics for equatives that accounts for both scalar and non-scalar interpretations. This analysis suggests that the scalar interpretation of degree equatives emerges from the interaction between question-based similarity assessment and the ordered nature of gradable predicates, rather than from inherent scalar semantics in the comparison operation itself.

Keywords: equatives, degree semantics, comparison.

1. The problem

One question that remains unanswered in degree semantics concerns the extent to which our understanding of grammatical comparison is constrained by an exclusive focus on scalar comparison. Traditional approaches to comparison constructions, (1), are to at least some extent grounded in degree semantics (Cresswell 1976; von Stechow 1984; Heim 2000; Kennedy 1999) and therefore assume that there is a systematic correspondence between syntactic representation of measurement and measurement-based interpretation. The distribution of degree predicates and their acceptability in comparison constructions can serve as empirical evidence for this connection. Consider the following environments that license degree predicates, (1).

(1) **Degree environments**
  a. *Anna is tall**er** than Bob.*
  b. *Anna is as tall **as** Bob.*
  c. *Anna is the tall**est** student in the class.*

Not only do all instances in (1) license degree predicates, but they also function as standard diagnostics for 'gradability'. Crucially, *et*-predicates are not licensed in these environments, as demonstrated in (2):

(2) **Non-degree environments**
  a. **Anna is thief-**er** than Bob.*
  b. **Anna is as thief **as** Bob.*
  c. **Anna is the thief-**est** student in the class.*

The contrast between (1) and (2) receives a principled explanation under degree semantics. Degree predicates are lexically specified for measurement and allow for the comparison construction to access scalar dimensions like HEIGHT. This is often implemented by positing that they take a degree as an argument (see Cresswell 1976; Heim 1985; Kennedy 1999 and many

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others). This type of theory directly links the felicity of comparison constructions to the semantic structure of their complement. Since *et*-predicates lack access to degree arguments, they cannot access the scale that the comparison operation requires. Consider the equative construction: (3a) is true in a scenario where both individuals have the same height (3b), and false if the second individual is taller than the first (3c).

(3) **Degree equatives**
  a. *Anna ist so groß wie Bob.*
     Anna is SO tall WIE Bob
     'A is as tall as B' ✓ in (3b), ✗ in (3c)
  b. S: A is 180, B is 180
  c. S: A is 180, B is 200

The paraphrase in (4)–though informal and insufficient–captures the intuition underlying analyses in the literature: comparison involves 'measuring' relative scalar dimensions denoted by the degree predicate functioning as the equative's complement.

(4) **A lousy paraphrase**
  $[\![\textit{as tall as}]\!] \approx$ x's height = y's height

However, it is not a novel observation (see e.g. Rett 2013; Morzycki and Anderson 2015; Hohaus and Zimmermann 2021, and see Henkelmann 2006 and Haspelmath et al. 2017 for typological overviews) that several languages do not make a morphological distinction between degree equatives as in (3) and equatives that take *et*-predicates as their complement. (5) is an example from German.

(5) **Property equatives**
  a. *Anna ist so ein Dieb wie Bob.*
     Anna is SUCH a thief WH Bob
     'A is the same kind of thief as Bob' ✓ in (5b), ✗ in (5c)
  b. S: A is a pickpocket and steals from men; B is a pickpocket and steals from men.
  c. S: A is a pickpocket and steals from men, B is a carjacker and steals from old ladies.

With property equatives like (5a), comparison is not based on scalar extents but rather on shared categorical properties. The property equative requires that the two individuals share properties connected to the property denoted by 'thief'. If A and B belong to the same 'subcategory' of thieves, (5a) is true; if the subcategories differ, it is false. A semantics operating on measurement, as in (4), is not obviously maintainable for property equatives. How, then, do we reconcile this with the distributional pattern observed above? Our semantic theory must provide a coherent explanation for why some languages permit *et*-predicates in equative constructions with an interpretation not tied to measurement. This paper presents empirical evidence for the position that, contrary to appearances, the scalar interpretation of equatives is an epiphenomenon derived from the logical structure underlying degree predicates rather than having an inherent scalar meaning themselves. Or, put simply: The existence of property equatives suggests either that (i) equatives are ambiguous between scalar and non-scalar variants, or (ii) equative semantics is not inherently scalar. This paper explores (ii).

1.1. The traditional approach

To address this question, we might initially consider taking the distribution of degree predicates as evidence for a degree-based analysis of equatives. According to the standard approach to comparison constructions, the morphemes associated with comparison function as quantifiers over degrees. Degrees are treated as special semantic and syntactic objects that introduce measurement compositionally as elements of scales. A scale represents all degrees along a specific dimension (e.g., HEIGHT), with the most straightforward implementation ordering these degrees along that dimension. Formally, a scale S is defined as a triple $\langle S, >, A\rangle$ where S denotes a set of degrees, $>$ represents the ordering relation inherent to the scale, and A specifies the dimension being measured. A degree predicate ties a degree in S to the individual in question by denoting a binary relation between degrees and individuals. It incorporates a measure function μ as an inherent component of its meaning, indicating what scale and dimension each predicate lexically associates with:

(6) **Textbook definition of** $[\![\sqrt{tall}]\!]$
$[\![\sqrt{tall}]\!] = \lambda d.\lambda x.\mu\text{HEIGHT}(x) \geq d$

The conventional approach to reconciling semantics and syntax here posits that degrees are base-generated in the argument position of the adjective and belong to the syntactic category Deg (cf. Heim 2000). According to this view, the degree head occupies the specifier position of the AP with the adjective itself as the head of the AP. This assumption provides a foundation for cases where degree operators originate within the AP and subsequently undergo movement to establish the appropriate scope relationships. Under this analysis, degree predicates like *tall* have a lexical entry requiring saturation by a degree argument, which explains why degree predicates–but not *et*-predicates–are licensed in comparison constructions. They are commonly argued to be clausal (e.g. Lechner 2008). Equatives involve two *wh*-clauses, each containing a degree gap, (7).

(7) **Equatives are clausal**
a. *Anna is as d-tall as Bob (is d-tall).*
b. [*as* [2 [*Bob is t2 tall*]] [1 [*Anna is t1 tall*]]]

In this structure, the comparative morpheme *as* takes two arguments: (1) a relative clause containing a degree abstraction created by the movement of *wh d-tall* to the CP edge, and (2) a matrix clause with a degree abstraction created by the movement of *d-tall*. The degree variables in both clauses are co-indexed with their respective traces (t1 and t2), which occupy the degree argument position of the adjective *tall*.

This approach crucially diverges from the paraphrase in (3b) by proposing that equative meaning operates 'independently' from its complement (in the sense that the equative is blind to the lexical meaning of the predicate). However, the reliance on scales remains the functional core, with the degree argument providing the basis for lambda abstraction over degree gaps and thus forming the sets for comparison. Under this approach, comparison is fundamentally a set relation. The equative itself is not sensitive to the specific degree predicate–it only requires access to the scale associated with that predicate. The final step is to define $[\![as]\!]$ as denoting the subset-or-equal relation: the set of degrees associated with the *as*-clause must be a subset of or equal to the set of degrees representing the individual's height in the matrix clause:

(8) **Textbook definition of equatives**
$[\![so]\!] = \lambda D'.\lambda D.D' \subseteq D$

This analysis yields a clear prediction about the nature of comparison. Grammatically, comparison is nothing more than abstracting over degree arguments while depending on the availability of those arguments in the syntactic structure. Given this assumption, our problem becomes evident: property equatives lack a degree argument, yet comparison constructions depend on having one. How can we resolve this absence? How do we account for property equatives that lack scalar structure altogether?

1.2. A note on coercion

Before proceeding, I should address a potential objection. An intuitive solution might be to treat property equatives as instances of coercion, given that gradation is not limited to the syntactic category of adjectives (see Krifka 1989; Hay et al. 1999; Kennedy and Levin 2008, and many others). However, when examining predicates not lexically specified for measurement but capable of receiving a coerced scalar interpretation, there remains consensus that such interpretations still involve gradation–whether inherently specified or not. Consider (9).

(9) **Coerced interpretations of *et*-predicates**
a. CONTEXT: Anna stole a car and Bob stole jewellery. Bob was sentenced to two years in prison and Anna to one month of community service. You think theft is not okay in neither case and you tell me ...
b. *Anna is as much of a thief as Bob.* ✓in (9a)

It is important to note two things about this, however. First, the structure in (9) does contain a degree predicate (*much*). Second, property equatives are fundamentally different in that they do not reference measurement at all. Their interpretation is not scalar. Instead, they operate on categorical classification rather than gradient scalar dimensions. This distinction emerges from several empirical properties that systematically differentiate property equatives from coerced or metalinguistic readings. The most revealing distinction concerns transitivity relations. Degree equatives necessarily exhibit transitivity because they involve measurement along a total order (i.e., a scale). Take (10).

(10) **Transitivity in equatives**
 # Anna is as tall as Bob and Bob is as tall as Cece, but Cece is not as tall as Anna.

Example (10) creates a logical contradiction because height comparisons must follow transitivity. If Anna reaches the same point on the height scale as Bob, and Bob reaches the same point as Cece, then Anna and Cece must necessarily reach the same point. The contradiction arises precisely because degree equatives encode relations between positions on a single, linearly ordered scale. The same goes for coerced interpretations of property denoting predicates when occurring as the equative's complement.

(11) **Transitivity in coerced readings**
 # Anna is as much of a thief as Bob and Bob is as much of a thief as Cece, but Cece is not as much of a thief as Anna.

Property equatives, by contrast, can felicitously violate transitivity.

(12) **No transitivity in property equatives**
A ist so ein Dieb wie B, B ist so ein Dieb wie C, aber C ist nicht so ein Dieb wie A.
'A is the same kind of thief as B, B is the same kind of thief as C, but C is not the same kind of thief as A.'

The felicity of (12) shows that property equatives do not involve positioning on a linear scale. Rather, they express similarity relationships with respect to categorically distinct properties. If property equatives involved coerced scalar measurement (e.g., 'degree of thievishness'), we would expect transitivity to hold. This observation further indicates that property comparison does not require compared individuals to share every thief-related property. If the condition were universal–that is, if the compared individuals had to match on every property pertinent to being a thief–then such comparisons would be semantically infelicitous. Another point in favour is data involving factor phrases (see Dočekal and Wagiel 2018 for discussion of these phrases and their link to scales). Factor phrases are acceptable with degree equatives and comparatives, and data like this is often taken as an argument for why we need degree in the ontology as a way of standardising the arithmetic operation that factor phrases seem to contribute (see e.g. von Stechow 1984, but also Bale 2008).

(13) **Factor phrases with degree predicates**
a. *Anna is twice as tall as Bob.*
b. *Anna is twice as much of a thief as Bob.*

Property equatives can not be modified by factor phrases, (14).

(14) **Anna ist zweimal so ein Dieb wie Bob.*
Anna is twice so a thief wh Bob
Anna is twice the same kind of thief as Bob.

While degree expressions show something very interesting about natural language–namely that some expressions can be sensitive to gradation–equatives show something very interesting, too (in my opinion): that equatives are not only sensitive to gradation.

1.3. This paper

This paper argues for a unified semantic analysis of equative constructions that accounts for both degree equatives and property equatives. Section 2 examines the traditional approach to equatives and identifies its limitations when being extended to property equatives. Section 3 presents empirical evidence that both types of equatives exhibit parallel structural constraints, suggesting a unified semantic operation. Section 4 proposes a QUD-based semantics for equatives that accounts for both scalar and non-scalar interpretations.

2. Expanding scalar semantics

Assuming the degree quantifier analysis correctly captures the meaning of equatives presents a substantial technical challenge. When defining $[\![so]\!]$ without proliferating distinct lexical entries $[\![so_1]\!]$ and $[\![so_2]\!]$, how can we restate it in terms of universal quantification? One approach would be to claim that the crucial requirement is for the arguments of $[\![so]\!]$ to ultimately yield type t, allowing for a version of $[\![so]\!]$ that takes sets of properties as its arguments rather than just sets of degrees. We must acknowledge, however, that degree sets–due to our technical assumptions about degrees–constitute a special category of sets. They differ fundamentally from sets of individuals or properties. Most significantly, degrees are ordered, as each degree set is either a scale or a subset of a scale. This is precisely the feature we wish to avoid for property equatives. The technical challenge, therefore, is twofold: to prevent the ordering from playing an overly significant role in property equatives, and to ensure that a generalised analysis does not depend on having a syntactic degree variable.

2.1. Hohaus and Zimmermann (2021)

In principle, Hohaus and Zimmermann (2021) have proposed a type-flexible equative along these lines: one that composes with degree sets and another that composes with property sets. The common semantic core lies in the equative relation itself. Under this approach, equative comparison functions essentially as an 'every'-like quantifier, with the critical difference being the type of its arguments. The proposal centres on a version of individual denotation with their types lifted to the quantifier level. Their degree equative quantifies over degree sets, following the standard view where degree sets are derived through lambda-abstraction over degree gaps supplied by the degree argument of the degree predicate. The derivation of the property equative does not involve lambda abstraction however; instead, it relies on type-shifted individuals, consistent with the Montague tradition of treating NPs as generalised quantifiers. According to this proposal, the individuals denote the set of their own respective properties, thus yielding property sets. This type-lifting operation takes an individual and returns a function of type $\langle et,t\rangle$. This has long been employed to resolve type mismatches (cf. Partee and Rooth 1983). However, in Hohaus and Zimmermann (2021), there does not seem to be independent motivation for this approach in the equative case–it seems solely to serve the purpose of generating sets containing properties that the individuals possess. Assuming that both Anna and Bob have the property of being thieves, we can posit that the property equative has the lexical entry in (15b), with (15a) showing the degree equative entry for comparison.

(15) **A type flexible equative** adapted from Hohaus and Zimmermann (2021)
a. $[\![so_d]\!] = \lambda D'_{dt}.\lambda D_{dt}.D' \subseteq D$
b. $[\![so_p]\!] = \lambda \mathscr{P}_{ett}.\lambda \mathscr{Q}_{ett}.\mathscr{C}\&\mathscr{Q} \subseteq \mathscr{P}$ to be revised

This analysis puts forward that the set of B's properties must be a subset of the set of A's properties. Here, the counterpart to the degree scale (a set) is the set of properties denoted by the individuals. The formulation in (15b) is excessively strong, as it would require the individuals to share any property. **?** address this by introducing a contextually determined set C to the composition–a standard contextual restriction. This set combines with B's properties to determine which properties are relevant for comparison, as shown in (16).

(16) $[\![so_p]\!] = \lambda \mathscr{C}_{ett}.\lambda \mathscr{P}_{ett}.\lambda \mathscr{Q}_{ett}.\mathscr{C}\&\mathscr{Q} \subseteq \mathscr{P}$

Thus, the property equative involves three sets: the contextual restriction C and the property sets of the two individuals being compared. I would think one could collapse the two lexical entries into a unified one modulo this context set.

2.2. Problems

In what follows, I will show that the polymorphic type strategy for equatives presented above encounters several empirical and theoretical problems. My main point is that the complement in property equatives cannot be integrated into the compositional process merely as an element of the property sets. It would lead us to incorrect truth conditions in certain cases. Consider the semantic interpretation of negated degree equatives, (17).

(17) *Anna ist nicht so groß wie Bob.*
Anna is not SO tall WH Bob
'A is not as tall as B'

When we negate a degree equative as in (17), the negation specifically targets the set relation between the two degree sets. Crucially, degree equatives are relativised to *tall* because degree sets can only ever be generated through lambda-abstraction over the degree argument. The negation operates on the subset relation between these degree sets without directly engaging with the semantic content of *tall* itself. Now consider the parallel negative context with property equatives in (18).

(18) **Truth conditions**
a. *Anna ist nicht so ein Dieb wie Bob.*
Anna is not SO a thief WIE Bob
'A is not the same kind of thief as Bob' ✗ in (18b), ✓ in (18c)
b. SCENARIO: Both Anna and Bob are thieves
c. SCENARIO: Neither Anna nor Bob is a thief

The type-flexible analysis incorrectly predicts that (18) would be true in (19b) where neither individual is a thief, since their property sets would be identical wrt. thief-related properties (i.e., both lacking them). This prediction is empirically falsified–(18) requires that both individuals are thieves and that they belong to different subcategories of thieves.

(19) **Predictions**
a. Both Anna and Bob are thieves $\rightsquigarrow$ predicted to be false
b. Neither Anna nor Bob is a thief $\rightsquigarrow$ predicted to be true

This misalignment cannot be solved through simple technical adjustments. Adding a presupposition, for instance, that both individuals instantiate the nominal property would not resolve the fundamental issue: the subset relation in the proposed analysis fails to connect thief to the relevant subcategories in the compositional process. Conversely, attempting to lift thief to a higher type that could take properties as arguments (paralleling *tall*) would create additional compositional difficulties, and there is no empirical evidence to do so. The particular nature of this problem is that in the type-flexible analysis, $[\![\textit{thief}]\!]$ makes no real semantic contribution to the comparison operation. A negated equative does not state that Anna lacks tallness or is not a thief; rather, the negation specifically targets the subcategory belongings.

(20) a. *Anna ist nicht so groß wie Bob.*
'Anna is not as tall as Bob'
i.e., they are not the same relative to $[\![\textit{d-tall}]\!]$
b. *Anna ist nicht so ein Dieb wie Bob*
'Anna is not the same kind of thief as Bob'
i.e., they do not belong to the same subcategory relative to $[\![\textit{thief}]\!]$

In the degree case, an analysis based on lambda abstraction over a degree gap correctly predicts this pattern. The semantic parallel to the *every/some* contrast in individual quantification is precisely what we expect if the degree quantifier analysis is correct. A principal motivation for such an analysis is the expectation of finding analogous quantificational structures across semantic domains, including degrees. If we formalise negation as targeting the subset relation, we derive at (21).

(21) $[\![not\ as_d]\!] = \lambda D'.\lambda D.D' \not\subseteq D$

This generates correct predictions for degree equatives: it requires the existence of at least one degree to which Bob is tall but Anna is not. This aligns with how universal quantification functions, and combined with the monotonicity conditions standardly imposed on degree predicates, we derive the inference that Bob may be taller than Anna when an equative is negated–a direct consequence of the semantics assigned to the equative morpheme. Examining this reveals the crucial distinction under a generalisation of the scalar approach: the degree equative operates on degrees provided by *tall* without directly operating on *tall* itself. This highlights the fundamental difference between operating on sets created through lambda abstraction over a predicate's argument (the degree case) and sets created through type-shifting operations (the property case).

When positing a polymorphic equative, unlike degree equatives, property equatives are not 'blind' to their predicates–they necessarily operate on all subcategories relative to *thief* as well as on *thief* itself, because they have the same status. In other words, the complement of the equative would end up doing nothing.

A second problem with the type-flexible approach concerns unattested synonymy. Since both equative types are evaluated relative to their basis of comparison, type-shifting approaches face a significant challenge: all properties in the type-shifted sets have the same status. These sets depend entirely on (i) the individuals being compared and (ii) the contextual parameters–but critically, they do not depend on the equative's complement. This makes the prediction that any property from these sets could surface in the equative construction. Consider the following, (22).

(22) a. Contextually relevant properties:
$\lambda x.x$ is a thief, $\lambda x.x$ is a pirate
b. Bob's properties:
$\lambda x.x$ is a thief, $\lambda x.x$ is a pirate
c. Anna's properties:
$\lambda x.x$ is a thief, $\lambda x.x$ is a pirate

The type-flexible approach incorrectly predicts that (23a) and (23b) should be synonymous in this context.

(23) **Predicted to be synonyms**
a. *Anna ist so ein Dieb wie Bob.*
'Anna is the same kind of thief as Bob'
b. *Anna ist so ein Pirat wie Bob.*
'Anna is the same kind of pirate as Bob'

In other words, within Hohaus and Zimmermann (2021) system, the 'subcategory' has the same semantic status as the predicate occurring in the equative. Applying the same principle to degree equatives would ridiculously conflate *tall* and *d-tall* as members of the same set.

2.3. Properties are insufficient

Property equatives, unlike their degree counterparts, are not restricted to a single dimension of comparison. Two individual thieves can be similar with respect to their subcategory, their motivation, or something like their target demographic. The crucial observation that I want to put forward is that precise identification of the compared property is unnecessary; rather, knowing which question structures the comparison is sufficient for interpretation, (24).

(24) a. CONTEXT: A detective is about to be hired by the PI, who runs tests before hiring. He assigns the new guy a fake case (find the thieves Anna and Bob) and gives him one hint.

b. [*Wenn du dir die Motivation anguckst*], *ist Anna so ein Dieb wie Bob*.
If you you.DAT the motivation look-at is Anna SO a thief WIE Bob
'If you look at their motivation, Anna is the same kind of thief as Bob.

This suggests that property equative comparisons fundamentally depend on contextually determined questions rather than simple property sets. (25) provides evidence that degree equatives exhibit similar context-sensitivity. In different contexts, different heights can satisfy similarity conditions–that is, different granularity levels can render the degree equative felicitous. I would like to propose that the levels of granularity that the degree equative seems to be sensitive to in certain utterance contexts, has the same function as the contextual questions and their possible values for the property equative.

(25) a. CONTEXT: Pairing up people to dance: Everybody is 1,60 m, except for Anna, whose height is 1,90 m. The teacher knows that Bob with a height of 1,80 m is very likely to join the class, but he rather hopes for Cece to join, whose height is 1,90 m also.

b. *Für den Fall*, *dass Cece nicht kommt*, *ist Bob so groß wie Anna*, *für den Fall*,
For the case that Cece not comes is B so tall wh Anna for the case
dass sie kommt, *ist Bob nicht so groß wie A*.
that she comes is Bob not so tall wh Anna.
'In case Cece joins the class, Bob is as tall as Anna, in case she doesn't, Bob is not as tall as Anna'

This context manipulation shows that the 'evaluation' of degree equatives, like property equatives, is constrained by (potentially implicit) questions that determine relevant granularities.

2.4. Interim summary

This section has argued against the type-flexible approach to equatives proposed by Hohaus and Zimmermann (2021), which attempts to unify degree and property equatives through polymorphic typing. Three fundamental problems emerge. First, the the negation problem: The analysis generates incorrect truth conditions for negated property equatives, incorrectly predicting that property equatives would be true when neither individual is a thief. This shows that the complement (thief) must make a genuine semantic contribution. Second, the synonymy problem: The approach predicts unattested synonymy between equatives with different complements but identical contextually relevant properties. And third, the insufficiency of property sets: Property equatives allow multiple dimensions of comparison and are structured by contextually determined questions rather than simple property sets, paralleling how degree equatives exhibit context-sensitivity through granularity levels. My overall point was to show that property equatives cannot be treated merely as elements of property sets derived through type-shifting operations, but require an approach that recognises their complements' semantic contribution and sensitivity to contextual question structures.

3. A non-scalar hypothesis

In this next section, I explore a semantics for equatives that does not rely on syntactically available degree arguments. I argue that equative meaning cannot depend on measurement representations if we want to handle property cases. The scales that some natural language predicates possess cannot serve as the underlying structure for predicates that lack them–equatives cannot be sensitive only to scales. I present empirical evidence for two central claims: (i) a unified analysis of equatives remains theoretically desirable despite apparent type differences, since both degree and property equatives exhibit the same structural constraints traditionally associated with degree semantics; and (ii) equatives with different complement types can be analysed through implicit or explicit Questions under Discussion (QUDs).

3.1. Structural similarities

The aforementioned problems indicate that a unified analysis of comparison requires a more fundamental rethinking than mere type-flexible. I will now show that both degree equatives and property equatives are subject to the same linguistic constraints–specifically those that are often taken to provide a window into the way degrees work. If this was simply lexical ambiguity, we wouldn't expect them to pattern together semantically and syntactically.

3.1.1. Cross-dimensional comparison

The first point concerns cross-dimensional comparison which serve as a standard argument for why comparison constructions must operate on scales to represent different properties in a comparable way. Under this view, degrees serve as a representation that is blind to the actual lexical meaning, (26).

(26) *This guy is taller than the desk is wide.*

Property equatives allow for the same. In (27), comparison is not based on any measurable dimension.

(27) **Cross-dimensional comparison in property equatives**

a. *Anna hat so einen Dieb gesehen wie Bob gefangen hat.*
Anna has SO a thief seen WH Bob caught has
'A saw a thief like B caught' ✓ in (27b), ✗ in (27c)

b. SCENARIO: There are two thieves, Cece and Dora, both of them are pickpockets. Anna saw Cece running around on the street and Bob caught Dora red-handed.

c. SCENARIO: There are two thieves, Cece and Dora, Cece is a pickpocket and Dora is a carjacker. Anna saw Cece running around on the street and Bob caught Dora red-handed.

(27) is more support for the intuition I put forward that there seems to be an abstraction away from the complement, and that equatives with complements of any type select for 'subcategories' relative to their complement. The question is how we can find out what these categories are.

3.1.2. Negation in the standard clause

My second data point shows how negation affects grammaticality in equatives. degree equatives are negative islands in their standard clause. This behaviour is often traced back to a degree-specific syntactic constraint according to which abstraction over degree variables is not possible across negation (cf. Heim 2000). But property equatives underlie the same constraint–even though there is no degree variable.

(28) **Anna ist so ein Dieb wie Bob nicht ist.*
Anna is SO a thief WIE Bob not is
lit: 'Anna is the same kind of thief that Bob isn't.'

(29) **Anna ist so groß wie Bob nicht ist.*
Anna is SO tall WIE Bob not is
lit: 'Anna is as tall as Bob is not'

Penka (2011) observes that degree equatives, nonetheless, allow for negative indefinites in the standard. I observe that property equatives do the same thing, and that the resulting readings allow for inferences in (30c) and (31c).

(30) a. *Anna ist so ein Dieb wie kein anderer.*
Anna is SO a thief WIE no other
'Anna is the same kind of thief as no one else'
b. ⇝'Anna is the only thief of her subcategory'

(31) a. *Anna ist so groß wie kein anderer.*
Anna is SO tall WIE no other
lit: 'Anna is as tall as no one else'
b. ⇝ 'Anna is the only one of this height'

I take this as evidence for the assumption that the specific 'subcategories' by means of which we compare can be singled out. The question is, of course, whether the individuals must share all of their properties. I argue no, based on their behaviour with the modifier *genau* ('exactly'). Both degree equatives and property equatives can be modified by *genau*, resulting in an intuition for the property equative that the individuals must share 'more' properties, (32).

(32) a. CONTEXT: Anna: steals watches, motivated by greed, medium-high level of violence. Bob: steals watches, motivated by boredom, low level of violence
b. CONTEXT: Anna: steals watches, motivated by greed, medium-high level of violence. Bob: steals watches, motivated by greed, medium-high level of violence.

(33) a. *Anna ist so ein Dieb wie Bob.*
Anna is SO a thief WIE Bob
Anna is the same kind of thief as Bob. ✓ in (32a), ✓ in (32b)

b. *Anna ist genau so ein Dieb wie Bob.*
Anna is exactly SO a thief WIE Bob
Anna is exactly the same kind of thief as Bob. ? in (32a), ✓ in (32b)

But there seems to be one restriction: *genau* cannot be added in (34) and (35), pointing me towards hypothesising that *so* is of existential nature and *genau so* is of universal nature.

(34) **Anna ist genau so ein Dieb wie kein anderer.*
Anna is exactly SO a thief WIE no other
'Anna is the exact same kind of thief as no one else'

(35) **Anna ist genau so groß wie kein anderer.*
Anna is exactlySO tall WIE no other
lit: 'Anna is as tall as no one else'

Up to this point, we have not only shown that a uniform hypothesis for both types of equatives is degree equatives, we have also shown that the exact same manipulations that affect grammaticality in the degree case (and interestingly those that are usually taken to be indicative of the properties connected to degrees and their inherent ordering) are likewise doing the same in the property case.

3.2. Generalising from the property case

Having established that property equatives compare relative to contextual questions, that property equatives and degree equatives pattern together grammatically, the next question to address is whether there is a way of generalising our observations from PE to DE. I propose this can be done as follows: contextual questions (along the lines of Roberts' 1996 questions under discussion) define what is being compared. This way, a thief's type, their motivation, or their level of violence acts as a salient Q which I take to be part of a context set, relative to the equative's complement. Qs are of type $\langle et, t\rangle$.

(36) $\mathscr{C}_{thief} = \{\text{TYPE}_{thief}, \text{MOTIVATION}_{thief}, \text{LEVEL OF VIOLENCE}_{thief}, \ldots\}$

Qs can now induce a partition onto the domain of individuals and the equative requires two individuals to fall into the same partition cell wrt. at least one Q, i.e. have to be similar, $\sim_Q$, wrt. at least one Q, (37).

(37) $[\![so\ \alpha_Q\ wie]\!] \approx$ for at least one Q in $\mathscr{C}$, $x \sim_Q y$

For degree equatives, the entry is the same. Because salient Qs are determined wrt. the complement, Qs differ in this case. The Qs cover different granularity levels, matching our observation before.

(38) $\mathscr{C}_{tall} = \{\text{FINE}_{tall}, \text{MEDIUM}_{tall}, \text{COARSE}_{tall}, \text{CHUNK}_{tall}, \ldots\}$

An expansion is to assume that *genau*-modified equatives act as the universal counterpart, (39). *Genau* forces us to look at every salient Q. This way, our intuition that in the property case, two individuals need to share 'more properties' is covered. And with degree equatives, we are forced to look at more granularity levels.

(39) $[\![genau\ so\ \alpha_Q\ wie]\!] \approx$ for all Q in $\mathscr{C}$, $x \sim_Q y$

While this analysis could certainly be more refined, I believe the idea is something interesting: this analysis suggests that comparison more generally might be understood as a process of contextual question selection rather than simple scalar measurement. Even in paradigmatically degree-based domains like height, what we're really comparing are answers to contextual questions about granularity levels–whether individuals fall into the same 'coarse', 'medium', or 'fine-grained' height categories.

4. Conclusion

Based on an old data pattern, we initially asked ourselves whether we could simply treat the property equative in the same way as the degree equative, for the latter, we do have an analysis. We argued no, and provided evidence for the position that the equative meaning needs to be detached from its inherent reliance on scales. We have furthermore shown that still, degree equatives and property equative should be treated uniformly, and that they make reference to implicit or explicit QUD–independence of the semantic type of their argument. We have shown a preliminary semantics in order to address this. These points strongly point to the hypothesis that does not view equative's meanings as scalar. Shared morphological material in other constructions could serve as a starting point to see whether we find e.g. property comparatives or other construals that we usually call degree expressions. One could frame my overarching follow-up question like this: what else is there to learn about degree expressions when we look at them outside of the 'standard' syntactic environment where they co-occur with gradable predicates?

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