ON QUALIFICATION

Zoltán Gendler Szabó
zoltan.szabo@cornell.edu

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0. Introduction

As we all know, someone might be good *qua* cobbler without being good.[1] Still, it would be a mistake to deny that in saying that someone is good *qua* cobbler one predicates some sort of goodness of a person. This goodness, however, is not goodness *simpliciter*, only – to borrow G. E. Anscombe's intriguing phrase – goodness *under a description*.[2] The question is how to understand predication under a description in semantic terms.

It would be unfortunate if we had to conduct such an investigation by focusing on a semi-technical term borrowed from Latin. If *qua* is nothing but a piece of philosophical jargon, ordinary intuitions – the data of semantic theorizing – are more or less irrelevant in assessing its interpretation. Fortunately, we do have an ordinary English particle serving in some of its occurrences much the same role that *qua* does: instead of saying that Socrates is good *qua* cobbler, we can say that he is good *as* a cobbler. My aim in this paper is to outline a theory about *as*-phrases in the hope that it can shed some light on metaphysical debates where such expressions are explicitly or tacitly employed.[3]

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[1] Cf. Aristotle, *On Interpretation*, 20 b35-7 and *Sophistical Refutations* 177 b15. The fallacy of inferring an unqualified claim from a qualified one is mentioned by Aristotle in *Sophistical Refutations*, 167 a7-9. In mediaeval logic the fallacy was called *secundum quid ad simpliciter* and was widely discussed. For a thorough survey of ancient and mediaeval views on *qua*, see Bäck (1996). As far as I know, the view presented in this paper differs significantly from all the medieval ones.

[2] Anscombe (1957): 11. Here Anscombe mentions that someone may know what he is doing under some description but not under others. This could be so because of the intensionality of 'know'. In Anscombe (1979) she makes it perfectly clear that many extensional predicates may apply to what someone is doing under one description but not under another.

[3] 'As' is ambiguous and only one of its many meanings is under consideration here. The 'as' in 'He smiled as she turned around' or in 'She is as tall as he is' means something different than the 'as' in 'Socrates is good as a cobbler.' There are other cases where it is less clear whether 'as' should be interpreted as the qualifying particle. For example, I will argue below that the 'as' in 'I regard him as honorable' *is* a qualifying particle.

It might be a good idea to have a concrete example on the table that does not involve problematic adjectives like 'good'.[4] Imagine that John is a judge and earns $50,000 a year in this occupation. In his spare time he also cleans the Palace of Justice for an additional $10,000. Under these circumstances (1) is true and (2) is false, so the former cannot entail the latter.[5] By contrast, (3) is entailed by (1). These facts require a semantic explanation.

(1)   John as a judge earns (exactly) $50,000.
(2)   John earns (exactly) $50,000.
(3)   John is a judge.

I will call a sentence of the surface form '*a* as *F* (is) *G*' a qua-*sentence*, whose *qualifying clause* is '*a* (is) *F*' and whose *qualified clause* is '*a* (is) *G*'. As the example shows, at least some *qua*-sentences fail to entail their qualified clauses. By contrast, they always entail their qualifying clause.[6]

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[4] The example is from Landman (1989).

[5] Some feel a vague unease about the claim that (2) would be false in this situation. There is no question that (2) in its most natural interpretation is false; nonetheless, there might be a true reading as well. Suppose we are discussing how much various graduates of Yale Law School earn. I might say then 'John earns exactly $50,000 – but of course, he has a night job too.' Perhaps the 'but' indicates retraction, but perhaps it indicates mere contrast. I think the theory presented in section 6 will shed light on these matters as well. I thank Tamar Szabó Gendler for the example.

[6] Here is an apparent counterexample to this generalization. Even if Branagh as Henry V was excellent, it does not seem to follow that Branagh *was* Henry V. Or does it? Suppose you sincerely utter 'Branagh as Henry V was excellent' in reporting your experience at the theatre last night and suppose your utterance is met with a puzzled query: 'Was Branagh really performing last night?' You would presumably not hesitate to respond with a sincere utterance of 'Yes, Branagh was Henry V.' What gives us a pause in accepting the inference from 'Branagh as Henry V was excellent' to 'Branagh was Henry V' is that the conclusion appears to be an identity claim and *that* identity claim is false. I think we are misled here by our folk-semantics: 'Branagh was Henry V' does not have to be an identity claim. After all, unlike 'Branagh was Henry V', 'Branagh was identical to Henry V' is *never* uttered sincerely by people without strange views on personal identity. The most plausible explanation of the difference is that the former sentence has a reading the latter lacks. And if this is so, nothing should stop us from accepting that 'Branagh as Henry V was excellent' entails the relevant reading of 'Branagh was Henry V'. Not all putative counterexamples can be dismissed so easily. Suppose Johnny is a 12-year-old boy from Texas who committed murder. Given Texas laws, 'Johnny is prosecuted as an adult' could then be true even though Texas laws cannot make 'Johnny is an adult' true. I will have to set this case aside with two comments. (I omit a third about Texas's laws.) First, the *as*-phrase here is in a post-verbal position and when it appears in the appositive position, the sentence does entail its qualifying clause: 'Johnny as an adult is prosecuted' could only be true if Johnny is in fact an adult. Second, a good paraphrase for 'Johnny is prosecuted as an adult' is 'Johnny is prosecuted *as if he were* an adult.' Such a subjunctive paraphrase is normally not available for simple *qua*-sentences: if John earns $50,000 as a judge then it is not true that he earns $50,000 as if he were a judge. These two points suggest that despite appearances 'Johnny is prosecuted as an adult' has a very different logical form from (1).

The plan of the paper is as follows. I will begin by motivating the project with a discussion of certain arguments for non-identity. I hope to make it plausible that the evaluation of these arguments would benefit from a better grasp of the semantics of *as*-phrases. In sections 2 and 3, I argue against two views about *as*-phrases in the semantic literature: the proposal that they function as term-restrictors and the proposal that they saturate hidden argument places in the qualified predicate. In sections 4 and 5, I lay the grounds for my own proposal by first arguing that qualification via *as*-phrases is an instance of adjunct predication and then outlining the background theory for a unified treatment of all adjunct predication. In section 6, I present the details of the semantics, and in section 7, I discuss some of its virtues and possible generalizations. In the final section, I briefly return to the metaphysical arguments that motivate the semantic project.

1. Cheap differences

Saul (1997) notes that certain simple sentences are apparently subject to an odd sort of substitution failure. A good example would be (4), which seems to be true (in the Superman fiction) but would be false if we substituted 'Clark Kent' for 'Superman':[7]

(4)   Superman leaps over tall buildings but Clark Kent does not.

It is not entirely clear what to think of this intuition. Saul takes it for granted that it must be incorrect: after all, in (4) a predicate and its negation are ascribed to one and the same individual. Our mistaken judgment about the truth-conditions of (4) must then be explained pragmatically.[8] Others have taken issue with this assumption, claiming that in the right context (4) can actually express a truth, either because proper names can shift

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[7] The example is a variation of an example from Saul (1999), which is a variation on an example from Saul (1997). For the sake of exposition, I will sometimes neglect the fact that (4) is only true in a fiction and write as if it was literally true. Nothing hangs on this.

[8] This is offered as indirect support for neo-Russellian theories of belief attributions, such as Salmon (1986) and Soames (1988). Those who reject the Salmon/Soames view because of its unintuitive consequences regarding substitution in belief attributions must explain why it is acceptable to explain away pragmatically similar intuitions in the case of simple sentences.

their reference in an unexpected way, or because the logical form of (4) is significantly more complex than Saul assumes it to be.[9]

Like most debates concerning the borderline between semantics and pragmatics, this one is rather hard to adjudicate. It is not immediately clear whether we are better off keeping the semantics simple and giving up on some of the apparent data, or by taking the appearances seriously and complicating our semantic theory. Nonetheless there is something that could move us beyond gridlock: (4′) is true and it is a reasonable paraphrase of what one would typically wish to *convey* in asserting (4):[10]

(4′)   Clark Kent as a superhero leaps over tall buildings but Clark Kent as a reporter for the *Daily Planet* does not.

Then the disagreement boils down to the question whether in certain contexts (4) can semantically express or merely pragmatically imply the proposition expressed in ordinary contexts by (4′). This seems to me to be a step in the right direction. But in order to make this step, we would need to know what exactly (4′) is supposed to mean and how the qualifying *as*-phrases contribute to the proposition it expresses.

One might wonder whether there is a different paraphrase for what the speaker might wish to convey in uttering (4), one that does not involve *as*-phrases. A natural candidate is (4″):

(4″)   Clark Kent, when he is a superhero, leaps over tall buildings but Clark Kent, when he is a reporter for the *Daily Planet*, does not.

Unfortunately, this is not adequate. Clark Kent is a reporter even when he doesn't act like it. At times when he leaps over tall buildings wearing his famous cape, it is still true of him that he is a reporter for the *Daily Planet.* Consequently, unlike (4′), (4″) is false. (4‴) is a fine paraphrase for (4′), but it is of no use in bypassing *as*-phrases:

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[9] For the former view cf. Moore (1999, 2000), for the latter cf. Forbes (1997, 1999). Note that although Forbes' 1997 proposal can deal with Saul's original examples, it cannot handle (4). This is rectified in the 1999 paper.

[10] In Braun and Saul (2002), the authors argue that we don't have to assume that (4) can be used to convey a truth to explain our faulty intuitions about it. We *can* go wrong in our intuitions for reasons other than

(4‴)   Clark Kent, when he acts as a superhero, leaps over tall buildings but Clark Kent, when he acts as a reporter for the *Daily Planet*, does not.

In the end, I doubt that there is a simple and informative way to paraphrase away the *as*-phrases from (4′). (Replacing 'as a superhero' with 'in his superhero role', 'under the aspect *superhero*' or 'under the description *superhero*' is surely not illuminative.) Qualification appears to be a *sui generis* semantic device.

Apparent substitution failures in simple sentences bring out a general problem in thinking about sameness and difference. Arguing for nonidentity should be a simple matter. To prove that something is distinct from something else all we need is a *bona fide* predicate that is true of one but not the other. Then we can apply Leibniz's Law, and the desired conclusion follows. The trouble is that despite its simplicity, in some cases the strategy fails to convince everyone. Consider the following claims:[11]

(5)   Water is often dirty, but H_2O is never dirty.
(6)   The statue is made of copper, but the copper isn't made of anything.
(7)   The merchant did the selling, but not the buying.

To the extent that we find these claims compelling, we have good reason to think that water and H_2O are not identical, that the statue and the copper it is made of are distinct, and that the selling and the buying (of the very same thing at the very same time and place) are different events. Call these *simple* arguments for nonidentity. For some, these simple arguments seem sufficient to settle the relevant metaphysical issues. For others, they seem a bit too simple to do that.

Famous arguments for nonidentity − Descartes' line that the mind and the body are distinct because the mind but not the body can conceivably exist without the body, Gibbard's argument that a statue and its matter are not the same because the matter could survive the smashing of the statue but the statue could not, Chalmers' claim that our conscious mental states cannot be identified with any of our physical states because a

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mixing up semantics and pragmatics. While I don't want to deny this, it is nonetheless quite plausible that in the right context we can convey (4′) by uttering (4).

zombie could have all our physical states without being conscious – employ predicates that are modal, psychological, or both. The immediate objection to these arguments has been that the predicates they employ are not *bona fide*, that they create opacity in their argument position. But in saying of something that it is often dirty, that it is made of copper, or that the merchant did it we do not seem to be making modal or psychological claims. The first line of defense against the famous arguments is useless against the simple ones.

Those who wish to defend an identity claim in the face of a simple argument for nonidentity tend to follow two kinds of paths. Some use the pragmatic strategy: they deny the truth of the premise and offer a variety of considerations to explain why we are under the illusion that it is true. Others go the semantic way: they claim to detect reference shifts or assign unexpected logical forms. Again, there is something the parties can agree on: $(5')$ – $(7')$ are rather good (albeit a bit awkward) paraphrases for what someone asserting (5) – (7) may wish to convey:

(5′)   Water is often dirty but H_2O *as such* is never dirty.
(6′)   The statue is made of copper but the copper *as such* isn't made of anything.
(7′)   The merchant did the selling but not the buying *as such*.

Unlike $(4')$, $(5')$ – $(7')$ are not obviously true. Still, I suspect many would agree that they are true. It they are, the question whether the above simple arguments successfully demonstrate non-identities boils down to the question whether (5) – (7) can semantically express or merely pragmatically imply $(5')$ – $(7')$, respectively.

The project of assessing simple nonidentity arguments through a study of *as*-phrases has three components. The first is to figure out what a sentence containing an *as*-phrase says, the second is to determine whether the corresponding sentence without the *as*-phrase can say the same thing in the right sort of context, and the third is to apply this general theory to particular cases. In this paper I will concentrate on the first component. But before I begin, a few words are in order about a concern about the second.

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[11] Example (5) is motivated by the discussion in Stanley (2001). Examples like (6) abound in Fine (ms.). (7) is part of the semantic folklore – I am uncertain of its origin.

The concern is that we simply lack a clear example when the content of a qualifying *as*-phrase enters into a proposition expressed by an unqualified sentence. *I* think (4) – (7) are all such examples. But it would be nice to have a less controversial case. I hope the following will do the job. Consider a situation where a number of workers are renovating Bill's house.[12] Some do the electrical work, others the plumbing. As it happens, the ones doing the electrical work all like each other and hate the ones doing the plumbing. Unknown to Bill all the electricians working on his house are also plumbers and the plumbers electricians. Nonetheless, it seems intuitively correct to say that in this context Bill's sincere utterance of (8) is true:

(8)   Every electrician hates every plumber.

If so, the domains of quantification associated with the two quantifying phrases must be appropriately restricted. If we try to make the contextual restriction explicit by adding relative clauses, the most obvious candidate would be something like (8′):

(8′)   Every electrician who works on Bill's house as an electrician hates every plumber who works on Bill's house as a plumber.

It would be hard to deny that (8′) expresses what (8) does in the context specified without denying the original intuition that (8) can express a true proposition in that context. And since I believe *that* intuition is in fairly good shape, I regard (8) as a reasonably clear proof that some sentences in some contexts say what we would normally express by adding appropriate *as*-phrases to them.[13] The moral is that there might be viable reply to simple arguments for non-identity along the lines suggested above.

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[12] The example is from Reimer (1998). She uses it for a different but related purpose.

[13] I am well aware that there are views according to which quantificational sentences don't express anything truth-evaluable, or if they do, they are to be interpreted as quantifying over absolutely everything. For some critical remarks regarding such views, see Stanley and Szabó (2000) and Stanley (2001).

2. A false start: modification

It is natural to think that appositive *as*-phrases are modifiers: expressions whose semantic function is to map expressions of a certain semantic category onto expressions of the same category. Fred Landman has proposed a semantic theory along these lines. He claims that when we say that John as a judge earns $50,000 we attribute the property of making $50,000 not to John as such, but to John under his judge aspect. Here is the theory, in a nutshell.[14] Landman follows Montague and construes the name 'John' as a generalized quantifier whose semantic value is the set of properties John has. Predication expresses set membership: John is *P* just in case *P* is among the properties that comprise the semantic value of 'John'. Landman's idea is that the semantic function of 'as a judge' is to map the set of properties John has onto another set of properties *S*. Landman gives us the following constraints on *S*:

(9)   a. John as a judge is John.
                i.e. the property of being identical to John is a member of *S*
        b. John as a judge is a judge.
                i.e. the property of being a judge is a member of *S*
        c. If John as a judge is *P* and John as a judge is *Q* then John as a judge is *P* and *Q*.
                i.e. *S* is closed under conjunction
        d. If John as a judge is *P* and *P* implies *Q* then John as a judge is *Q*.
                i.e. *S* is closed under implication
        e. It is not the case that John as a judge is both *P* and not-*P*.
                i.e. *S* is consistent
        f. John as a judge is either *P* or not-*P*.
                i.e. *S* is complete
        g. If John as a judge is *P* then John is a judge.
                i.e. if John is not a judge then *S* is empty

Constraints (9c-f) guarantee that 'John as a judge' is a proper ultrafilter on the set of all properties.[15] The sentence, 'John as a judge is corrupt' is true just in case being corrupt is

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[14] Cf. Landman (1989).
[15] Suppose the members of the set *S* form a Boolean algebra. (A Boolean algebra is a set closed with respect to the Boolean operations *join* ($\cup$), *meet* ($\cap$) and *complementation* ($-$). In the case of the set of properties these operations are property-disjunction, property-conjunction, and property-negation.) A filter in *S* is a subset of *S* closed under *meet*. A filter *F* on *S* is proper iff there is no $a \in S$ such that $a \in F$ and $-a \in F$. A filter *F* on *S* is an ultrafilter iff for every $a \in S$, $a \in F$ or $-a \in F$.

among the properties that comprise the semantic value of 'John as a judge', i.e. intuitively just in case it is one of the properties John has under his judge aspect.[16]

There is a glitch in the proposal as stated: any one of (9a), (9b), or (9f) entails that John is P for some predicate P. But then (9g) entails that John is a judge; an unwelcome result. Plausible as they might sound, the claims that John as a judge is John, that John as a judge is a judge, and instances of the schema John as a judge is either P or not-P are not true in virtue of logical form. In fact, if John is not a judge, they must be either false or without truth-value.[17] A more careful way of presenting Landman's theory would involve the following weaker constraints:

(9′) a. John as a judge is either nothing or John.
      b. John as a judge is either nothing or a judge.
      f. John as a judge is either nothing or P or not P.

It is worth emphasizing that Landman's theory does not claim that besides John there is also a distinct object, John as a judge. In fact, if John is a judge the theory tells us that John is *identical to* John as a judge. At the same time, the theory also tells us that the semantic values of 'John' and 'John as a judge' are distinct if, say, John earns a total of $60,000 but earns only $50,000 as a judge. There is no conflict here because 'John' and 'John as a judge' are not supposed to *refer* to their semantic values; they both refer to John. The semantic value of 'John' can be characterized solely in terms of its referent: it is the set of properties the referent has. The semantic value of 'John as a judge' cannot be so characterized: beside the referent we need to mention the semantic values of 'as' and 'a judge' as well.

There are two features of this theory that I find unappealing. The first is its stipulative character. The semantic intuitions under (9) are not captured via the compositional semantics at all: they have to be added as brute meaning postulates.[18] We certainly don't get an interesting explanation as to why 'John as a judge is a judge' or 'It

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[16] Landman follows Thomason (1980) in identifying properties with propositional functions, and in treating propositions as primitives.

[17] The problem was noticed in Fox (2000): 110.

[18] To make the semantics compositional, Landman would have to say that the semantic value of 'as' is a function that maps a property onto a function from a set of properties to a set of properties. The constraints under (9) are constraints on what sort of function this semantic value is.

is not the case that John as a judge is both corrupt and not corrupt' are true. These facts do not follow from the logical forms of these sentences alone: at best they have the status of sentences like 'All bachelors are unmarried' or 'A fortnight is two weeks.' This is the *explanatory problem* with Landman's proposal. The second unappealing feature of the view is that it postulates incongruent syntactic and semantic categories. Semantically 'John as a judge' is a generalized quantifier. All other expressions of this semantic type are syntactically DP's: proper names, demonstratives, possessive phrases or quantifying phrases.[19] But 'John as a judge' cannot be a DP: it doesn't coordinate with other DP's, it cannot form a regular possessive, and it is out as an answer to a *wh*-question:

(10)   * John as a judge and Bill are corrupt.
(11)   * John as a judge's reputation is excellent.
(12)   Who is the commencement speaker this year? – * John as a judge.

This is the *syntactic problem* with the proposal.

These two difficulties pull the theorist in opposite directions. Suppose we were to focus on the explanatory problem. A natural reaction to this difficulty would be to bite the ontological bullet and accept that 'John as a judge' is a term that refers to a peculiar object distinct from John.[20] In return, we gain the ability to explain why the properties possessed by John as a judge form a proper ultrafilter. If John as a judge is an object of some sort, it is clear that if it is P and it is also Q, it must be P and Q, that if it is P it cannot be not-P, and so on. On the other hand, going this way makes the data under (10) – (12) even more of a mystery. If 'John as a judge' refers to an object just like 'John' does, why can't we say that this object and Bill are both corrupt, or that this object's reputation is excellent? If 'John as a judge' in fact refers to the commencement speaker, why can't we answer the question 'Who is the commencement speaker' by saying 'John as a judge'?

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[19] The category of DP's (determiner phrases) used to be called 'NP' before the advent of X′ theory. The old terminology is misleading because the noun is not the head of such phrases.

[20] Fine (1982) countenances such entities and dubs them *qua*-objects. A *qua* object, *x* qua *F*, exists at a given time (world-time) just in case *x* exists at that time (world-time) and has *F*. For any property *F*, *x* qua *F* is distinct from *x*, and for any objects *x*, *y* and properties *F*, *G*, *x* qua *F* is identical to *y* qua *G* just in case *x* is identical to *y* and *F* is identical to *G*. Fine does not claim that expressions such as 'John as a judge' *normally* refer to *qua*-objects.

If we focus instead on the syntactic difficulty, we might take *as*-phrases as VP-modifiers instead of DP-modifiers. The idea is that 'John as a judge earns $50,000' is derived from 'John earns $50,000 as a judge' through movement of the *as*-phrase into the appositive position.[21] There is certainly nothing wrong with the idea that 'earns $50,000 as a judge' is a VP: it coordinates well with other VP's and it passes the ellipsis test as well. (The second sentence of (14) is ambiguous between a reading where Bill is said to make $50,000 and another where he is said to make $50,000 as a judge. The presence of the second reading suggests that 'earns $50,000 as a judge' is a genuine VP in the first sentence of (14).)

(13)   John earns $50,000 as a judge and lives happily.
(14)   John earns $50,000 as a judge. So does Bill.

The downside of this idea is that we miss a generalization about the inferential behavior of *as*-phrases and we make our semantics even less explanatory than Landman's. Landman could say something informative about the way the semantic value of 'John' is related to the semantic value of 'John as a judge': assuming John really is a judge, they are both proper ultrafilters and their intersection includes at least the properties of being John and being a judge. The meaning postulates needed to capture the inferential behavior of complex VP's including *as*-phrases can no longer be stated in such a relatively simple manner. The semantic values of 'earns $50,000' and 'earns $50,000 as a judge' are distinct properties and there is not much more we can say.

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[21] Landman argues that this account is inadequate because it cannot deal with sentences where the appositive constructions are coordinated. His example is 'Sir Hugh Calvin, as a judge, and Sir Hugh Calvin, as a private citizen have different opinions.' This example indeed shows that expressions of the surface form '*a* as *F*' can behave in certain respects as syntactic units. What it does *not* show is that these units are DP's: after all, 'and' can be used to coordinate expressions that are of different categories as well. True, Landman can provide a simple account of this sentence: he can treat 'have different opinions' as a two-place predicate whose arguments are saturated by two restricted terms. But this analysis is unsatisfactory: as (10) – (13) show expressions like 'Sir Hugh Calvin as a judge' are not DP's. Also, if we leave 'have different opinions' unanalyzed, inferences such as 'John and Mary have different opinions; therefore John has an opinion' will not come out as valid in virtue of logical form alone. I suspect the logical form of Landman's sentence is roughly that of 'Sir Hugh Calvin has an opinion as a judge and Sir Hugh Calvin has an opinion as a private citizen and these opinions differ.' I will not try to argue for such logical form in this paper: the semantics of 'same' and 'different' would lead us too far away from our main topic.

The fact that the explanatory problem and the syntactic problem pull in opposite directions suggests that the problems for Landman's proposal are not in the details but at a deeper level. I think the trouble is with the very idea that *as*-phrases are modifiers of some sort. Set aside the question whether 'as a judge' modifies the subject (as it appears to in 'John as a judge earns $50,000'), the predicate (as it appears to in 'John earns $50,000 as a judge'), or the entire sentence (as it appears to in 'As a judge, John earns $50,000'). Modifiers are expressions whose semantic function is to map an expression of a certain semantic category onto an expression of the same category. If *as*-phrases are modifiers, we should expect that the device could be *iterated*. But this is not the case:

(15)   a. * John as a judge as a janitor earns $50,000.
       b. * John earns $50,000 as a judge as a janitor.
       c. * As a judge, as a janitor, John earns $50,000.

This is a striking fact. Sure, one could dismiss it as a mere syntactic observation that has nothing to do with semantics. But it is important that other devices that have traditionally been treated as modifiers (attributive adjectives, manner adverbs, cleft constructions, etc.) can all be iterated. Conversely, expressions that cannot be iterated (determiners, tense morphemes, complementizers, etc.) are usually not treated semantically as modifiers. If there is a way doing so, we should retain this pattern.

3. Another false start: saturation

Here is a silly way to argue that there are no large fleas. Large fleas, if there were any, would be large. But they would be also fleas and all fleas are small. Nothing could be both large and small, so there are no large fleas.

Most of us think that in broad outlines we know what went wrong in this argument. 'Large' and 'small' are context-sensitive adjectives; they express a determinate property only if context supplies an appropriate *comparison class*. Nothing is large or small *simpliciter*, only in comparison to other things. When we say of a large flea that it

is large, we claim that it is large for a flea; when we say of it that it is small, we claim that it is small for an animal.

Just how context pulls off this trick is a matter of much controversy. Suppose you thought that the best way to analyze the fallacy would be to say that 'large' and 'small' contain in their lexical representations a variable whose contextually provided value is a comparison class.[22] Suppose you also accept that (16) and (16′) can express the same proposition, if the context is right.

(16)   This flea is small.
(16′)   This flea is small for an animal.

Then, you have a semantic proposal about the use of the *for*-phrase in the latter sentence. The proposal is that its semantic function is simply to saturate the extra argument-place of 'small'.

Now consider another silly argument. Good pianists, if there were any, would be good. But they would also be pianists and all pianists are bad boxers. (They've got to watch their fingers.) But bad boxers, if there are any, are bad. Nothing could be both good and bad, so there are no good pianists.

I think what went wrong here is the same as before: 'Good' and 'bad' are context-sensitive adjectives and they express a determinate property only if context supplies a *way* in which something can be good or bad. When we say of some particular pianist that she is good, we may claim that she is good as a pianist; when we say of her that she is bad, we may claim that she is bad as a boxer.

Just how context manages to specify the relevant way is controversial. But suppose, again, that you think the best thing to say is that 'good' and 'bad' bring from the

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[22] You may think it's crazy to postulate such a variable in logical form. But if you think binding must be represented at logical form and you are willing to construe 'Tinytown is small by almost any comparison' as quantification over comparison classes, you have no choice. (Arguments of this sort are developed in detail in Stanley (2000).) You may think that even if we do have to postulate a contextual variable, it's better to place it into the logical form of an ellipted noun. (This view is adopted in Stanley (2001). He builds on an earlier proposal from Ludlow (1989).) But I think there are good reasons to be suspicious of the idea that we should try to reduce apparent predicative uses of adjectives to attributive uses plus ellipsis. (Cf. Szabó (2000).)

lexicon a variable whose contextually given value is a way of being good or bad.[23] And suppose you accept that (17) and (17′) could in the right context express the very same proposition:

(17)   This pianist is bad.
(17′)   This pianist is bad as a boxer.

Then again, we have a proposal about some uses of *as*-phrases here. Like *for*-phrases, they saturate argument places of adjectives.

So, here is the idea. In the sentence 'John as a judge earns $50,000' the predicate contains a contextual variable for a way of earning $50,000. (Perhaps, we can say that there is no such thing as earning $50,000 *simpliciter*. To earn $50,000 is to earn $50,000 in a certain capacity, to earn it *as* something or other.) The *as*-phrase is co-indexed with the variable and semantic values of co-indexed nodes are guaranteed to be the same.[24] Such an account would immediately explain the non-iterabilty of *as*-phrases: 'John is bad as a pianist as a boxer' is ungrammatical because argument places cannot be doubly saturated. This is a simple, straightforward proposal. Pity it doesn't work.

A nice feature of the saturation idea is that it can explain why sentences like 'John is tall as a judge' are awkward. There aren't different ways of being tall: to be tall is just to excel in height within a given comparison class. Accordingly, we shouldn't expect a way variable in the logical form of this sentence, and so there is nothing for the *as*-phrase to saturate. But on reflection this explanation seems to be too strong. If 'as a judge' is really trying to saturate a nonexistent argument slot in 'tall', 'John is tall as a judge' should be as bad as, say, 'John is tall to a judge'. It is not. 'John is tall as a judge' doesn't seem to be ungrammatical; it is more like a category-mistake.

It seems that the argument saturation approach to *as*-phrases forces us to postulate hidden arguments all over the place. John can certainly vote for a proposal as a judge

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[23] If you think this is even wackier than postulating comparison class variables, you are not alone. But remember the alternatives and keep in mind the binding argument. Make sure that you know how to handle 'The movie was bad in every conceivable way' without having variables for ways of being good available at the logical form. And if you think sentences like 'This is good' are always elliptical for 'This is a good *N*', you need to be ready to explain why 'This is good. And this is another one' sounds odd, while 'This is a good *N*. And this is another one' is perfect.
[24] A similar proposal is offered in Bartsch (1986).

(even if he does not vote for the proposal as a janitor) so we need a way argument in the logical form of 'vote for the proposal'. But suppose that one must vote for or against the proposal by raising a hand. Then it seems that 'John raised his hand as a judge' could be true. If the argument saturation approach is correct, the grammaticality of this sentence requires the existence of a way argument in the logical form of 'raised his hand'. Furthermore, it seems that – assuming appropriate conventions – one could vote for or against a proposal by performing just about any observable action. To postulate a way argument in the logical form of all the VP's used to characterize these actions would rob the proposal much of its appeal.

Note that this sort of problem does not arise for the proposal that *for*-phrases saturate hidden comparison class arguments in logical form. The reason is that the occurrence of *for*-phrases is highly restricted: they can only be used in construction with gradable adjectives. Because of this, postulating a hidden comparison class argument in just those lexical items is not implausible. By contrast, *as*-phrases can occur in construction with virtually any predicate, simple or complex. This, of course, might be used as an argument for treating them as modifiers. The argument would be compelling, were it not for the fact that they cannot be iterated.

I have argued that the two approaches discussed in the semantic literature – the proposal that *as*-phrase are modifiers and the proposal that their semantic function is to saturate hidden arguments – are inadequate. It is time to look for a new idea.

4. Adjunct predication

I began this paper by claiming that in saying of someone that he is good *qua* cobbler we ascribe some sort of goodness to him. Although this is plausible enough, none of the proposals in the literature take it to be more than a metaphor. I do. There are good reasons to think that sentences (18) and (19) are syntactically relevantly alike.

(18)   John drove his car into a tree drunk.
(19)   John voted for the proposal as a judge.

And there are good reasons to believe that (18) involves two-layered predication: both 'drove his car into a tree' and 'drunk' are predicated of John. I suggest that (19) has a similar two-layered structure, except that the first predicate is ascribed to the subject only *insofar as the second is*. If this is correct, the principal task for the semantics of (19) is to account for the relation between the clauses 'John voted for the proposal' and 'John (is) a judge'. This will be the concern of section 6. Before I can turn to that, in this section, I will give support for the syntax I assume, and in the next, I will sketch the semantic background of my proposal.

The idea that 'judge' in (19) is a predicate applied to John is attractive for a variety of reasons. First, such an analysis predicts that (19) entails that John is (or was) a judge. Modifier or argument saturation approaches do not treat this entailment as structural: they assume that it holds as a matter of lexical semantics. It is, however, desirable to have semantic theories that account for systematic patterns of entailment at the level of logical form. Second, it is a striking fact that quantificational or demonstrative DP's do not form *as*-phrases and they also cannot be used in copular constructions:[25]

(20)   a. John as *some judge/*this judge is trustworthy.
         b. John is *some judge/*this judge.

The sort of nominal expressions that can form *as*-phrases and copular constructions are exactly those that are often characterized as predicates when they are not in argument position: indefinite and definite descriptions, role-identifying nouns, and bare plurals.

(21)   a. John is a judge/the most distinguished judge/president.
         b. John as a judge/the most distinguished judge/president gave a lecture.
         c. Those people are judges.

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[25] The sentences in (20b) are acceptable with special intonations in some dialects. I suspect that the special intonations trigger a different interpretation for the DP's. One might also suggest that the sentence 'The guests were many friends of Bill' is a counterexample to the claim that quantificational DP's cannot occur in copular constructions. I think it is not. For detailed arguments that 'many', 'few', 'little' and 'much' are adjectives and not determiners see Kayne (ms.) Note that partitive constructions, like 'five of Bill's best friends' can be predicates. They can also occur in *as*-phrases: 'The boys, as five of Bill's best friends, decided to take revenge on his tormentor.' I suspect – although I am not certain – that partitive constructions are not DP's.

d. Those people, as judges are lousy.

All this clearly suggests that *as*-phrases are predicates. Finally, the particle 'as' occurs in uninflected clauses, where it seems to indicate predication:[26]

(22)   I regard John (as) an idiot.

The attraction of the view that this particle carries the same interpretation in uninflected clauses and in *as*-phrases is considerable.

There is good evidence that 'judge' is related to the subject of (19) just as 'drunk' is to the subject of (18). 'Drunk' in (18) is an *adjunct predicate*.[27] Syntactically, adjunct predication comes in two varieties. Consider (23), which is ambiguous between the reading where John is said to be drunk and the reading where Mary is:

(23)   John met Mary drunk.

The two readings correspond to different syntactic structures. This can be seen in though-movement and with pseudo-clefts: the a. sentences preserve the ambiguity while the b. ones have only subject-oriented readings (where John is said to be drunk):

(24)   a. Meet Mary drunk though John did…   (ambiguity)
        b. Met Mary though John did drunk…   (only subject-oriented reading)

(25)   a. What John did is meet Mary drunk.   (ambiguity)
        b. What John did drunk is meet Mary.   (only subject-oriented reading)

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[26] Bowers (1993) argues that the particle 'as' in (22) is the direct lexical realization of the functional category *Pr* (mnemonic for predication). He also mentions the fact that the Welsh particle 'yn' may have the same function. (He credits the observation to Weyne Harbert.) The interesting thing about 'yn' is that, unlike the English 'as', it surfaces in simple adjectival and nominal predications as well.
[27] More precisely, 'drunk' is a *depictive* adjunct predicate. The term is from Halliday (1967) who distinguishes such predicates from *resultative* adjunct predicates, such as 'flat' in 'Mary hammered the metal flat.'

What this suggests is that in the object-oriented reading, 'Mary' and 'drunk' must be within the same V′ constituent, whereas in the subject-oriented reading 'drunk' is outside the V′ (but still within the VP).[28]

(26)   a. John[[met Mary]$_{V'}$ [drunk]$_{AP}$]$_{VP}$
         b. John[[met Mary [drunk]$_{AP}$]$_{V'}$]$_{VP}$

One of the reasons why *as*-phrases are plausibly taken to be adjunct predicates is that they observe the very same pattern:

(27)   a. Meet Mary as a reporter though John did…(ambiguity)
         b. Meet Mary though John did as a reporter… (only subject-oriented reading)

(28)   a. What John did is meet Mary as a reporter. (ambiguity)
         b. What John did as a reporter is meet Mary. (only subject-oriented reading)

         A related observation about adjunct predicates is that they can apply to subjects or objects, but never to indirect objects. (29), for example, does not have a reading where John is said to be drunk:[29]

(29)   ? The computer sold John the encyclopedia drunk.

This, again, seems true of *as*-phrases as well. The reading where Mary is said to be the pupil is simply unavailable for (30), even though it is pragmatically encouraged (since pupils *qua* pupils rarely give advice to their teachers):

(30)   John gave Mary an advice as a pupil.

         In sum, we have considerable empirical support for the proposal that *as*-phrases are adjunct predicates. I should note however, that there is an interesting way in which

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[28] For further evidence on this cf. Rothstein (2001): 125-8. She calls adjunct predicates when they occur inside the V′ *secondary predicates* and adjunct predicates that are outside of the V′ *indirect predicates*. The terminology in the literature is rather unsettled: many authors use 'secondary predicate' in the sense in which I use 'adjunct predicate'.
[29] Cf. Rothstein (2001): 156. The example is credited to Fred Landman.

as-phrases differ from garden-variety adjunct predicates. The latter can occur in passive sentences without *by*-phrases, the former cannot:

(31)   Breakfast was eaten naked.
(32)   * The vote was cast as a judge.

I have no account of this contrast. Nonetheless, I do have reason to hope that it does not undermine my thesis that *as*-phrases are adjunct predicates. For there is an obvious difference between 'naked' and 'as a judge': the former is an adjective, while the latter is a nominal predicate. Furthermore, nominal predication is known to result in ungrammaticality in passive sentences involving purpose clauses. So, while (33) is a grammatical sentence ascribing the purpose of collecting the insurance to the person who sank to boat, (34) cannot be used to ascribe the purpose of becoming a hero to him:

(33)   The ship was sunk to collect the insurance.
(34)   * The ship was sunk to become a hero.

For whatever reason, nominal predicates do not seem to be able to apply to unarticulated agents of passive sentences. [30] This explains the contrast between (31) and (32) without threatening the claim that *as*-phrases are adjunct predicates.[31]

5. Underlying events and states

Before addressing the interpretation of adjunct predication I need to say how predication itself is to be interpreted. More often than not this is regarded as a settled issue: the logical form of a sentence like 'John is happy' is 'happy (John)', where 'happy' is a one place predicate and 'John' an individual constant. I think this view is incorrect and should

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[30] I should note that I once heard the following sequence of sentences uttered: "We bought a white couch but we thought the children would ruin it. So, we covered it and never used it as white afterwards." I think it is marginally acceptable. Furthermore, it would remain marginally acceptable in the passive as well: "So, we covered it and it was never used as white." This gives further support for the claim the source of ungrammaticality in (32) lies in the fact that the *as*-phrase is nominal.
[31] Thanks to Chris Collins for calling my attention to the contrast between (31) and (32), and also for drawing the analogy between this and the well-known contrast between (33) and (34).

be replaced by one offered within the neo-Davidsonean framework. More precisely, I claim that the logical form of *all* natural language predication involves quantification over events or states. Let me elaborate.

The core idea behind Davidson's work on the semantics of action sentences is that action verbs have an additional argument place for an event variable, and this variable is existentially bound when the verb combines with a subject.[32] So, for example, the logical form of (35) is supposed to be (35′):

(35)   Kaigal-ool sang at midnight.
(35′) $\exists e$ (sang(Kaigal-ool, e) $\land$ at (midnight, e))

The chief reason this extra complexity is forced upon us is that we would like to provide a structural account of inferential connections among action sentences involving certain adverbs and prepositional phrases. In particular, the sentence 'Kaigal-ool sang beautifully from the throat at midnight' entails both 'Kaigal-ool sang beautifully at midnight' and 'Kaigal-ool sang from the throat at midnight' without their conjunction entailing 'Kaigal-ool sang beautifully from the throat at midnight'. Being one of the throat-singers of Tuva, Kaigal-ool might simultaneously sing in an ugly way from the throat and in a beautiful way by creating an overtone. In this case, the multiply modified sentence is false because it describes a single event, while the conjunction is true because it reports two distinct events. If we assume that 'beautifully' and 'from the throat' are predicates of events conjoined to the predicate expressing the verb within the scope of the event quantifier, all this follows from standard first-order logic.

We can paraphrase (35) in English as follows: there was an event, which was a singing, it was (done) by Kaigal-ool, and it was at midnight. Here 'singing' appears to be a one-place predicate of events and the subject of singing is linked to the event through the *by*-phrase. Assuming that the gerund 'singing' contributes to logical form the same predicate the verb 'sing' does and that the *by*-phrase in the paraphrase makes explicit the

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[32] Davidson (1967).

thematic relation encoded in the meaning of the verb (i.e. the relation Agents bear to their actions), we arrive at the following logical form:[33]

(35″)   ∃e (singing(e) ∧ Agent(Kaigal-ool, e) ∧ at(midnight, e))

Insofar as accounting for the inferences that motivated Davidson are concerned (35″) does as good a job as (35′). In addition, incorporating the relation between Agents and their actions in logical form sits well with the common syntactic assumption that action verbs assign the Agent role to their subject arguments and that this assignment accounts for many of the sectional properties of action verbs.[34] Theories that ascribe thematically separated logical forms to sentences like (35) are generally called 'neo-Davidsonean'.

In one respect Davidson's semantics seems artificially limited: it is hard to believe that the logical form of action sentences differs so fundamentally from the logical form of all other sentences. Neo-Davidsoneans are especially concerned to extend the scope of the theory as far as possible. All verbs assign thematic roles to their arguments,[35] and if the Agent relation is represented in logical form so must be all other thematic relations. Furthermore, the pattern of inference that motivated Davidson pops up with all sorts of non-action sentences as well. The sentence 'The building loudly exploded at midnight along its left wall' entails 'The building loudly exploded at midnight and the building exploded at midnight along its left wall' but not *vice versa*, for there may have been two simultaneous explosions, one loud along the right wall and another not so loud along the left. The sentence 'John unexpectedly heard a noise at midnight from above' entails 'John unexpectedly heard a noise at midnight and John heard a noise at midnight from above' but not *vice versa*, for John may have heard two noises at the same time, one

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[33] Natural language need not contain lexical items expressing the thematic relations. Although 'Agent(Kaigal-ool, e)' is reasonably well paraphrased as 'Kaigal-ool is an agent of e' semantic theories employing thematic roles needn't be committed to the idea that the English word 'agent' is synonymous with the thematic relation 'Agent'. To avoid misunderstandings, I use capital letters when talking about thematic relations.

[34] Cf. Chomsky (1981) and Higginbotham (1985).

[35] This is not to say that all verbs *have* arguments: denominal verbs, such as 'rain' don't. The simplified logical form of 'It rained heavily this afternoon is '∃e (raining(e) ∧ heavy(e) ∧ at(this afternoon, e))' and this contains no thematic relation. (Note that neo-Davidsoneans make a sharp distinction between the -arity of a verb and the -arity of the predicate the verb contributes to logical form. The verb 'rain' is 0-place, the

unexpectedly from below and another long awaited from above. And the sentence 'Bill passionately envied his boss for her success during last year' entails 'Bill passionately envied his boss during last year and Bill envied his boss for her success during last year' but not *vice versa* for Bill may have passionately envied his boss for her money during last year and may have not so passionately envied her for her success during last year. These data recommend the following logical forms:

(36)   The building exploded.
(36′)   ∃e (exploding(e) ∧ Theme(the building, e))

(37)   John heard a noise.
(37′)   ∃e (hearing(e) ∧ Experiencer(John, e) ∧Theme(a noise, e))

(38)   Bill envies his boss.
(38′)   ∃s (envying(s) ∧ In(Bill, s) ∧ Theme(his boss, e))

(The suggested logical forms can be paraphrased as 'There was an event that was an exploding and it was (an exploding) *of* the building', 'There was an event that was a hearing and it was (experienced) *by* John', and 'There was a state of envying and Bill was *in* that state', respectively. The logical forms are simplified because descriptions like 'the building', 'a noise' and 'his boss' occur in argument position and are typically treated as a quantifiers undergoing Quantifier Raising. The logical form of (36) looks more like this: 'the x[building(x)][∃e (exploding(e) ∧ Theme(x, e))]'. Since it does not matter for our purposes, I will ignore this complication in what follows.)

        Neo-Davidsonean accounts can deal rather well with a number of phenomena, such as cross-sentential anaphora, perceptual reports, or causatives:

(39)   John walked quickly. It made him tired.
(40)   John saw Mary asleep.
(41)   John flew a kite.

Intuitively, the anaphoric pronoun in the second sentence of (39) denotes John's quick walking. If the logical form of the first sentence is neo-Davidsonean, we need no

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verb 'sing' is 1-place – it has an Agent argument, the verb 'kiss' is 2-place – it has an Agent and a Theme argument, etc. Nonetheless, all these verbs contribute a 1-place predicate of events to logical form.)

resources to account for this other than what we need to account for sequences like 'A man walked in. He took off his hat.' What John saw according to (40) is Mary's being asleep. If the complement of the perception verb has a neo-Davidsonean logical form, this state is represented explicitly and it can be the Theme of John's seeing.[36] Finally, (41) entails 'The kite flew', which can be explained if we decompose the verb of the sentence into a causative morpheme and a core component. If the semantics is neo-Davidsonean, the causative morpheme can be interpreted as a relation between events, which yields a logical form for (41) roughly paraphraseable as 'John's doing something directly caused the flying of a kite.'[37] All this adds to the appeal of a unified neo-Davidsonean analysis of predication.

But all is not well with such an analysis. According to the neo-Davidsonean interpretation 'I am happy' is true just in case I am in a happy state. Suppose I am happy about my upcoming trip, but unhappy about my upcoming talk. Then, plausibly, I am in a happy state and also in a (different) unhappy one. Still, I am not both happy and unhappy.[38] Unfortunately, given the standard neo-Davidsonean semantics, something must give. Either we must deny that one could be simultaneously is a happy and an unhappy state or one must accept that one could be simultaneously happy and unhappy.

The way out of dilemma, I think, is to modify the standard neo-Davidsonean semantics for sentences like 'I am happy'. In saying that I am now happy I normally do not merely assert the present existence of some happy state of mine, in addition I also say that any extension of this state I am in all the way up to my maximal current state is also a happy state. If I am in a happy state and also in an unhappy one, there is no guarantee that the sum of these states is a happy state, and hence, no guarantee that all the extensions of my happy state are happy states. That is why being happy about something or other is not enough for being happy *simpliciter*.

Let me make these informal remarks a bit more precise. I assume a mereology of events and states. (For any number of events and states there is an event or state that it

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[36] For details see Higginbotham (1983).
[37] For details see Parsons (1990).
[38] I don't deny that it would be natural to say that I am happy and also unhappy. However, we have learned to take such claims with a grain of salt. Gricean conversational implicature can explain why the utterance of such a contradiction can be used to convey something true about my state of mind.

contains all of them as parts and is part of anything that contains al of them as parts.)[39] I also assume that there is a certain class of predicates ascription of which requires a stronger than usual default interpretation. I call these *persistent predicates.* If '*F*' is a persistent predicate '*a* (is) *F*' is true just in case there is an *F* event (or state), *a* bears a relation to this event (or state) determined by the thematic role the head of *F* assigns to *a*, and all extensions of this event (or state) to which *a* bears the same thematic relation are also *F*. For example, for (41), this yields the following logical form. (As before, tense is ignored. If added, tense quantifiers would take scope over the state quantifier.)

(42)   I am happy.
(42′) $\exists s\ (happy(s) \wedge In(I, s) \wedge \forall s'\ ((In(I, s) \wedge s{\leq}s') \rightarrow happy(s')))$

Note that (42′) is perfectly compatible with a Davidsonean treatment of VP-modifiers. 'I am deliriously happy about the news' entails 'I am deliriously happy and I am happy about the news', but not the other way around. (I might be moderately happy about the news and deliriously happy about the weather.)

(43)   I am deliriously happy about the news.
(43′) $\exists s\ (happy(s) \wedge In(I, s) \wedge delirious(s) \wedge about(the\ news, s) \wedge \forall s'((In(I, s) \wedge s{\leq}s') \rightarrow$
        $happy(s')))$

(44)   I am deliriously happy and I am happy about the news.
(44′) $\exists s\ (happy(s) \wedge In(I, s) \wedge delirious(s) \wedge \forall s'((In(I, s) \wedge s{\leq}s') \rightarrow happy(s') \wedge$
        $\exists s\ (happy(s) \wedge In(I, s) \wedge about(the\ news, s) \wedge \forall s'((In(I, s) \wedge s{\leq}s') \rightarrow happy(s')))$

Whether a predicate is persistent can be decided by applying the test I made use of for 'happy'. If something can simultaneously be *F* in certain respect without being *F* *simpliciter* then '*F*' is a persistent predicate. But if it is true that something is *F* as a *G* then surely it is *F* in a certain respect. So if a *qua*-sentence fails to entail its qualified clause, its qualified predicate is a persistent one.

This, I think, is the key to the failure of such inferences. Consider the example we stared out with, (1) and (2):

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[39] For more on the mereology of events and states I am assuming here, see Link (1987).

(1)   John as a judge earns $50,000
(2)   John earns $50,000

(1) does not entail (2). Nonetheless, if (1) is true there *is* a state of him earning $50,000. (2) doesn't follow because its default interpretation involves persistent predication: it is read naturally as the claim that John is in a state of earning $50,000 and any extension of that state is still a state of earning $50,000. And in the case mentioned above this is false: since John earns $60,000 altogether, the largest state he is in is not a state of earning $50,000 only.

Everything is now in place for the semantic analysis of *qua*-sentences. This is the topic of the next section.

6. A proposal

Sentences with adjunct predicates express two-layered predication. In a neo-Davidsonean framework two-layered predication is built up from by merging two clauses and possibly adding some further conjuncts.[40] Here is the general schema:

(45)   *a* (is) *F*
(45′) $\exists \sigma \, (F(\sigma) \wedge \Theta^F(a, \sigma) \wedge \Xi)$

(46)   *a* (is) *G*
(46′) $\exists s \, (G(s) \wedge \text{In}(a, s) \wedge \Psi)$

(47)   *a* (is) *F G*
(47′) $\exists \sigma \exists s \, (F(\sigma) \wedge \Theta^F(a, \sigma) \wedge \Xi \wedge G(s) \wedge \text{In}(a, s) \wedge \Psi \wedge Z)$

(45′) is the general schema of the logical form for predication: σ is an event or state variable (depending on the meaning of *F*), Θ^F is the thematic role *F* assigns to its subject and Ξ is a (possibly empty) sequence of conjuncts. (46′) is the schema for nominal predication. (Adjunct predicates are nominal or adjectival, and hence always stative.)

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[40] This sort of semantics for adjunct predication is defended in detail in Rothstein (2000). She also outlines a compositional mechanism that results in such logical forms.

(47′) is constructed from (45′) and (46′) by merger and the addition of the (possibly empty) sequence of conjuncts Z. The function of Z is to spell out the logical relation between the two clauses, and accordingly, it can be different for different kinds of adjunct predications.

The two main forms of adjunct predicates distinguished in the literature are the *resultatives* and the *depictives*, illustrated by the examples (48) and (49), respectively:

(48)   John painted the fence white.
(48′) $\exists e \exists s$ (painting(e) $\wedge$ Agent(John, s) $\wedge$ Theme(the fence, e) $\wedge$ red(s) $\wedge$ In(the fence, s) $\wedge Z_R$)

(49)   John drove his car into a tree drunk.
(49′) $\exists e \exists s$ (driving(e) $\wedge$ Agent(John, s) $\wedge$ Theme(his car, e) $\wedge$ into(a tree, e) $\wedge$ drunk(s) $\wedge$ In(John, s) $\wedge Z_D$)

What Z_R and Z_D might be can be determined by considering paraphrases. A good paraphrase of (48) is 'John's painting of the fence resulted in the fence's whiteness' which suggests that Z_R expresses some causal relation between the painting and the whiteness of the fence. A good paraphrase of (49) is 'John was drunk while he drove his car into a tree' which suggests that Z_D is the relation of temporal inclusion.

I have been arguing that *as*-phrases are adjunct predicates, so the logical forms of *qua*-sentences have to fit the general pattern under (47′). The only question is what Z_Q (the sequence of conjuncts peculiar to qualifying adjunct predication) might be. Consider first (50):

(50)   John raised a question as a judge.
(50′) $\exists e \exists s$ (raising(e) $\wedge$ Agent(John, e) $\wedge$ Theme(a question, e) $\wedge$ judge(s) $\wedge$ In(John, s) $\wedge Z_Q$)

Z_Q is not straightforwardly causal or merely temporal. Someone uttering (50) may implicate that John raising a particular question could not have occurred had it not been for his being a judge, but he certainly does not say that this state contributed to the bringing about of that event. And, although it is true that (50) entails 'John was a judge while he raised a question', the converse entailment is invalid. If John, the judge, raised a

question at home with his son as a parent, 'John raised a question as a judge' might be false even though 'John raised a question while he was a judge' is true. Z_Q must be stronger than Z_D.

I think a reasonably good paraphrase of (50) would be 'John's raising a question is part of his being a judge.' (This may not be a very natural thing to say, but note that we would not hesitate to make the generic claim 'Raising questions is an important part of being a judge'. If this generic claim is true and if John is in fact a judge, it is hard to see what could be wrong with 'John's raising a question is part of his being a judge'.) So, I propose (50″) as the logical form for (50):

(50″) $\exists e \exists s$ (raising(e) $\wedge$ Agent(John, e) $\wedge$ Theme(a question, e) $\wedge$ judge(s) $\wedge$ In(John, s) $\wedge$ e$\leq$s)

I am appealing to is the same notion of parthood I made use of in the last section discussing persistent predication. This is the ordinary notion, the one we employ when we say things like 'My toothache was but a small part of my misery' or 'Danton's execution was a fateful part of the Jacobin terror'. This notion is stronger than that of temporal inclusion. Not everything that happened during my general misery was part of that sorry state and not everything that happened during the Jacobin terror was part of that bloodbath. Similarly, not everything that happened during John's being a judge was part of his being a judge. For example, raising a question with his son was not.

Let us return to (1), our initial example. This sentence entails (3) but not (2). If we take into account the observation that the default interpretation of (2) is persistent, the logical forms predict this pattern:

(1)   John as a judge earns $50,000.
(2)   John earns $50,000.
(3)   John is a judge.

(1′) $\exists s_1 \exists s_2$ (earn-$50,000($s_1$) $\wedge$ In(John, s_1) $\wedge$ judge(s_2) $\wedge$ In(John, s_2) $\wedge$ $s_1 \leq s_2$)
(2′) $\exists s$ (earn-$50,000(s) $\wedge$ In(John, s) $\wedge$ $\forall s'$ ((In(John, s') $\wedge$ $s \leq s'$) $\rightarrow$ (earn-$50,000($s'$)))
(3′) $\exists s$ (judge(s) $\wedge$ In(John, s))

All we need to account for the failure of certain *qua*-sentences to entail their qualified clause is the principle that qualified predication within a *qua*-sentence cannot be persistent, even if the default interpretation of the qualified clause in isolation is the persistent one.

Still, (1′) cannot be exactly the logical form of (1). The problem can be illustrated through the following counterexample. Consider a case when John is judge in towns A and B and has no other jobs besides these. In town A he earns $50,000 as a judge, in town B he earns $70,000 as a judge. In this case (1) is false – John earns $120,000 as a judge. It is, however, true that John is in a state of earning $50,000 – any of his states to which 'judge in A' applies but 'judge in B' does not will do. Such a state is of course also a state of being a judge and a part of itself. Consequently, (1′) is true.[41]

The example shows that we cannot just drop the persistence clause from (2′) when we combine it with (3′) in constructing the logical form of (1). Qualified predication must have a *qualified persistence clause.* (1) doesn't just say that John is in some state of earning $50,000 – it says that John is in a state of earning that much any extension of which is such that if he is in it, *either* the predicate 'earns (exactly) $50,000' *or* some contextually salient alternative of 'judge' – in our case 'janitor' – applies to it. Let 'Alt$_c$(F)' be a predicate that applies to those states to which some predicate that is a salient alternative of F in context c applies. I propose that the logical form of (1) is (1″):

(1″) $\exists s_1 \exists s_2$ (earn-$50,000(s_1) \wedge$ In(John, s_1) $\wedge$ judge(s_2) $\wedge$ In(John, s_2)) $\wedge s_1 \leq s_2 \wedge$
      $\forall s'$ ((In(John, s') $\wedge s_1 \leq s'$) $\rightarrow$ (earn-$50,000(s') \vee$ Alt$_c$(judge)(s'))))

This takes care of the problem of John being a judge in two different towns. Although he does have states of earning $50,000 these states all have extensions that are still states of being a judge but are not states of earning $50,000 – they are states of earning $120,000. This seems to be an intuitively correct explanation.

Note that if this is the logical form of (1), we still have an account of the failure of the inference from (1) to (2). The default interpretation of (2) requires an (unqualified) persistence clause but (1) only entails the predication of 'earns $50,000' of John that is

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[41] Thanks to John Hawthorne for this one.

persistent only if we *neglect* all of John's states to which any of the contextual alternatives of 'judge' apply. This, again, is the intuitively correct result.

7. Some results

Let me summarize the main features of my semantics for *qua*-sentences. *As*-phrases are adjunct predicates and as such they are interpreted along the same lines as depictive or resultative tags. The difference among different kinds of adjunct predication lies in extra conjuncts, which indicate the way the underlying events or states of the main and the adjunct predications relate to each other. In *qua*-sentences this extra conjunct specifies that an event or state described by the qualified clause is part of a state described by the qualifying clause. Qualified predications cannot be interpreted as persistent, which accounts for the fact that certain *qua*-sentences fail to entail (the default interpretation of) their qualified clause. If their default interpretation in isolation contains a persistence clause, this clause is qualified when they combine with the qualifying clause to form a *qua*-sentence. So, the proposal is: if '*F*' is a persistent predicate, the logical form of '*a* (is) *F* as *G*' is (51a), otherwise it is (51b):

(51a) $\exists \sigma \exists s \ (F(\sigma) \wedge \Theta^F(a, \sigma) \wedge \Xi \wedge G(s) \wedge \mathrm{In}(a, s) \wedge \Psi \wedge \sigma \leq s \ \wedge$
$\quad\quad \forall \sigma' \ ((\Theta^F(a, \sigma') \wedge \sigma \leq \sigma') \rightarrow (F(\sigma') \vee \mathrm{Alt}_c(G)(\sigma'))))$

(51b) $\exists \sigma \exists s \ (F(\sigma) \wedge \Theta^F(a, \sigma) \wedge \Xi \wedge G(s) \wedge \mathrm{In}(a, s) \wedge \Psi \wedge \sigma \leq s)$

(51a) and (51b) are specifications of the general schema for adjunct predication, (1″) is a specification of (51a), (50″) is a specification of (51b); all as it should be.

The chief advantage of this proposal is the fit with a plausible view of the syntax of *qua*-sentences. *As*-phrases are neither modifiers nor prepositional phrases saturating extra argument slots in verbs. They are predicates ascribed to an individual insofar as another predicate is. In saying of Socrates that he is good *qua* cobbler, we are ascribing goodness to him – albeit in a qualified manner.

The proposal also explains the inferential constraints Landman had to stipulate for his own approach. The constraints are repeated here from section 2:

(9) a. John as a judge is John.
     b. John as a judge is a judge.
     c. If John as a judge is *P* and John as a judge is *Q* then John as a judge is *P* and *Q*.
     d. If John as a judge is *P* and *P* implies *Q* then John as a judge is *Q*.
     e. It is not the case that John as a judge is both *P* and not-*P*.
     f. John as a judge is either *P* or not-*P*.
     g. If John as a judge is *P* then John is a judge.

Suppose John is a judge.[42] Since 'John is John' is a tautology, we may plausibly assume that 'is John' is true of *all* states John is in. If this is so, (9a) is trivially true under the proposed analysis. (9b) follows from the fact that parthood is reflexive: if John is in a state of being a judge then this state contains a state of John being a judge as part, namely, itself. (9c), (9e) and (9f) all follow if we make the usual assumption that Boolean connectives take wide scope with respect to the underlying quantification over events and states. For then 'John as a judge is *P* and *Q*' has the same logical form as 'John as a judge is *P* and John as a judge is *Q*', 'John as a judge is *P* and not-*P*' has the same logical form as 'John as a judge is *P* and it is not the case that John as a judge is *P*', and 'John as a judge is *P* or not-*P*' has the same logical form as 'John as a judge is *P* or it is not the case that John as a judge is *P*'.[43] Assuming '*P* implies *Q*' means that '*Q*' applies to every event or state '*P*' does, (9d) is also guaranteed to be true. If John is thematically related to a *P* event or state that is part of a state of him being a judge, he is thereby thematically related to a *Q* event or state that is part of the very same state. The qualified persistence clause poses no problem either. If it is true that every extension of this *P* event or state to which John is related via the same thematic relation is such that either '*P*' or some contextually salient alternative of 'judge' applies to it, then *a fortiori* either '*Q*' or some contextually salient alternative of 'judge' applies to it. Finally, if John is a judge, (9g) is of course trivially true.

Despite the fact that it is based on a parthood relation, the semantics does not guarantee that inferences of the form '*a* as *F* is *G* and *a* as *G* is *H*; therefore *a* as *F* is *H*'

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[42] Recall that Landman overstated (9a), (9b) and (9f) – these sentences are true only if John is in fact a judge.
[43] Note that 'John as a judge and a janitor earns $60,000' has a reading that does not entail 'John as a judge earns $60,000 and John as janitor earns $60,000.' The 'and' within *as*-phrases *can* take narrow scope with respect to the underlying quantification over events or states.

are valid. (*a* might have an *F* state that is part of a *G* state he is in and a *different G* state that is part of an *H* state he is in, in which case he may lack an *F* state that is part of an *H* state he is in.) This is as it should be, as the following invalid inference illustrates:

(52)   As vice-president, Cheney a member of the Senate.
          As a member of the Senate, Cheney can do little harm.
          Therefore, as vice-president, Cheney can do little harm.

There are certain *qua*-sentences which seem to entail their qualified clauses even though the qualified predicate is persistent. A good example is (53):

(53)   Socrates as a human being is rational.
(53′) $\exists s_1 \exists s_2$ (rational(s_1) $\wedge$ In(Socrates, s_1) $\wedge$ human-being(s_2) $\wedge$ In(Socrates, s_2)) $\wedge$
          $s_1 {\leq} s_2 \wedge \forall s'$ ((In(Socrates, s') $\wedge$ $s_1 {\leq} s'$) $\rightarrow$ (rational(s') $\vee$ Alt$_c$(human-being)(s'))))

One can certainly be rational as a chess-player without being rational *simpliciter*, but one cannot be rational as a human being without being rational *simpliciter.* This follows from the sensible assumption that 'human being' is a predicate that typically lacks salient alternatives for human beings, i.e. for normal contexts *c*, 'Alt$_c$(human being)' applies to no state a human being is in. Consequently, (53′) is equivalent to (53″), which of course entails the persistent reading of 'Socrates is rational'.

(53″) $\exists s_1 \exists s_2$ (rational(s_1) $\wedge$ In(Socrates, s_1) $\wedge$ human-being(s_2) $\wedge$ In(Socrates, s_2)) $\wedge$
          $s_1 {\leq} s_2 \wedge \forall s'$ ((In(Socrates, s') $\wedge$ $s_1 {\leq} s'$) $\rightarrow$ rational(s')))

If we are in a context where it is assumed that Socrates can be simultaneously a human being and, say, a goat the assumption that 'Alt$_c$(human being)' applies to no state a human being is in is no longer sensible. But then (53) no longer entails (the default reading of) 'Socrates is rational'.

Finally, I want to mention in passing that the analysis of "predication under a description" encapsulated in (51a) may have applications in the semantics of natural language far beyond *qua*-sentences. In section 3, I mentioned the parallel between 'Socrates as a good cobbler' and 'Socrates is good as a cobbler'. Although I believe that the former allows for a reading according to which Socrates is good (as a human being)

and a cobbler (and perhaps not particularly good at that),[44] the truth-conditions of the default reading appear to be identical to the truth-conditions of the latter. And there are other constructions in natural languages for which good paraphrases involving "insofar as" are available:

(54)   Socrates is a good cobbler.
        'Socrates is good insofar as he is a cobbler.'

(55)   John wisely left the room.[45]
        'John was wise insofar as he left the room.'

(56)   The problem is mathematically interesting.
        'The problem is interesting insofar as it is mathematical.'

Even if the logical forms of these sentences differ from the logical form of *qua*-sentences,[46] the difference may be inconsequential as far as truth-conditions are concerned. I will leave the investigation of this possibility for another occasion.

8. Back to cheap differences

Where does this leave simple arguments for non-identity? Recall that making such an argument requires finding an extensional predicate '*F*' such that '*a* is *F*' is true but '*b* is *F*' isn't. From this, the distinctness of *a* and *b* follows. Curiously, some of these arguments had proved to be less than fully convincing. A possible line of resistance – perhaps the only reasonable one – is to maintain that (i) in the context where these arguments are presented '*b* is *F*' is used to express a proposition usually expressed by '*b* as *G* is *F*', and (ii) this latter proposition is false. If these two conditions hold, the truth of '*a* is *F*' is compatible with the falsity of '*b* is *F*' even if '*F*' is extensional and *a*=*b*.

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[44] See Szabó (2000).
[45] (57) has another reading where 'wisely' is interpreted as a manner adverb. The reading I am interested in is usually paraphrased as 'It was wise of John that he opened the door.'
[46] Note that unlike *as*-phrases, attributive adjectives, subject-oriented adverbs and domain adverbs can all be iterated. This gives a *prima facie* reason to think that they are modifiers of some sort.

There is much to be said in particular cases to substantiate this idea. But the first step in now in place: we have a systematic semantics for *qua*-sentences that spells out the conditions under which '*b* as *G* is *F*' can be false even though '*b* is *F*' is true. We know, for example, that if a lump of clay molded into a statue has expensive states but none that are parts of states of being a lump of clay 'The lump of clay as such is expensive' is false even though 'The lump of clay is expensive' is true. If in many contexts the former sentence is naturally interpreted as the second, we have a diagnosis of the fallacy.

It is noteworthy, however, that if the semantics for *qua*-sentences in section 6 is correct, this sort of response is vulnerable whenever simple arguments for non-identity are based on essential properties. Suppose the friend of the distinctness of material objects and their matter argues as follows: "The statue is an artifact. The lump of clay is a mere hunk of matter, and hence it is not an artifact." The identity theorist will deny the second claim and say that 'The lump of clay is not an artifact' seems true because in this context it is naturally read as 'The lump of clay as such is not an artifact', which *is* true. But there is a problem. Given the semantics in section 6, the truth of this *qua*-sentence requires the existence of some state the lump is in that is not a state of being an artifact. If they are indeed identical, the statue must have such a state too. This, however, will be denied by some opponents of the identity theory: they maintain that the statue is essentially an artifact, and hence, *all* its states are artifact states. The trouble is not that this claim is obviously right; it is that it is not obviously wrong. Reasonable doubts about the truth of 'The lump of clay as such is not an artifact' call the entire strategy of responding to the simple argument into question.

The difficulty seems closely related to the Aristotelian view that (57), unlike (58), is false:

(57)   The isosceles triangle as such has angles that add up to two right angles.
(58)   The isosceles triangle as a triangle has angles that add up to two right angles.

This, of course, is not what the semantics I gave predicts. Since an isosceles triangle presumably cannot have a state that is not a state of having angles that add up to two right angles 'The isosceles triangle as *F* has angles that add up to two right angles' is true, as long as 'The isosceles triangle is *F*' is. Nonetheless, there is something to Aristotle's

insight. If we can explain what it is, we will also see why 'The lump of clay as such is not an artifact' *seems* true quite independently of the tangled question whether it *is* true.

I think this is all a matter of focus. (57) is heard as false and its falsity can be explicated as follows: 'It is not *as an isosceles triangle* that an isosceles triangle has angles that add up to two right angles. The angles of *any* triangle add up two right angles.' The proper interpretation of the cleft construction in this explanation involves a contrast with the other members of some contextually given set of alternatives. Uttered without focal stress on 'John', (59) is weaker than (59′) – the latter also says that John was the only one among the relevant people who danced with Mary. Uttered with focal stress on 'John', (59) becomes equivalent to (59′):

(59)   John danced with Mary at the party.
(59′)   It is John who danced with Mary at the party.

The situation is analogous with (57) and (57′):

(57)   The isosceles triangle as such has angles that add up to two right angles.
(57′)   It is as an isosceles triangle that the isosceles triangle has angles that add up to two right angles.

The latter entails that 'isosceles triangle' is the only description under which it is true of an isosceles triangle that it has angles that add up to two right angles. This claim is false, for an isosceles triangle has two angles that add up to two right angles under *any* description that fits it. But when it is uttered with focal stress on 'isosceles triangle' (57) itself acquires these truth-conditions. Hence the Aristotelian intuition that this sentence is false.

I conclude that the semantics I proposed does provide the resources to mount a defense against simple arguments for non-identity, even when they are based on essential properties. It remains to be seen whether these resources can be successfully put to use in defense of particular identity claims.[47]

REFERENCES

Anscombe, G. E. M. (1957) *Intention.* Oxford: Basil Blackwell.

Anscombe, G. E. M. (1979) ''Under a Description'.' In: *The Collected Philosophical Papers of G. E. M. Anscombe. Vol 2: Metaphysics and the Philosophy of Mind.* 208 - 220. Minneapolis, MN: University of Minnesota Press. Originally published in *Noûs* (1979).

Bartsch, Renate (1987) 'Context-Dependent Interpretation of Lexical Items.' In: J. Groenendijk et al. (eds.) *Foundations of Pragmatics and Lexical Semantics*, 1 - 27. Dordrecht: Foris.

Bäck, Allan (1996) *On Reduplication.* Leiden: E. J. Brill.

Bowers, John (1993) 'The Syntax of Predication.' *Linguistic Inquiry* **24:** 591 - 656.

Braun, David and Jennifer Saul (2002) 'Simple Sentences, Substitutions, and Mistaken Evaluations.' *Philosophical Studies* **111:** 1 - 41.

Fine, Kit (1982) 'Acts, Events, and Things.' In: W. Leinfellner et. al. eds., *Sprache und Ontologie.* 97 - 105. Wien: Hölder - Pichler - Tempsky.

Fine, Kit (ms.) 'The Non-Identity of a Material Thing and Its Matter.'

Forbes, Graeme (1997) 'How Much Substitutivity?' *Analysis* **57:** 109 - 113.

Forbes, Graeme (1999) 'Enlightened Semantics for Simple Sentences. *Analysis* **59:** 86 - 91.

Fox, Chris (2000) *The Ontology of Language.* Stanford, CA: CSLI Publications.

Halliday, Michael (1967) 'Notes on transitivity and Theme in English, Part I.' *Journal of Linguistics* **3:** 37 - 81.

Kayne, Richard S. (ms.) 'On the Syntax of Quantity in English.'

Landman, Fred (1989) 'Groups II.' *Linguistics and Philosophy* **12:** 723 - 44.

Link, Godehard (1987) 'Algebraic Semantics for Event Structures.' In: J. Groenendijk et al. (eds.) *Proceedings of the 6th Amsterdam Colloquium.* 243 - 62. Amsterdam: ITLI.

Ludlow, Peter (1989) 'Implicit Comparison Classes.' *Linguistics and Philosophy* **12:** 519 - 533.

Moore, Joseph (1999) 'Saving Substitutivity in Simple Sentences.' *Analysis* **59:** 91 -105.

Moore, Joseph (2000) 'Did Clinton Lie?' *Analysis* **60:** 250 - 254.

Parsons, Terence (2000) 'Underlying States and Time Travel.' In: J. Higginbotham, F. Pianesi and A. Varzi eds., *Speaking of Events.* 81 - 94. Oxford: Oxford University Press.

Reimer, Marga (1998) 'Quantification and Context.' *Linguistics and Philosophy* **21:** 95 - 119.

Rothstein, Susan (2001) *Predicates and their Subjects.* Dordrecht: Kluwer.

Salmon, Nathan (1986) *Frege's Puzzle.* Cambridge, MA: MIT Press.

Saul, Jennifer (1997) 'Substitution and Simple Sentences.' *Analysis* **57:** 114 - 118.

Saul, Jennifer (1999) 'Substitution, Simple Sentences, and Sex Scandals.' *Analysis* **59:** 106 - 112.

Soames, Scott (1988) "Direct Reference, Propositional Attitudes, and Semantic Content.' In: N. Salmon and S. Soames eds., *Propositions and Attitudes.* Oxford: Oxford University Press. Originally published in *Philosophical Topics* (1987).

Stanley, Jason and Zoltán G. Szabó (2000) 'On Quantifier Domain Restriction.' *Mind and Language* **15:** 219-261.

Stanley, Jason (2001) 'Nominal Restriction.' In: G. Peters and G. Preyer, eds., *Logical Form and Language*. 365-388. Oxford: Oxford University Press.

Szabó, Zoltán G. (2000) 'Adjectives in Context.' In I. Kenesei and R. M. Harnish eds., *Perspectives on Semantics, Pragmatics, and Discourse.* 119 - 146. Amsterdam: John Benjamins.

Thomason, Richmond (1980) 'A Model Theory for Propositional Attitudes.' *Linguistics and Philosophy* **4:**