There is an obvious morphological relationship between complex words such as "man-eater and self-locking" and phrases such as "eats men and locks itself." The perception of derivation suggests semantic relatedness and provides evidence for the notion of analytic synonymy and by extension, analytic hyponymy. However, judgments of analytic synonymy are questionable, and may in some cases be based on no more than intuition. Judgments of analyticity applied to very restricted classes of items can also be motivated by semantic theory, which are fallible. Analytical equivalences rooted in perceived relations of lexical derivation are common, but this relationship does not guarantee synonymy or hyponymy. While the circumscription of classes of analytic truth has a role to play in semantic theory, the idea that the notion of analyticity provides a foundation for such a theory is untenable.
I want, in this article, to discuss the relationship between complex words such as man-eater and self-locking and phrases such as eats men and locks itself. There is an obvious morphological relationship between the cited words and phrases; the average native speaker of English would, as a consequence of this relationship, regard the two words as each being derived from the phrases with which they are morphologically paired. She would also almost certainly accept that, to use the common and extremely vague formula, each pair of words and phrases means the same thing or has the same meaning. The perceived relationship of derivation creates an especially strong sense of semantic relatedness. Such popularly perceived equivalences of meaning could be regarded as providing test cases for the notion of analytic synonymy and so, by extension, analytic hyponymy, synonymy being simply reciprocal hyponymy. If man-eater and something which eats men are not analytically equivalent, if being something which eats men is not an analytically necessary and sufficient condition for being a man-eater, then, one might ask, what other plausible candidates for analytic equivalence are there?

Before turning specifically to the issue of analyticity and morphological relatedness, I want to emphasize generally just how questionable judgements of analytic synonymy can be. The average, 'unphilosophic', native speaker of English, if asked whether or not mother and female parent mean the same thing would probably say yes. Mother and
female parent *are* prime candidates for analytic synonymy. It is however perfectly conceivable that there should be female parents who are not mothers, and there may well be such mothers. The author Jan Morris, for example, who published a well received book on Hong Kong two years ago, is a woman. She used however to be a man: she has undergone a sex-change operation. While she was a man she fathered children. She is a female parent who is not a mother. Female parent and mother are not analytically synonymous: you can be a female parent without being a mother. Some people might question whether those who undergo 'so-called' sex-change operations really change sex, though contemporary usage seems content to refer to them as women. However, even if such people don't 'really' change sex it is perfectly easy to conceive of a sex-change whose reality nobody would dispute. Conceive of a transformation right down to the level of chromosome structure so that XY chromosome pairs are replaced by XX ones. Female parent and mother are not analytically equivalent. The proponent of analyticity might reply that mother is still an analytic hyponym of female parent; however, since most people, prior to having the implications of sex-change pointed out to them, would unhesitatingly say that mother and female parent mean the same thing, the fact that they are not analytically equivalent must call into question judgements of analyticity generally. For this is no mere borderline case: a central judgement of synonymy turns out to be reviseable in the light not even of some profound theoretical transformation but, simply, of advances in medical technology.

The semantic relationship between man-eater and eats men seems peculiarly direct. An agential noun has been formed by the common process
of suffixing \textit{-er} to an object-verb compound, the compound not being a free form, and so yielding the meaning "something which eats men." Lexical processes are of course often highly idiosyncratic and we cannot predict that an agentive compound of this type will always have this kind of meaning. Nevertheless, the semantic structure of \textit{man-eater} is typical of this class of nouns and as a consequence the direct semantic relationship between it and \textit{something which eats men} would seem to be a prime candidate for the class of analytic equivalences. We should not, strictly speaking, say that \textit{man-eater} is derived from \textit{eats men}, for the relationship of derivation holds between lexemes and the phrase \textit{eats men} contains a specific inflected form of each of its two lexemes. Yet in discussing the semantics of \textit{man-eater} we naturally relate it to the specific phrase cited and not just generally to the lexemes it is derived from. This pattern is true of agentive nouns, both compound and non-compound, generally. The use of present tense in the verb and plural number in the noun of the cited phrase's relative clause leads to an interpretation in terms of habitual aspect: what is at issue is the habitual eating of men. This is not surprising as the derived word is a noun and nouns are associated with stative meaning. To say of something that it is a \textit{man-eater} is therefore to refer not to some transient act but to an at least semi-permanent habit or disposition that possesses it. This is all straightforward enough, but has profound implications for the semantics of agentives.\footnote{4}

A little science-fiction: it has been found that tigers and other animals which have developed the habit of eating men have a specific conformation of the brain which is unique to them. Research has further established that this conformation is no mere concomitant of habitual
man-eating but is actually its cause. A post-mortem is being carried out on Leo, an inappropriately named tiger who has spent a long and uneventful life in a zoo. The dissector is scrutinizing Leo's brain with a powerful microscope when he suddenly realizes that he is looking at the brain conformation known to be the cause of habitual man-eating. He thinks of Leo's reputation amongst his keepers for being cantankerous and potentially dangerous - "My God! Leo was a man-eater." Such an exclamation is easily imaginable and my linguistic intuitions at least tell me that such a use of man-eater would be perfectly literal and not involve any metaphorical 'stretching' of sense. Leo would truly be a man-eater, one who had never had the opportunity to express his man-eating nature. What is happening here seems clear enough. The stative semantic orientation of the noun man-eater is not necessarily limited to the noun's being taken to refer to entities with a habit of eating men. If an underlying state is postulated which accounts for this habit than the noun is taken to refer to entities in this state. So if the underlying state is found to be present but the habit is absent the entity is judged to be a man-eater. Moreover, if the habit is present but the underlying state is not, something might well be judged not to be a man-eater. If a tiger which has eaten a number of men is killed, subsequently dissected and found not to have the man-eating brain conformation, we might well say, speaking quite literally, that "He wasn't really a man-eater." A sequence of accidents or whatever must have led to his eating the men. My own intuitions are not in this case as strong as in the previous one, but it is certainly not obvious such a tiger would truly be a man-eater, and something like obviousness is needed for a judgement of analyticity. So being something which eats men is neither an analytically necessary nor an analytically
sufficient condition of something's being a man-eater. In our science-fiction world it would simply be typically true of man-eaters that they ate men.

This analysis of man-eater is very similar to Hilary Putnam's essentialist account of natural kind terms. If the man-eating brain conformation existed it would probably constitute the full blown a posteriori essence of being a man-eater, a necessary and sufficient condition discovered empirically and not intuited a priori. In our science-fiction world man-eaters would probably be a natural kind. It is empirically absurd to suppose that man-eaters are a natural kind but not in principle, I hope I have shown, inconceivable. In reality being something which eats men is the sole practical criterion for being a man-eater, but this does not create an analytic equivalence between man-eater and something which eats men. That this kind of analysis can be applied to an agentive is striking, for Putnam himself thinks that it can't be: perceived relations of derivation create strong convictions of meaning identity. The case of man-eater shows that such convictions are not infallible. Man-eater, like mother, gives rise to a central case of supposed analytic synonymy. Its failure to actually generate an analytic equivalence calls claims for such equivalences in general into question; for a claim to intuit an analytic equivalence is a claim to a priori knowledge and the possibility that an unforeseen exception, as with mother or man-eater, may always turn up makes such a claim impossible. In the case of agentives generally it is easy to imagine how the supposed equivalences might be broken. Utterances such as "He's a real actor" or "He's really a climber" are frequently produced when the individuals...
referred to have never acted or climbed a mountain. Of course, there's no doubt that in these cases the agentives' meanings are being metaphorically 'stretched'; the individuals involved are taken to be like actors or climbers in having qualities that could or should have made them actors or climbers. However, if we seriously thought there was an unchanging set of such qualities, such as we imagined for man-eater, then such uses could cease to be metaphorical. There are in reality no qualities of this type and in the case of human beings, where our resistance to crude reductionism is much stronger than in the case of tigers, it is rather difficult to envisage such sets in a plausible fiction. But the semantic potentiality is there.

Let's turn from agentive nouns to a similar type of adjective. At first glance any native speaker of English would probably say that self-locking means the same as locks itself, that, for example, a self-locking door has necessarily to be a door which locks itself. Self-locking can occur both attributively and predicatively. I'll look first at the attributive use. A self-locking door which doesn't work is perfectly conceivable, so indeed is a self-locking door which has never and will never work. Such a door would be one manufactured so as to lock itself but not functioning as intended. There is no doubt, I think, that we would refer to such a door as a self-locking door: the sentence This company's self-locking doors never work is perfectly acceptable. Such a door would be a self-locking door which has never and will never lock itself. There is no analytic equivalence between attributive self-locking and which locks itself. What is going on here is similar to what went on with man-eater in our science-fiction world. Attributive
adjectives, pre-modifying in the noun phrase, have a strong association with permanent and semi-permanent rather than temporary properties. Like nouns generally they are oriented towards stative meaning. Attributive self-locking thus 'attaches' itself to any permanent property, such as being of a certain manufactured type, which accounts for a door's habitually locking itself. If the permanent property is present but the actual action of locking itself is absent, the door is still a self-locking door. Yet this analysis does not of itself rule out an account of attributive self-locking in terms of analyticity. Since there is no dramatic reversal of our conceptions of what is possible, for there's nothing very surprising about a self-locking door that doesn't work, and since the notion of something's locking itself is still involved in that of an entity designed to lock itself, the analysis could be seen as 'unpacking' our original, and tacit, a priori intuitions of what attributive self-locking means. Nor does this analysis provide a necessary and sufficient condition for something's being a self-locking door, for a door which was not designed to lock itself but still, by chance, habitually did so would still clearly be a self-locking door. The analysis provides two sufficient conditions which could be regarded as analyically sufficient. Any simple equivalence between attributive self-locking and which locks itself is broken, but the role of analyticity is not automatically denied.

The similarity of the above analysis to that of man-eater has been noted. But the differences are also very great. With man-eater a man-eating brain conformation would probably constitute an a posteriori essence, but the above analysis provides only sufficient, and not
necessary and sufficient, conditions which are not obviously a posteriori. Could the stative orientation of attributive self-locking allow for an a posteriori essentialist analysis? It is frequently asserted that sentences such as All pencils are inanimate are analytically true. Putnam however argues that this is not so, that, if we discovered against all expectation that the things we call pencils are in fact animate, we would not say that the world contains no pencils but that pencils are, amazingly enough, animate. I take it that Putnam is correct. Imagine a world in which it is discovered that the things we call self-locking entities are animate, their self-locking behaviour being a primitive reflex of the kind we find amongst certain molluscs. Such entities would still be self-locking doors, even though they were animate. Someone comes across a seemingly ordinary door which does not lock itself but on analyzing it finds it to have all the non-obvious, animate, characteristics of a self-locking door: "This is a self-locking door!" she cries, quite literally. Since there is no conceptual link between the notion of something's locking itself and the criteria of animacy etc., such criteria would be non-analytically sufficient for something's being a self-locking door. Would they also be non-analytically necessary? Would we, in our science-fiction world, say, literally, of a door which locked itself but wasn't animate etc. that "This isn't really a self-locking door"? My own intuitions here are unclear, much more so than in the parallel case with man-eater. Yet, as with man-eater, this very lack of clarity makes it hard to contend that a door's locking itself is an analytically sufficient condition for its being a self-locking door, even if its not clear whether a full blown a posteriori essentialist analysis is applicable. Thus the previous paragraph's analysis is not to be seen in a priori terms, for there is no
analytic definition proper of attributive self-locking. Its analysis shows the beginning, which doubtless will never actually go any further, of an a posteriori detachment of attributive self-locking from the notion of something's locking itself.

But what of predicative self-locking? Someone could say of an animate door with a dysfunctional self-locking reflex that "This is a self-locking door," but they could not say "this door is self-locking." It's easy to see why this is so. Predicative adjectives lack the stative semantic orientation of attributive ones; thus, even if an entity has some underlying permanent property which gives rise to its dynamic properties a predicative adjective will not become 'attached' to this permanent property, and so will not be 'detached' from those properties which are dynamic. Thus if a door fails to lock itself in all circumstances it cannot be described as being self-locking. It is true that predicative self-locking is interpreted in terms of habitual aspect - the sentence *This door is usually self-locking but doesn't work at the moment* would be perfectly acceptable - but it lacks the true stative orientation of an attributive adjective. Even if a door was designed to lock itself, if it never worked it would still not be self-locking. One would never say of such a door that "This is self-locking." Predicative self-locking is not able even to reach the first stage of detachment from the dynamic property of something's locking itself which attributive self-locking actually has reached. Does this mean that predicative self-locking and locks itself are analytically equivalent?
A major objection to the notion of analytic synonymy, we've seen, is that once supposedly central cases of such synonymy are shown not to be so, all analytic judgements are called into question for you never know what may turn up. Cases where we cannot dream up any science-fiction 'revision' are seen to be simply too deeply embedded in our current conception of the world for us to think on our way round them, that conception itself being ultimately reviseable in the light of empirical evidence. Mere appeals to supposed intuitions of analyticity carry no weight. Could the assertion that predicative self-locking and locks itself are analytically equivalent be based on anything more than such an intuition? The analyses of man-eater and attributive self-locking have involved a particular application of the idea that a term's extension ultimately determines its sense, that there are no a priori limits to what we may discover about that extension. What is particular to these analyses is the role of stative orientation. When a stative word is related by lexical derivation to a dynamic phrase it is the role of that word's stative orientation in fixing its extension that makes possible its detachment from the dynamic phrase's sense, which enables the extension to ultimately determine the sense. If stative orientation is absent, as with predicative self-locking, then the extension is not fixed in a way allows the word to be detached from the dynamic phrase's sense. This is to say that the idea that predicative self-locking and locks itself are analytically equivalent is based on more than just pure intuition. Generally, extension is the ultimate determinant of sense, but we can show why this is not so in this case. There is a parallel case with deictics; these can give rise to analytic entailments because they do not have any fixed reference, any extensions discoveries about which could modify their
Judgements of analyticity, applying to very restricted classes of items, can be motivated in terms of a semantic theory. Such theories are not themselves of course infallible and so neither are the judgements of analyticity made relative to them. But if we have an intuition of seeming analytic equivalence there's seems to be nothing inconsistent in making an inevitably fallible prediction that this intuited equivalence would in fact obtain in all possible worlds. Predicative self-locking and locks itself are analytically equivalent.

The kind of contrast we've seen between attributive and predicative self-locking also has relevance to the analysis of agentive nouns. I've argued that all such agentives have a semantic potential for detachment from the dynamic senses of their lexically related phrases. However it is crucial to distinguish between the role of a noun such as climber when it is used as what we may term an agentive proper and when it is used in a nominalization such as the climber of that tree, where the internal structure of the noun phrase systematically corresponds to the structure of a clause. That there is a profound difference here is shown by the fact that although the suffix -er is highly productive it is still, as far as agentives proper are concerned, of limited productivity while in relation to nominalizations it is of virtually unlimited productivity. Thus the sentence *He was a flouter is unacceptable while He was a mere flouter of petty regulations is not. Exactly how nominalizations should be analyzed in terms of their relationship to the lexicon is beyond the scope of this article. The crucial point here is the semantic difference between words such as climber when they occur within and when they occur outside of nominalizations. Occurrence within a nominalization cancels stative
orientation. Thus while to refer to somebody as "the climber" is to pick him out, relative to some particular context, as the person who habitually climbs hills or mountains, to refer to him as "the climber of that tree" may mean no more than that he has once climbed or is now climbing the tree. Climber in a nominalization is like predicative self-locking only even more so: it may not even involve habitual aspect - the climber of a tree may or may not climb it habitually - and so is totally lacking in stative orientation. Thus, for the kind of reasons discussed in the previous paragraph, climber within a nominalization is analytically equivalent to someone who climbs something. This kind of analysis is not relevant to a compound agentive such as man-eater, since the phrase the man-eater of men is obviously unacceptable. However, it is relevant to this noun's relation to the purely attributive adjective man-eating. This of course shares the stative orientation of man-eater and so its relationship to man-eater relative to this orientation is analogous to that of predicative self-locking to locks itself relative to dynamic orientation. Man-eating tiger is thus an analytic hyponym of man-eater.

I seem to have released if not a flood at least a substantial trickle of analytic equivalences rooted in perceived relations of lexical derivation. It might indeed seem that it is only the shift from dynamic to stative meanings which in this area dissolves the bonds of analyticity. To show that this is not so I shall conclude with an example which involves no such shift, nor does it involve the noun phrase. No-one would suppose that the adjective unhappy is analytically equivalent to not happy. Since happy and unhappy are gradable antonyms, everyone would agree that it is possible to be not happy without being unhappy. However, many would argue
that unhappy is an analytic hyponym of not happy, the perceived relation of lexical derivation between the two items making this seem to them virtually self-evident. This is not so. One can easily imagine some pessimistic psychoanalytic account of being happy which would go something like this: to say of someone that they are happy is simply to say that they are unhappy in a special way. One may find such an account of what it is to be happy highly implausible, but it is not inconceivable nor does it involve any metaphorical stretching of its terms. Such an account would claim to have discovered the psychological structures underlying the state of being unhappy and to have discovered that these same structures underly that of being happy. It would claim that what differentiates being happy specifically is a set of structures in addition to those underlying being unhappy generally which disguises the presence of these latter structures. Unhappy would no longer be in a relationship of antonymy but of superordination to happy. It would therefore no longer follow that if someone was unhappy that they would be not happy: they might or they might not be. Unhappy is not an analytic hyponym of not happy. The failure of perceived relations of lexical derivation to guarantee analytic synonymy or hyponymy seems quite pervasive. The failure in this particular case is a function of a kind of argument one can imagine being mounted with regard to many pairs of gradeable antonyms: to be beautiful, it might be argued relative to the nature of the psychological states involved in the experience of beautiful and ugly things, is simply to be ugly in a special way. 20

This article has been suggestive, I hope, rather than systematic. Its main aim has been to show just how dubious judgments of analyticity in
general are by showing that they can fail in an area where their presence may seem almost self-evident. Yet it has also tried to show that one can motivate the postulation of certain, very restricted and undoubtedly trivial, classes of analytic truth. I don't have any exhaustive list of just what relations of lexical derivation do and what don't give rise to relations of analytic synonymy and/or hyponymy. But I hope I've shown that one could at least set about constructing such a list. The circumscription of classes of analytic truth has a role to play in semantic theory, but the idea that the notion of analyticity provides any kind of foundation for such a theory is untenable.
1. The standard definition of synonymy referred to here applies of course only to lexically based synonymy, hyponymy being a lexically based relation. As well as talking of synonymous words and phrases we also talk of synonymous sentences, such as Jill likes John and John Jill likes or Jill kicked the ball and The ball was kicked by Jill, which do not differ at all in terms of their lexical content but only in terms of the ordering of their elements or their grammatical structure. Synonymies, or claimed synonymies, of this type are quite beyond the scope of this article, which is an exercise in strictly lexical semantics.

2. The implications of sex change for the supposedly analytic relations between father, mother, parent, female and male are dealt with in an article by Peter Geach, which I read some years ago but which I can, unfortunately, no longer locate.

3. Geach points out that a woman who fathered children when she was a man is either a female father or someone who used to be a father but has ceased to be such without ceasing to exist. One doesn't, in the light of his linguistic intuitions, know which of these disjuncts is true but clearly one of them has to be. However, both of them would be prime candidates for analytic falsehood, as long as the topic of sex change wasn't raised.

4. Geoffrey Leech's observations on agentives such as driver, copywriter
and bed-maker have some relevance here: see Geoffrey Leech Semantics 2nd ed. (Harmondsworth: Penguin, 1981), pp.31-2. Leech notes that such nouns are not simply synonymous with phrases such as someone who makes beds but denote professional or avocational categories of people who make beds etc., membership in such a category constituting, I would point out, a semi-permanent state or property. This kind of agentive forms a distinct sub-class of agentives and shows that the relationship between an agentive and its related verbal meaning may be quite indirect. Leech, as a strong proponent of analyticity, would presumably argue that even in these cases there is still a relation of analytic hyponymy between the agentive and its partial definiens: however, I shall argue, even with more 'direct' agentives such as man-eater this relation is in fact so 'indirect' as to be non-analytic.

5. It should be pointed out that a linguistic intuition is simply a prediction about our putative linguistic behaviour in a range of possible situations, some of which may have been or will be actualized but many of which never will be. Such predictions are likely to be more or less confident and there's no obvious reason to suppose that any of them are infallible. One of the problems of theories of analyticity is to make plausible the notion of an infallible prediction.

analysis of them is an extension of his analysis of proper names:
see Saul A. Kripke, "Naming and Necessity" in Semantics of Natural
Language (Dordrecht-Holland: D. Reidel, 1972) ed. D. Davidson and

7. The qualification "probably" is used here because whether the
man-eating brain conformation would be a necessary condition of
something's being a man-eater is, we've seen, somewhat less certain
than whether it would be sufficient.

8. See Hilary Putnam, Mind, Language and Reality, p.244. Putnam mentions,
in just two sentences, word-phrase pairs such as hunter and one who
hunts, assuming that such words are transformationally, as
opposed to lexically, derived from the phrases. This transformational
approach is not widely supported now, though it is important to
distinguish between the lexical creation proper of agentives and
their occurrence in noun phrases such as "The climber of that tree."
This distinction will be discussed later.

9. Actor and possibly climber belong to the sub-class of agentives
referred to in note 4 and so would involve claims of analytic
hyponymy rather than synonymy.

10. We tend of course to avoid sentences such as This self-locking door
has never locked itself because they sound somewhat incongruous due
to the strong association of self-locking with the fact of something's
locking itself. However, this association, at least in the case of
attributive self-locking, is only a matter of association, as the sentence to which this note is appended shows. It is a sentence of the kind we usually avoid but seems perfectly justified.

11. Analyses in terms of analyticity usually employ the notion of analytic hyponymy. Since this notion involves that of a necessary condition it does not apply here, but the notion of an analytically sufficient condition is in itself perfectly coherent.

12. See Hilary Putnam, *Mind, Language and Reality*, pp. 242-245. The meaning of most terms with extension is not a function of those, sometimes mistaken, descriptions which initially help us to fix that extension but ultimately of the properties of the entities within that extension. Reference thus frequently determines sense.

13. It might be thought that there is an intrinsic conceptual link between the notion of a reflex which causes things to lock themselves and the notion of something's locking itself, but this is not so. Such a reflex could be described in electro-chemical terms which made no reference to the behaviour to which it gave rise. Its relation to that behaviour would be causal and not conceptual.

14. It is somewhat less certain, I argued, that the man-eating brain conformation would be a necessary, as opposed to sufficient, condition of something's being a man-eater. The considerably greater asymmetry, with regard to judgements of necessity and sufficiency, in the case of attributive self-locking must be due to the fact that the stative
orientation of an attributive adjective is inevitably less than that of a noun, and so the adjective's 'attachment' to any postulated, underlying and permanent properties, here animacy etc., is somewhat less than a noun's.

15. Note, by the way, the use in this sentence of attributive self-locking in the phrase dysfunctional self-locking reflex. It is perfectly natural and cannot, in combination with dysfunctional, be analytically synonymous with which locks itself. Note also that the sentence *The dysfunctional reflex is self-locking is totally unacceptable since it involves a selection restriction violation - (I use the latter phrase without assuming that such 'restrictions' have any basis in analyticity). Attributive and predicative self-locking relate to reflex in totally different ways.

16. Crucially, to elaborate a point made in note 12, descriptions originally used in helping to fix a term's extension may eventually be seen to be false of at least some of the entities in that extension. Thus the description something which eats men certainly plays an indispensable role in fixing the extension of man-eater but, we've seen, we could still conclude that there are man-eaters of whom this description is false.

17. The kind of entailment I have in mind is that which holds between a token of the sentence It rained yesterday uttered on February 25, 1989 and all tokens of the sentence It rained on February 24, 1989 uttered after February 24, 1989. I assume, following Quine,


19. The radical difference between the two different contexts of climber is further shown by the fact that the agentive proper displays the typically lexical phenomenon of a narrowing of meaning relative to the phrase someone climbs something. A climber climbs, specifically, mountains, hills or cliffs. Climber in the nominalization displays no such narrowing of meaning and so relates directly to the semantics of the verb climb.

20. Interestingly, this kind of argument doesn't seem to be easily available for pairs of binary antonyms. One easily imagine arguing that to be alive is merely a special case of being dead, but in any practically imaginable case this would surely involve a metaphorical stretching of the sense of dead. This does not mean that binary oppositions are based in analyticity, for there are no factors involved like those in the case of predicative self-locking and, if the approach of this article is correct, it is massively implausible to suppose that so central a semantic relationship as that of binary anonymity could as such have an analytic basis. Such
Oppositions are simply too deeply embedded in our, ultimately empirical, conception of the world for us easily to think our way round them. I don't know exactly why it is easier to dismantle the oppositions of gradeable as opposed to binary antonyms, though such oppositions are in a general way less 'sharp' and absolute.