Genius and Genus: How to Name Things with Metaphors

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A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
in
Philosophy

The Chinese University of Hong Kong
February 2014

Abstract of thesis entitled:

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for the Degree of Doctor of Philosophy in Philosophy

at the Chinese University of Hong Kong in February 2014

This study approaches metaphor from the perspective of modal semantics, and aims at defending, clarifying, and constraining an intuitive idea of this linguistic phenomenon based on its instrumental function in language evolution. The central claim is that a metaphorical utterance characteristically presumes a naming ceremony under a conventional word for a new category. To understand the potential of metaphorical re-dubbing of conventional terms, I will firstly appeal to Kripke's classic modal argument, and examine the semantic plasticity of natural kind terms, which are typically used as vehicles for metaphorical expressions. The work will proceed to defend the naming function of metaphor by criticizing the classic stance against semantic understanding of metaphor, namely the Pragmatist approach. Restricting the possibility of semantic discussion only to conventionalized vocabulary, the Pragmatists treat the extra message in metaphor either as a sort of conversational implicature (Grice) or speaker meaning (Searle), which is still expressible in conventional vocabulary, or as some kind of extra-linguistic force (Davidson). I will argue that the treatment of Grice and Searle fails to appreciate the categorical incompatibility lying behind metaphors, and thus fails to see that the meaning of metaphorical expressions is irreducible to conventional vocabulary. Moreover, all of the Pragmatists fail also to account for an apparent semantic behavior of metaphors, namely, their possible truth assumed by participants in conversations. I will then try to constrain the proper semantic understanding of metaphor by distinguishing it from the Cognitivist view represented by Black and Lakoff, which identifies the meaning of metaphors with the content resulted from various sorts of analogical cognition. I will argue that, theoretically speaking, analogical cognition is neither necessary nor sufficient in order for a metaphorical expression to be uttered. The final portion of this work will be devoted to developing a two-dimensional framework to capture the modal relation between the meanings of an expression

token under metaphorical and conventional interpretations, respectively. In doing so, this work will also criticize a current view represented by Stern, which, by treating metaphors as a special sort of indexical expressions, also fails to explain the evolutional function of metaphor.

論文摘要

天才物類：論以喻名事

鄧揚舟

　　本研究旨在以模態語義論之角度分析隱喻的語言特性，並探討其在語言演化中的作用。作者認為，隱喻言語的發生通常預含有命名行為，即以現有之舊詞指命新的事物範疇，且這類以喻名事乃是自然類詞彙的基本命名方式。為探討自然類詞彙的語義特性，本研究首先藉回顧 Kripke 及 Putnam 有關經典論述，論述自然類詞彙的外延在其命名之初具有不可確定性，因而其本身就便於以譬喻的方式改變外延。其次作者批評兩家以語用角度研究隱喻的經典理論即 Grice 即 Davidson，指出其理論未能解決隱喻命題的真值問題。關於認知角度方面的理論，本研究亦批評 Black 及 Lakoff 等人的成果。作者論述，這類理論誇大隱喻的超語言功能，混淆了語義與一般認知的界限。最後，作者以模態語義理論中的二維語義框架界定隱喻的語義特性。

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Metaphor is the application of an alien name by transference either from genus to species, or from species to genus, or from species to species, or by analogy, that is, proportion.

It is the mark of genius.

— Aristotle**,** *Poetics*

PREFACE

Contemporary scholarship on metaphor has been accompanied by two general tendencies. On the one hand there is the prevalent belief in a substantial cognitive function of this linguistic device, and on the other there is a lack of a fruitful account for its instrumental use in growing vocabularies of natural language despite the universal acknowledgement of such a use. In the discipline of cognitive linguistics, where metaphor is one of the central themes of study, the belief in its cognitive function has been a basic tenet. In one of the pioneering works of this discipline, Lakoff and Johnson (1980) claim that metaphor allows speakers to use "one domain of experience" (under the metaphorical vehicle term in an expression) to cognize another domain (under the subject term). Philosophically, this claim is predicted by Black (1954), now a classic paper in philosophy of language. According to Black's "interaction view", cognitive function is an intrinsic property of metaphor, since it offers novel ways for speakers to organize the cognitive information encoded under the subject and predicate terms in an expression. [1]

It was because of a bias toward this belief that I accidentally came across the study of metaphor. Several years ago, a chance of attending Prof. Kwan Tze-wan's graduate seminar on Kant's *Critique of the Power of Judgment* intrigued my interest in Kant's theory of reflective judgment, and by then I planned to write a doctoral thesis on this subject. According to Kant, reflective judgment is the type of judgment to search the universal (concepts) from the particular data. He does not hold that this kind of judgment can be of constructively cognitive significance, since reflective judgment itself does not yield propositions. But Kant does believe that it is of important regulative use in some human cognitive process. In particular, reflective judgment plays an important role in analogical cognition, especially in what he calls the "symbolic" cognition, where a sensual, easily approached data is exploited to throw light to an abstract and conceptual idea. At that time, I believed that this Kantian process can be better

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[1] See Chapter IV of the present work for detailed review and analysis of both of the works.

explained by invoking contemporary insights in cognitive linguistics, and it was for this purpose that I started to read the literature of metaphor, including works from both philosophers of language and linguists.

A later exposure to contemporary modal semantics, in particular the work of Kripke (1972), however, made me skeptical about this project. Generally speaking, my doubt is not about whether metaphor can initiate some cognitive process—empirically there is no doubt about this—but whether this cognitive process, in the form of analogy, structural mapping, or whatever, is something *intrinsic* to the linguistic phenomenon itself. If it does not, then perhaps Lakoff and Black, as well as numerous scholars who applaud the cognitive feat of metaphor, would have made a serious confusion between what is semantic specifically and what is cognitive generally. One of the big insights in Kripke's work is that after careful analysis of our modal intuition, the traditional belief can be showed to be problematic that for general terms and proper names word meaning can be equated to some sort of Fregean sense. Kripke does not talk about metaphor, but I believe that his insight can be extended to this linguistic phenomenon, and if my effort is successful, then I can show that much of the contemporary optimistic view of the cognitive function of metaphor is guilty of the traditional problem of the meaning of general terms that Kripke and Post-Kripkean philosophers criticized.

Being excited by this idea, I then decided to give up the original plan of writing on Kant, and to switch to a topic in the linguistic nature of metaphor. My guiding motivation was to study metaphor's semantic nature, and in doing so to get a proper treatment to the relation between it and those contingent cognitive properties that theorists have frequently been associating with it. In this regard, I find the work of Davidson (1978) to be very inspiring. Davidson forcefully shows that it is problematic to take any cognition as the intrinsic property of a metaphorical expression. But at the same time, he also denies that words under metaphorical use can possess any new and special meaning. This latter claim seems to make his view of metaphor inadequate in accounting for

the evolutional function of metaphor, namely its use in coining new words for natural language.

A sensible way to avoid this inadequacy is to recognize that in metaphorical utterance, there is a naming speech act happening, perhaps implicitly, for the word under metaphorical use, which is also assumed by both its speaker and audience if the expression is successfully apprehended. In this regards, again, Kripke's idea of the "naming ceremony" of rigid terms, in particular the naming of general natural kind, is a proper insight to invoke. One of the aims of my project is therefore to construct a framework to evaluate the semantic property of a metaphorical expression under its new context where the metaphorically named term acquires its new meaning. Ever since Aristotle, the use of metaphor had been credited as a sign of "genius", because theorists believed that its use usually occasions some special and outstanding cognitive power. My guiding idea, however, is that the real use of metaphor in human cognition does not lie in some *constructive* cognitive process, but rather in an *instrumental* sense, namely, its marking of some new ways of cutting the joint of nature, by naming a new category. This is the origin of the title of the present work: "genius and genus".

I. METAPHOR AND NAMING

Suppose, in the near future, inhabitants of this planet deplete the finite resources on earth. Following Stephen Hawking's thrilling prophesy they decide to abandon their mother planet and colonize a congenial and new one in outer space.[1] One of the urgent tasks, of course, is to find, if available at all, massive evidence of water. Suppose, further, one of the many desperate aircrafts launched by the Chinese PLA gets back a liquid sample from somewhere. Chemical laboratory work reveals that it has all the properties of water, being colorless, odorless, tasteless, evaporable, life-supporting and so on, except that its chemical composition is not H_2O, but something with a bizarre structure abbreviated as "XYZ". Anyhow, this is good news, too good to be true for the earthlings. After all the research work is done and confirmed, scientists decide to firework the gospel to the world at their earliest convenience, but before that they may sit down, probably with politicians but not philosophers nor linguists, to deal with an impatient and minor problem —what is the blessed manna is to be worded, or, whether it should be called "water".

If the liquid is not water, it should not be called "water". This is a truism, but a helpless one. Scientists say that the liquid is not water since it does not satisfy the essential feature of water, i.e. the H_2O structure. But politicians probably would not think along this vein. With sensible prudence they might question, "Which is more essential to water, to satisfy your test tube, or to satisfy our throat?" The festive quarrel could be impressive if other people with other perspectives, the bishop and commercial sponsors for instance, are invited in. But ultimately this would be a trivial quarreling—trivial because it is largely a verbal dispute, not a factual one, as the factual issue has already been solved and articulated in the chemical language without discord. More specifically, it is an explicitly verbal dispute, a professed *naming ceremony*, for a novel thing on behalf of the whole community. The trouble behind the debate is that naming as such is ultimately an arbitrary business, subject less to rules than to perspectives. No matter what the finalized name would be, it would largely be a

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[1] "Stephen Hawking: Mankind must leave Earth or face extinction",
http://digitaljournal.com/article/295669

matter of decision, perhaps conspiracy among these VIPs, rather than of persuasion on any intrinsic merits, cognitive, linguistic, or whatever .

Two natural compromises would be these. First, a brand new name, say "wuter" (or "wator", "weter", "watress", etc.), is coined, but after this is done, the emphasis is annexed by politicians that wuter is very much like water in such and such significant aspects, so the risk of parliamentary mockery among other things can be minimized. Or second, the stuff may simply be called "water", but scientists, out of scholastic conscience, would let people know that it is not "water" in the normal sense any more, as the extension of the word would be substantially changed thereafter. For reasons that will be apparent later, it should be noticed that, logically and (in our artificial case) temporally, the change of meaning is *prior to* the utterance of the statement, and meanwhile the utterance is the first event to put the word with the new meaning into use. Anyway, in either of the cases, the earthlings' English vocabulary will be enriched with a *neology*, though in different senses of the term. In the case of "wuter", they are burdened with a new dictionary entry, plus a *simile* obliged by politicians. And in the case of "water", an old and familiar word is re-cycled, re-dubbed, and re-accommodated into the vocabulary. What happens, directly, is a case of *metaphor*.

Surely it sounds unceremonious to invoke a figurative trope on such a ceremonious event, but to declare, "We have discovered water on a new planet," on the knowledge that that water is not this water and this not that, is indeed a standard case of metaphor. According to the venerable definition from Aristotle (1986), metaphor is "*the application of an alien name by transference either from genus to species, or from species to genus, or from species to species, or by analogy, that is, proportion*".[1] Aristotle, had he been informed of modern chemistry, would have classified our case as a species-to-genus transference, as the name of water is here invoked to stand for a general category that contains the unexpected new sibling that nudges into the family.

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[1] OED: Origin of "Metaphor": "From French *métaphore*, via Latin from Greek *metaphora*, from metapherein, 'to transfer'."

[1] Not exclusively, it happens also to be a case of metaphor by "analogy" or "proportion", or what contemporary cognitive linguists call "structure-mapping" (e.g. Gentner & Bowdle, 2008). XYZ shares many attributes with H_2O, and the complex of relations it stands with respect to speakers' everyday life is in many ways structurally analogical to that of H_2O. For lack of a "proper" name for this hitherto unnamed substance, the creative speaker then carry out an expedient, or a "studied category mistake" as Goodman (1976) nicely puts it, by transferring the "proper" name of "water" to fill the vocabulary gap . [2] In a way Aristotle even foresaw the point of contention between our politicians and scientists, and so he proposed to allow one to "apply an alien term, and then deny of that term one of its proper attributes". Hence one can rephrase the gospel in the aforementioned story as, "We have discovered non-H_2O water there!"—an awkward way of wording, but happy for both scientists and politicians for its being less misleading on the one hand and still appeasing on the other.

Aristotle's short discussion of metaphor thus predicated a developmental function to it, the function to occasion change of word meaning in natural language, or rather explicitly, to make new words by lashing old ones. It is nevertheless suspicious to what extent he took this function seriously. Like many contemporary writers on the topic, he passionately praised metaphor, viewing its use as a sign of "genius" and "by far the greatest thing" for poets. Like many contemporary writers as well, his praise of it was grounded on speakers' extraordinary "perception of similarities" and solution of "riddles" in its employment. In other words, it may be the acrobatic use of some general cognitive ability, say perception or imagination, which accompanies the occurrence of metaphorical utterance, rather than the linguistic performance *per se*, that had aroused Aristotle's high esteem. Seen from a linguistic point of view, Aristotle took metaphor primarily as a stylistic device, which

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[1] Ignore the possible and trivial verbal dispute that the case could also be understood as a species-to-species one, namely,　"water" as the name of H_2O is transferred on behalf of XYZ.

[2] " For some of the terms of the proportion there is at times no word in existence; still the metaphor may be used. For instance, to scatter seed is called sowing, but the action of the sun in scattering his rays is nameless. Still this process bears to the sun the same relation as sowing to the seed. Hence the expression of the poet 'sowing the god-created light' " (Aristotle, 2008).

makes a poem or prose charming and clear if used properly, and awkward and misleading if not (Aristotle, 2010). For this purpose, metaphor is classified by him with "strange", "lengthened", "contracted", "altered", and most important, with "newly-coined" words (Aristotle, 2008), namely those that have never been in local use but are adopted by speakers from novel resources (thus our "wuter" is a good candidate). This context suggests that metaphor's enrichments of vocabulary are probably *accidental* and superficial events to him.

A similar yet more complicated stance has been inherited by contemporary philosophy of metaphor. With little exception, philosophers on the topic observe the conspicuous phenomenon of "dead (or ' frozen ') metaphors" that is to say, historically speaking many literally used words in our daily lives are corpses of metaphors, which, after repetitive, extensive, and popular use, have been registered into the conventional vocabulary. Based on this observation, Quine (1978) even went further than Aristotle to speculate that metaphor is the means that "governs" the growth of natural language and our acquisition of it. This was partially substantiated by Boyd (1979), who drew our attention to the very important role of metaphor in the expansion of scientific vocabulary. Boyd argues that metaphor is one of the devices available to the scientific community to accomplish the task of accommodation of language to the causal structure of the world, by introducing terminology, and modifying usage of existing terminology, so that language can help scientists to "cut the world at its joints". Moreover, terminologies introduced as such can be constructive, rather than merely exegetical, in expressing theoretical claims. These ideas were echoed, with some minor discrepancy, by Kuhn (1979, 1990), who claims that scientific vocabularies grow by "metaphorical expansion", in the manner of metaphorical redubbing of old terms.

Despite all this encouraging recognition of the practical significance of metaphor in language evolution, philosophers characteristically have been shy to talk about it in their study of the linguistic nature of real metaphorical expressions *per se*. Two of the most influential theorists of metaphor, Black (1954) and Davidson (1978), for instance, both have dismissed semantic evolution as irrelevant in their analyses,

though for different reasons. Black did understand metaphor as a "semantic" subject matter, and he appealed to the notion of a dependent, "interactive" meaning, as the "metaphorical meaning", to account for its special expressive force, but he is very equivocal as to whether or not this special "meaning" can be institutionalized into an integral, clear-cut, robust semantic unit. More likely it was intended by him to be open, instable, and indefinable, and this is what he meant by the key term of "interaction". In addition, he explicitly held the Aristotelian belief that the use of metaphor to remedy the gap of vocabulary is a case of "catachresis" or merely accidental event. Davidson, on the other hand, argued for a radical pragmatic understanding of metaphor as a matter purely of "language use", rather than of meaning. For him the verbal meaning of a metaphorically used expression is just its meaning in the literal sense and nothing more. In other words, if metaphor adds anything to the literal sense of an expression, it should be something pre-linguistic, perhaps in the form of aesthetic "intimacy" as he says. This alone suffices to rule out the chance to discuss whatever further semantic issues in the analysis of real time metaphorical utterances.

However, both Black (1979) and Davidson noticed the "dead metaphor" phenomenon, and both made it clear that dead metaphors are not metaphors any longer, but are rather literal items converted. This leaves room for a naive yet demanding question: if some (or most?) of the words "literally" used in language are to be traced to metaphorical origins, and if the conversions toward the new literal meanings were not accomplished during the original metaphorical utterances, then when and how were they achieved? Dead metaphors are *prima facie* social-historical phenomena, but one needs to postulate an in-principle mechanism behind the empirical varieties that governs the semantic change. The conversion of the semantic property of a metaphorical word may, or may not, be an event or process posterior to the original metaphorical utterance. But come what may, for each word that is converted one should postulate that sometime in the process there should be a qualitative change through which all these delicate varieties of "interactive meaning", "aesthetic intimacy", or whatever, are institutionalized, so that the new word is dubbed. Theoretically speaking, probably only after this crucial point is fulfilled can

the social-historical effect of dead metaphors come around, inculcating the infant use of the new word with the reformed meaning to more and more speakers in more and more similar contexts. What are the factors that effectuate this conversion before the inculcation? How and when is the new literal expression uttered and accepted? What is the difference between it and its unconverted precedent? All these questions have been set aside Black's and Davidson's acknowledgment of dead metaphors. Quine (1960) likens the system of scientific statements to a boat to be rebuilt plank by plank while the crew is staying afloat on it; Black and Davidson suggest that the reparation of the planks of this boat is moonlighted by an invisible hand.

Well, there may be an invisible hand, according to the view in the present work, but only insofar as it is controlled by speakers of metaphors themselves. The answer I will hypothesize and elaborate for the questions above is simple, namely, the conversion happens when a metaphorical expression happens. Metaphor is *language under evolution*, or, to exploit the biological metaphor further, it is rather *language under genetic mutation*. A metaphorical expression characteristically is an *emergent* linguistic event which marks the nativity of a new and integral semantic unit, a new word or a phrase in order to deal with a new linguistic environment or context of speech. In other words, a speaker produces a metaphorical expression characteristically because she is in dearth of vocabulary, so that the thing she wants to tell cannot be expressed by all the words at her disposal in the conversation. This is perhaps because her or her community's vocabulary is too limited, or perhaps her thought is too novel or delicate, or perhaps, in some exceptional cases, she is in a temporary retrieving difficulty or rhapsody. So she tailors a convenient item out of the conventional vocabulary by using it to name an *ad hoc* possible category, and assumes it in the delivery of the statement. A similar, but passive, experience happens to her cooperative audience, if the communication is successful. The speaker and her audience contrive a linguistic community, and make it a *convention* that the word is to have this meaning at this context in this conversation. As such, a metaphor "dies" at the time it is spoken and understood, and it dies again and again in a general community if the new word is to survive.

Metaphors name things, though more often than not they are not meant to do so. In essence, therefore, most mundane metaphorical expressions in our daily talks are like the "water" talk in our starting fiction, in that they are serious assertive statements usually meant as true, accompanied by a naming ceremony of a new category. The only conspicuous difference is that in real-time conversations the naming ceremony, as a necessary and preparative speech act, is nevertheless tacitly assumed, usually not even realized by speakers and their audience. During the speech the speaker means her statement, not the naming ceremony, but inevitably the naming ceremony is presumed in order for her meaning to be understood. What matters is that in delivering and understanding a metaphorical interpretation, the speaker and her audience do not seek to suggest, or be suggested with, something extra to the statement containing the metaphorical term, nor to appeal to any dubious, half-baked "metaphorical meaning" parasitic upon it. Instead, they mean by their metaphors "what the words, in their most literal interpretation, mean, and nothing more"(Davidson, 1978). There is no conference, baptism, boat garage or whatever to register the naming job, since people habitually name things in talks without interrupting talks. They perhaps do not even know the exact extension of the thing so named, except that there is something there to be talk about. They talk *about* it because they are interested in it or want to know about it, with a name first. Friendship can precede business, and "what comes as a subsequent refinement is rather cognitive discourse itself, at its most dryly *literal* (Quine, 1978, italic mine). "

This, however, is not the full answer. Viewing metaphors as assertive statements loaded with implicit naming ceremonies for new semantic units can nicely account for their developmental function for language, but immediately, a logical problem arises. What is the relation between these new words (and the new propositions containing them) with their parental and conventional ones that bear the same names (and the parental propositions containing them)? A major reason for philosophical theorists to be evasive on the existence of a new semantic unit in metaphorical expressions is that to admit two distinctive meanings on a single word, or two distinctive words under a single verbal token, and two propositions with probably distinctive truth values under a single statement, is a case of flagrant inconsistency.

So the common strategy to play safe in analysis is to stick to the official, well-established semantic property of the word and statement at issue, and append something extra onto it. The intuition behind such analyses, to use the phrasing from Searle (1979), is that metaphorical expressions enable speakers to utter something and meanwhile "mean" (in the wildest sense of the term) something more than what the utterances can do with their conventional senses. What is peculiar is that successful delivery and understanding of this "something more" depends on the "literal meaning", and, theoretically more important, it is nevertheless very difficult, if at all possible, to paraphrase this "something more" with existing vocabularies, more so when the metaphor is apt. Traditional philosophizing on metaphor therefore has focused on the nature of this flatly added and somewhat mystified "metaphorical extra", debating about whether it is an extra-linguitic unit or a quasi-semantic one, as mentioned before.

In the literature, the linguist Glucksberg (2001, 2008) proposes a double meaning view of metaphor which is at least superficially similar to what I stated above, and he tries to answer the above question with his notion of "dual reference". A term can potentially be used to refer to more than one category, and metaphorical expressions, according to him, are one of the uses of this referring strategy. In metaphorical statements the vehicle terms are used to refer to a more inclusive category to which its conventional reference is a member. "Shark" in "The lawyer is a shark" is used to refer, say, to the category of aggressive things in general, and "water" to the category containing both H_2O and XYZ in our science fiction. But from a logical point of view, this proposal serves only to air-dry the problem instead of solving it. What is at issue is that given the simultaneous existence of two distinctive semantic units, both capable of being semantically legitimatized and nevertheless each being related to the other as such, one and only one of them will be read out in a scenario depending on whether the scenario is "literal" or "metaphorical". Socrates can be the mentor of several boys, commanding a dual or multiple mentorship, but philosophical freshmen are more curious on how he would coordinate the inconvenient relation complex, given that he can only be one mentor committed to one boy for any given social scenario.

A plausible way to circumvent the inconsistency is to understand the relation between the two semantic units under the same word token, if there is a new unit anyway, as well as that between the two propositions at issue, as a dynamic or *modal* one. [1] Basically, the assumption is that there are two *possible interpretations* of the same word token at issue; one of them has the meaning actually used in the conventional way, with the other bearing the new meaning intended by the speaker and accepted by her audience at the proper metaphorical context. The two semantic units are usually similar to each other, but they may be still incompatible. In any case, they represent two *possible categorizations* of a piece of the world, cutting it at different "joints". In the same way, under the same statement token, there are two possible propositions, the conventional one that is easily understood as "literal", and the novel one understood as "metaphorical". The "literal" one would usually be false, flagrantly so, since it usually states a category mistake (e.g., lawyers are sharks) as evaluated in the conventional context, and the "metaphorical" one, evaluated in the new context, may be true or false, as a normal contingent statement would be, but anyway it is meant by the speaker as true, as any sincerely uttered statement should be.

A Misfire of communication would occur when the sincere speaker means the new proposition while her sincere audience interprets her utterance in the conventional way, or in some other new possible way. This is likely to happen when the context is loose and uninformative, or the metaphorical expression itself is not *apt*. In this sense, our example in the fiction, "We've discovered water there," is a typical yet still notoriously ambiguous metaphor if it is starkly stated as such without further contextual information being made transparent. In such cases, remedial measures are needed to constrain the interpretation of the expression. Either external knowledge, such as that H_2O is not the only natural liquid to drink or that it is unlikely to discover H_2O in an alien environment, should be made salient in the background, or qualifying devices, such as "new", "non-H_2O" or the like, should

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[1] To do justice to him, a modal relation between the literal meaning and possible metaphorical meaning has been considered by Davidson (1979), but soon rejected, for he did not consider it in terms of the naming act. More on this later.

be placed around the metaphorical vehicle, so as to orient the reading in the intended way. So-called apt metaphors, therefore, are likely to be those which best constrain the interpretation of themselves toward metaphorical direction. That is, the vehicle term is worded in a way that, on the one hand the literal reading is "false enough"(too false to be accepted in the conventional way) while on the other hand the target reading is narrowly channeled in a certain way. In short, apt metaphors *define* the new categories well. This nevertheless does not always mean that they are the only "good" ones, since goodness is a loose standard, and, after all, the world to be represented by language is awkward more often than not.

So far this is only a programmatic outline of the framework for analyzing the linguistic properties of metaphor. But it is informative enough at the moment that studying metaphorical semantics in this way is to bridge it, in spirit and in terminology, with a new tendency in philosophy of language, namely with what is called "possible-world semantics". More narrowly, it is to bridge it with "two-dimensional" semantics, as the framework suggested above is reminiscent of the two-dimensional "meta-semantic" matrix introduced by Stalnaker (1978, 1970). Metaphor is indeed a *real* subject matter for possible-world semantics, and possible-world semantics can be more interesting when it shakes off unearthly thought experiments to cope with down-to-earth linguistic weirdos like metaphor. Metaphor is one of the major strategies by which speakers of highly constrained natural languages tacitly utilize their modal intuitions, so as to maximize the economics of world representation. Each metaphorical expression is characteristically a two-trick pony. Explicitly it represents the world in a certain way, by stating something about it. Stealthily and before the representation, it defines the world in a new possible way by re-grouping a piece of stuff with its naming function. Whether or not the recategorized stuff is newly discovered, the world is changed, since a world is a world under categorization. [1] Be that as it may, the speaker stands in a two-dimensional "trans-world" relation to it: he may read it in the new possible scenario of the world, or in the old one, and in each of the worlds he may buy it, or

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[1] Kripke (1972,p 267) says, "A possible world is given by the descriptive conditions we associate with it". Re-categorization is one way to change such descriptive conditions.

kick it away.

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I have now introduced the motivations, major claims and theoretical framework of the present study, which will be elaborated in the remainder of the work. The first problem I will deal with in the next chapter is a preparatory one. If metaphors involve change of word meaning, and at the same time metaphor is such a "ubiquitous" (Lakoff & Johnson, 1980) linguistic phenomenon, then what kinds of words are the most susceptible ones, and what is the disposition that enables them to be semantically transferable? It seems that natural kind terms, and other terms used in the manner of natural kind terms, are the most metaphorical ones. Kripke's (1972) and Putnam's (1977a, 1977b) famous arguments in standard possible-world semantics show that the semantic property of natural kind terms should be couched in an ostensive naming mechanism. I will firstly rehearse this argument by harassing the term "water" again. Then I will play a little further with the argument. One of the implications of the Kripkean and Putnam's arguments, though not so much noticed by themselves, is that the extensions of the ostensive naming of general terms are possibly indeterminable, and this indeterminacy is systematically presented not only in the initial naming of things, but also in language acquisition, language coordination and in verbal evolution. The extension and meaning of these terms are determinable only when they are relativized to specific contexts or "possible worlds", and any shift in context of speech may result in transference of word meaning; this contextualized plasticity is the theoretical origin of metaphor. With this idea of context shift in hand, I will try to show that the deep-rooted dichotomy between the literal and metaphorical meanings of words is actually not a semantic but a pragmatic or meta-semantic one, that is, metaphorical meaning is *ad hoc literal* meaning, the meaning of words themselves albeit in a different and metaphorical context.

From the third chapter onwards I will start some polemic argumentations, firstly against a squarely antagonistic but rigorously entrenched position, i.e. the Pragmatist view of metaphor, traceable to Grice (1975) , elaborated by Searle (1979) and with

some variation by Davidson (1978). The Pragmatists deny that metaphor is a matter of semantics, as they insist that the verbal meaning of the statement at issue remains intact, usually containing an obviously false proposition. This obvious falsity impels the listener to search for something beyond the statement's verbal meaning, in the form of "speaker's meaning" (Searle) or "conversational implicature" (Grice), or something simply pre-linguistic (Davidson). The general weakness of this approach, I will argue, is its inability to explain the fact that on many occasions metaphorical expressions are not meant and interpreted as literally false, but rather as true, and it is on the assumption of their truth that people continue to converse with them in structural talks including serious scientific and intellectual discourses. [1] Given that in some contexts metaphor can indeed be used to suggest extra-linguistic contents, as virtually all statements are more or less capable of doing, the Pragmatists still fail to see its other job, namely the naming function done within speech. As hinted before, this naming speech act usually tends to be ignored in conversations because it is usually tacitly assumed. More specially, it is a *reflective* act, in that when it happens, language is not used to perform any normal illocutionary duties in Austin's classic classification (Austin, 1962), but rather to service and accommodate itself to the conversational context. The root source of the problematic of the Pragmatists, in short, lies in their failure to recognize the *pragmatic ambiguity* of metaphorical speech, and, unfortunately, they may have missed the major side of this ambiguity.

Another major view, or army of views, to be examined in the fourth chapter, is the Cognitivist ones, shared to various degrees in contemporary literature by Black (1954), Goodman (1976; 1978), Beardsley (1962), Hessy (1988) , Glucksberg (2001; 2008), Gentner (1988; 2008), Ricoeur (1978), and an endless list of "cognitive linguists" after Lakoff and Johnson (1980). Following Aristotle, these writers tend to credit metaphors with some sort of cognitive function in the constructive or at least heuristic sense, such as semantic and cognitive "interaction" (Black, Goodman,

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[1] To raise a tricky example for the moment, one may ask: does Davidson himself mean it as false when he claims that metaphor is a matter not of meaning but of "intimacy"(note that he quotes this from Heraclitus, "It does not say and it does not hide, it intimates ")? This is the conclusive claim of his paper that cries for the recognition of truth from readers.

Beardsley), "modeling" (Black, Hessy, Lakoff), and "mapping" (Gentner, Lakoff) to take a few examples, and they believe more or less that metaphor is uniquely powerful in exercising these functions compared with other tropes. [1] Anticlimactically, I will argue that behind these Cognitivist felicitations a basic distinction has been overlooked, one between language as a symbolic system and what it symbolizes. I will insist that metaphor is merely a linguistic phenomenon in the traditional sense, and linguistically speaking the unique and intrinsic feature of it, as both the etymological root of "metaphor" and the first half of the Aristotelian definition bring out, is the "transference" of words. Transference of words is usually or almost always accompanied by creative exercise of some analogical cognition fashionably named by writers in this or that way. However, this relation is merely of contingent and empirical significance. Taking a Kripkean strategy, I shall argue that, strictly speaking, analogical cognition neither necessarily nor sufficiently has to be present when a metaphorical expression is uttered. It is not sufficient because other tropes like simile also occasion it. It is not necessary because metaphor can happen even when speakers in their linguistic behavior do not realize the analogical subject at all. And this is why, ironically, metaphor is usually exclaimed by Cognitivists for its capacity to "create" similarities for things [2]—seen otherwise, it is not metaphors that create similarities, but instead listeners do so when there is no similarity in utterance! Speaking analogically, many a Cognitivist confuses maintenance of a boat with improvement of the art of sailing. The major cognitive function of metaphor lies in the maintenance of language – a function that is not "constructive" nor "heuristic" for cognition, but "instrumental" in the literal sense of the term.

Having made these two polemical criticisms, I will carry out the constructive part of my work in the last chapter. By reinterpreting Stalnaker's meta-semantic matrix, I will spell out a framework to capture the modal-semantic relation between

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[1] Thanks to my supervisor, Prof. Kwan Tze-wan, for bringing to my consciousness another classic treatise of the analogical view of metaphor besides Aristotle's, namely, Cajetan's "The Analogy of Names" (1953). Cognitive linguists owe a great debt to this highly original Medieval work, especially when they talk in substantial length about "mapping" and "modeling" of metaphors.

[2] E.g., Black (1954), "It would be more illuminating in some of these cases to say that the metaphor *creates* the similarity than to say that it formulates some similarity antecedently existing."

metaphorically named words and their literal counterparts, as well as that between metaphorically interpreted propositions and conventionally interpreted ones, under the same linguistic tokens. Stalnaker's matrix was originally intended, of course, not to capture the semantic feature of metaphorical conversations in particular, but to characterize what is communicated when conversational partners are partially mistaken about the literal meaning of the sentences at work, due to their ignorance of contextual information. Given that the naming function is recognized in metaphorical expressions, it is very natural to adapt his matrix to explaining the meanings of metaphorical conversations. This is because there can also be systematic miscommunication (what I called "misfire" above) in metaphorical conversations as there are two possible propositions at work, and different participants of conversations may take in different propositions depending on how they deal with the contextual parameters. My working idea here is to understand the two meanings of a metaphorical term as two functional intensions, which map two different possible worlds (the conventionally categorized and the metaphorically re-categorized) into different extensions of the term. A similar matrix will be worked out on the statement level, only that the resulted values of the semantic mapping will be truth values.

In this last chapter, it is also necessary to show appreciation and, more importantly, disagreement to a current view in the philosophical study of metaphor presented by Stern (1985, 2000) and Leezenberg (2001). Inspired by Kaplan's influential works (1978, 1989) on the semantic nature of demonstratives, this view proposes to understand metaphors as a special kind of demonstrative indexicals. Roughly, the idea is that, like demonstrative expressions, metaphorical expressions also have the disposition to adapt themselves to various contexts ("possible world" of conversations) to refer to various objects, and therefore their semantic contents are dependent on the contexts. Both this foregoing view and my own share a possible-world framework, as Kaplan's interpretation of demonstratives is in principle compatible with Stalnaker's matrix. However, my lamentation is that the framework is used wrong-headedly by Stern and Leezenburg , and this has resulted in their making obviously counter-intuitive claims. As I will argue subsequently,

metaphors cannot be understood as demonstratives, in the same sense that evolution cannot be understood as adaptation alone. Despite their adaptive potentials, the dictionary meanings (or their "characters" in Kaplan's jargon) of demonstratives, indeed of all indexical expressions, which govern how they refer to their subject matters in various contexts, are always constant. But this constancy does not exist for metaphors, because metaphors adapt themselves by naming new categories *hic et nunc*, and in so doing they re-baptize the "characters" of words and change their dictionary meanings, a feat that demonstratives can never do. Dead metaphors are there everywhere and everywhen, while indexicals like "that" and "you" and their kin have been and will still be keeping their semantic chastity forever in spite of their worldly propensity.

II. THE ORIGIN OF METAPHOR

Metaphor transfers and updates words. From a macroscopic point of view, this could be deceptively obvious. It is a truism in linguistics that natural languages are highly constrained symbolic systems, and one of the constraints comes from semantic aspects. After the vocabulary of a language is established and well developed, the motivations to reduce cognitive burdens, above all memorial ones, impel speakers to exploit old words in order to mark new information and name new things if possible. Human knowledge expands much more rapidly than human languages, at least superficially so. New things are discovered everyday, but the vocabulary of every extant language on earth has been relatively stable for thousands of years, and will probably be so for years to come. On a similar note, an average native speaker establishes her repertoire, of more or less thousands of words, at a certain stage of her course of learning and throughout the rest of her life her repertoire is relatively stable despite the fact that her knowledge of the world will expand constantly. To cope with cognitive expansion she has to transfer or *metaphorize* her words repeatedly, and this is one of the most routine experiences of her linguistic life.

That being so, what is more interesting and challenging is to examine the issue from a microscopic perspective, that is, how words themselves have a disposition to be transferred and updated. What immediately comes to the fore is the observation that not all words are felicitously metaphorizable. Singular terms like proper names are seldom involved, and still less are demonstratives, in contrast to general terms. This may be because when uttering a metaphor, people usually intend to deliver an assertive predication on something at issue, and general terms, or singular terms used in the way of general terms, [1] are more likely to contain predicative information or stand for a specific category whose members share some attributes. Still, among general terms, it seems that familiar terms that are naturally formed in history, such

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[1] This is where the "Dual Reference" device comes to its effect. See Glucksberg (2008) for a nice explanation of how singular terms can be used as general predicates in such cases as the word "Bush" in 'Obama will be the next Bush."

as "water" and its fellows, are more susceptible to metaphorical exploitation than terms that are artificially defined for various technical purposes. According to Lakoff and Johnson (1980), this empirical preference is because people are accustomed to "structure less well specified domains of experience" in terms of "basic domains of experience". Setting cognitive consideration aside for the moment, another way to explain the phenomenon is that speakers are more accustomed to manipulate words the semantic properties of which are not only familiar to them but, more importantly, are plastic by themselves. Building blocks and clay remain in the repertories of kids when all other toys are relegated away.

Before discussing the *semantic plasticity* of natural kind terms, for the sake of better analysis, it is first necessary to introduce a contemporary philosophical skepticism against an age-old intuition on the semantic property of these terms , namely the intuition that their meaning is *equivalent* to the empirical cognitive information they are related with. In the philosophy of language, this intuitive view is formulated technically as the thesis that the meaning of a natural kind term is equivalent with a list of definite descriptions, which constitute their intensions that define their extensions. Notably, except for a few philosophers like Boyd (1979) and Kuhn (1979, 1990), in the study of metaphor this view has been ubiquitously assumed. It was assumed first of all by classic philosophical writers like Black (1954) and Goodman (1976), the gist of whose famous Interaction View of metaphor, construed as a "semantic view" of metaphor, is couched in terms of the "interactions" between the cognitive descriptions between the objects referred to by the subject and predicate terms. [1] This intuition has also been assumed by almost all general linguists on metaphor, in particular by cognitive linguists, who have done more than any generation of scholars in transferring metaphor from a linguistic subject to a cognitive one by equating meaning with cognition. Roughly at the same time when these views of metaphor were published in the second half of the last century, however, philosophers of language have been making it clear that this equation of linguistic meaning with cognitive information may be overly naive if not simply wrong. In the next few paragraphs I will exercise a rehearsal of the central

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[1] See Chapter IV for a detailed outline of this view.

points of this skepticism, now the new common sense and orthodoxy in philosophical semantics, partially for the sake of informativeness and partially for further argumentation.

Our initial story in the "Introduction" is a slight recast of one of the classic thought experiments in contemporary philosophy of language, i.e. Putnam's "Twin Earth" science fiction (1977a). In his original version, XYZ is from an alien planet, which is fortunately congenial to our earth in that both planets are exactly similar in every aspect except for the difference between H_2O and XYZ, but unfortunately this alien planet is already populated by aboriginals who speak languages exactly like English and other colloquial tongues on earth. In a similar lingual history with its earthly counterpart, XYZ has been called "water" by twin English speakers there, even when people there were chemically unsophisticated. Putnam's question is whether or not the two utterances of "water" here and there have the same meaning, and his answer is no. Despite that the two kinds of stuff have most of the superficial features in common, their physical constitutions are nevertheless different, and therefore they are, in essence, different kinds of things. That being so, although the cognitive descriptions people here and there connote with the utterance of "water" are mostly the same, or even entirely the same for chemically unschooled speakers, this does not means that their meanings are identical, since they refer to different things. Putnam's story vividly illustrates that your possession of a cluster of descriptions of properties related to a word does not guarantee that you command the meaning of the word. It shows, more specifically, that such finite lists of descriptions may not be *sufficient* to capture the meaning, since, however lengthy and detailed they are, it is still possible that they misaddress the referential link and pick up something else than what the word *means*. The first visitors to twin earth may have followed the practice of the twin earthlings to call XYZ "water", but to say that "we've discovered water there" in earthly English is to produce a statement that is falsified by the discovery that *that* water on twin earth is not *this* water on earth. And, moreover, this false statement is necessarily false , since a thing is necessarily not something other than itself.

Such descriptions are not even *necessary*, according to Kripke's earlier and more extensive argument (1972). To be true, it happens that, in the actual, earthly world, water is the tasteless, transparent, and life-supporting natural liquid, and some basic folk knowledge about these general properties suffices for a speaker to pick out the object without mistake. But most of these properties that we know are just contingent to water; one can coherently think about plenty of counterfactual situations in which there is a sample liquid without all these properties, i.e. being opaque, feculent, poisonous to life, but nevertheless is still water so long as this new sample is the same substance, that is to say given that it shares the same H_2O inner structure, and given that this inner structure is a reliable criterion for identifying the substance of water. You may have called this apparently different substance with a different name, say "wuter", and you may have taken "water is wuter" to be an obviously false statement due to a naive and false knowledge based on observation of appearance, but the statement, like "Hesperus is Phosphorus", is actually a true one, and necessarily so, since a thing is necessarily itself.

What is worse, according to Kripke, is that even adding the "H_2O" formulae, the very necessary property that we luckily know in the case of the thing of water, to the list of descriptions, is still helpless to capture the meaning of "water". To demonstrate this, Kripke extends the same modal reasoning from the metaphysical dimension into the epistemic one. Just think of the possibility that our H_2O knowledge is simply false, and all of us, including chemists, are deceived by a cognitive illusion for whatever reason. In such a scenario, "H_2O"itself would not refer to water, but would this possible failure of match between cognition and nature affect the referential relation between "water" and the thing water? Intuitively it seems not, for despite the possibility that our cognition of things could be false, as it sometimes actually is (empirical knowledge is falsifiable), water is still called "water", as it always is. People can be erroneous or ignorant of the essential physical structure of something but still be semantically competent of the word that refers to it. Think about our pre-chemical ancestors, who were totally alien to the knowledge of the H_2O structure of water, but who nevertheless coined the word "water", uttered it on countless occasions, poeticized it, and cried it on desperate voyages. Can theorists

afford to say that they did not know what "water" means? He who claims that would be abusing the linguistic competence of the early users of "water", and abusing the theorist himself, who is explaining his subject matter by executing it.

Neither superficial nor "essential" properties are reliable conditions to secure the extension of words like "water", for careful analysis of our *modal intuitions* in word use tells us that it is always possible, metaphysically or epistemologically, that these connotative descriptions fail to identify the object, which is nevertheless necessarily referred to by the name. The relation between the meaning of these words and their descriptions must therefore be more sinuous and fine-grained than we usually imagine them to be, otherwise they are simply detachable.[1] Now, that being said, how should one ground this referential function of words? And what role, if any, can descriptions play? Kripke, and Putnam in echo, proposed to trace the referential capacity of a word to a causal-historical relation to its "*naming ceremony*". One can assume that in the initial history a sample of a kind of liquid on earth was named "water", and it was accepted and gradually spread to an entire linguistic community, in the process of which the referential relation is causally preserved through communication. During the naming ceremony, people may, or may not, use descriptions to help identify the object in question, but the dubbing action *per se* should be understood as *ostensive* or *demonstrative* by nature. It is *that* thing over there, *that* tasteless liquid we drink, that we are to call "water". After it is so named, the referential relation is fixed, and in the future the name "water" will refer to water in all possible occasions. Possible subsequent enrichment and falsification of our knowledge of water, and possible changes to its contingent properties, would not result in a failure of reference because the substance and the name has been welded onto each other. In this way, the referential relation between the name and the natural kind is rigid; they are, like proper names, *rigid designators*.

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[1] At the time they wrote their papers, both Putnam and Kripke favored the detachment alternative. Kripke invoked Mill's view of proper names, in which it is argued that they have references but no senses or connotations. Kripke believed that this Millian view can be generalized to natural kind terms. Putnam, with the same spirit, popularized the slogan that "meanings aren't in the head"(1977a). Whether this strong and controvertible stance is sound or not can be set aside until the last chapter of the present work.

This much has been a synoptic review of some aspects of the standard argument in possible-worlds semantics with regard to natural kind terms. Now it is time to get back to the topic of the semantic plasticity of these words. Kripke's argument finally runs into the notion of the naming ceremony or initial baptism, though he did not bother to furnish a theory to expatiate how such baptisms would be carried out, except for pointing out that their key characteristic is ostensive. He is, of course, not to be blamed for this neglect. After all, the notion of naming ceremony is just a theoretic postulation of his argumentation against description theorists. For Kripke's argument, it is the logical relevancy or irrelevancy between a name's extension and the general descriptions associated with it, and not the extension itself, that matters. Indeed, for the sake of argumentation, it is actually better to assume that the extension of a naming ceremony can be easily determined, so that the main argumentative theme is not disturbed. What's more, most of the time the subject matter of Kripke's argument is proper names, and the issue of natural kind terms is an extended one. What is at issue for natural kind terms is their similarity in terms of rigidity in referring, which definite descriptions or general empirical cognitions fail to do.

Having said this, however, it is time to notice that the naming of natural kind terms is more complicated than that of proper names, in that the former involves natural categorization while the latter does not. When a natural kind is ostensively named, the job is typically done on finite occasions, usually just one or several, involving particular samples of the target category, the membership of which can nevertheless be infinite. This job, if done in an "empirically unconditional" (Quine, 1960) way, would be risky because among other variations it involves ascendant abstraction from particular data to a universal class based on similarities of natural things, the direction of which is *possibly indeterminable*. [1]   Immediately coming to one's mind is the indeterminacy with respect to how wide an extension the sample should

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[1] This is a case of what Kant called "reflective judgments", and Kant emphatically pointed out that reflective judgment is *indeterminate* by nature, for reasons similar to what will be mentioned below (Kant, 2000).

instantiate, given that the sample is already clearly perceived in the phenomenal field. The thing rushing in the river can be the instance of, at least, water the species, liquid the genus, and inorganic substance the higher genus; all of the three concepts are right predicates for it, but their scopes are differentiated in succession. This indeterminacy can be called the "vertical" indeterminacy, or indeterminacy out of *hierarchical uncertainty* of the concept in a would-be categorial system. The second, "horizontal", and more delicate indeterminacy is due to the philosophically well-informed *family resemblance* among natural things (Wittgenstein, 1953). Given a sample of a natural object , depending on under which aspect you are to approach it, it could be the sample of more than one species, or genus, at the same level of your categorial system. Everything is like everything else in some aspect or other, and everything is unlike everything else . A sample of water, in terms of its resemblance with other random samples, can be the representative of digestible things, transparent things, liquid things, life-supporting things, tearing things, and, of course, H_2O things. But there are differences or inconsistencies between all these kinds at a certain scale. Merely pointing at the sample and spelling out a name is indeterminate as to which one, or several, of the classes of things governed by the resemblances the word is to be predicated upon.[1]

Intuitively, both kinds of possible indeterminacy of extension, though only crudely suggested so far, are unwelcome to the baptizer, who would always expect her name to cut the joints of nature as clearly and exclusively as possible. Immediately she would take some means to discipline the sample and the kind it stands for. The naive way is to repeat the ostensive action sedulously upon other distinctive yet similar samples, but this will only reinforce the naming, not solve the problem ultimately, since, even given that the new samples are not superficially deceptive, induction from this practice remains particular, finite, and cannot exhaust all the members of its kind. [2] Naturally and more effectively, she will come across descriptive means; she may point at the sample, and say: that thing, with such and

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[1] For an informative study of the varieties of natural categorization in different linguistic communities, see Lakoff (1987).

[2] The second chapter of Quine (1960) is a classic discussion of the possible ambiguity of stimuli.

such properties, and with these properties alone, is to have this name. However, this still only relieves but does not remedy the problem. This is so even if she is cautious enough to always take all the descriptions as auxiliary, as a means to identify and qualify the sample but not to define it definitely, so as to maintain the ostensive nature of the naming. To show why this is not ultimately helpful, what is needed is to invert the Kripkean modal argument and reason from the other direction. On the one hand, superficial descriptions of the sample are neither necessary nor sufficient as a characterization of the category, since, firstly, other samples of the same category with the same internal structure may not possess the superficial properties observed by the baptizer, and secondly, some alien samples may nevertheless possess all the properties observed so far. On the other hand, descriptions of the "essential" structure of the sample, if available at all, is no guarantee of safety, since, as the Kripkean epistemic argument shows, they are possibly false, and it is the nature of empirical knowledge to be falsifiable. Moreover, even this falsifiable knowledge is not always available when one names a thing, which is still named and used anyway.

This last appeal to descriptions of "essential" structures could be really tempting, and even one of the proponents of the modal argument, namely Putnam himself, is guilty of a blunder here. Being more meticulous than Kripke on the determination of the extension of ostensive naming of natural kinds, he proposed the notion of a "division of linguistic labor" as a "sociolinguistic" solution to the problem. As he puts it, when an average speaker names a natural kind or learns the name of it, she may not know the specialized method of recognizing it, since this may involve knowledge of its unique "criteria". She can nevertheless depend on a "structured cooperation" in the community, relying on experts' judgments in case there is doubt of recognition, since the experts' knowledge of the methods of recognition is possessed by the community as a "collective body of speakers", and this knowledge can be part of the "social meaning" of the name (Putnam, 1977a). But as Kripke (1986) lamented later, this good-willed proposal, if taken as a putative consequence of the modal argument against descriptionism, carries a "strong *suggestio falsi*", since it is incompatible with the central message of the modal argument itself. To pass the buck from less reliable folk knowledge onto more reliable yet still

falsifiable scientific knowledge cannot be a final solution to the issue. Scientific discovery may or may not induce modification of the extension of a natural kind. [1] But, even if it does, and the extension of the natural kind is consequently narrowed or expanded thereby, it is just a case of re-naming or neo-naming. And re-naming or neo-naming does not mean that the original name is "false"—science is not in the position to falsify language, for it is within it.

To better appreciate the hypothesis that possible indeterminacy of word reference is rather a systematic phenomenon in real language use, it is illuminating to invoke another fiction from Davidson (1978). One of the earthmen tries to teach his mother tongue to his new friend from a remote planet, who unfortunately does not speak twin English but a totally alien language. Being thrown into this desperation of radical translation, he has to teach his alien friend solely with primitive ostensive means, constantly feeding him what Quine (1960) called "stimulus meaning" of words , and rewarding him positively if he is right and negatively if otherwise. To teach him the word "floor", for instance, the earthman leads his alien friend from floor to floor, pointing to and stamping on them and repeating the word. He wants his friend to know that "not only these particular objects and surfaces are floors", but also "how to tell a floor" in general. The finite number of samples in his education does not inform the alien friend with what he needs to know, but perhaps "with luck" these samples will help him to know. At last, the alien friend transports the earthman to visit the former's home planet , and in the flying spaceship, the alien friend looks back at the ever stretching vast land of earth, nods his head, and shouts out "floor!" Our earthman is presumably very frustrated by this, but is his friend necessarily mistaken? If the earthman happens to be literarily well-informed, he may know that some of his earthly compatriots, Dante for instance, from a similar imagined viewpoint from the heavens, could have seriously and literally seen the inhabited earth as "the small round floor that makes us passionate".

Davidson could have chopped away the unearthly elements of his story, for this

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[1] According to Quine's view of natural kinds, scientific developments are correlated with dissolutions of pre-observed similarities among natural things. See Quine (1977).

story can in fact be understood as the basic process of native language acquisition, since his alien pupil lacks the wheelchair of his mother tongue and has to start everything from ground zero like an inarticulate infant on earth. The *prima facie* lesson of the story can be read as the indeterminacy of extensions of natural kind terms in language acquisition. Native speakers are verbally initiated through ostensive means; each of such ostensive learning courses is similar to a passive naming ceremony in that it is the first time for them to know the name of a thing (only that the name is prepared by the linguistic community). To learn a word in this way, as Davidson points out, is also to learn a categorial system, or "a piece of knowledge of the world". Having undergone the Quinean trial-and-error exposure for some time, a child is said to have grasped the meaning of a word, to be "semantically competent" of it, if it is expectable that in the future he can utter the word when meeting other hitherto unseen samples of the same kind , and if he knows how to screen out the irrelevant and accidental features of the new samples, even though he is totally ignorant of the chemistry or physics of it. For pedagogical evaluation, it is ideal that throughout his life the kid uses the word in a docile way, being triggered to make utterances of it only when prototypical instances of the kind are present. But precisely because the natural learning process is ostensive and finite by nature, the possibility cannot be ruled out that in the future he may apply the word to some novel sample which is similar to all the pedagogical examples in regard to its distinguishable features. He may even creatively use the word to address some novel thing that he fully knows to be different from the samples in some aspects and yet similar to them in others, because he just cannot retrieve another name for it from his limited vocabulary. While the teacher thinks he falsely uses the word in this way, the student may think that, in doing so, he is still in the process of leaning the word, trying to apply it to a new candidate sample when some outstanding features of the kind appear in that object, and ignoring other discrepancies as merely white noise. The teacher's paradox is that if he assents with the student, he offends a conventional genus, but if he dissents with him, he kills a piece of genius.

A second and equally earthly lesson, illustrated by the discrepancy in use of the word "floor" from Dante's age to ours, is the indeterminacy of extension through

language coordination or communication, both in historical and "spatial" senses. For the Kripkean causal theory of reference to work ideally, it should be assumed that the extension of a word, if at all determinable at the naming ceremony, is also relayed basically *coextensively* between speakers and listeners in communication, and the coextensive relation should be preserved intact in the community in historical transitions. Otherwise, in view of the phenomenon of family resemblance among natural things and people's different approaches to them and their ever updated knowledge about them, it is possible that what a word originally meant could be gradually marginalized after its numerous relays. Appealing to authoritative definitions of extensions in the form of dictionary entries, and thus achieving some consensus among the community, will relieve the problem for some time given that speakers are always willing to consult a dictionary when ambiguity arises, and given that a perfect dictionary is sanctioned by all speakers in the community. But, immediately, the semanticist who is really serious about this strategy is guilty of begging the question, since lexical dictionaries are just written checklists of general descriptions or "semantic markers". Moreover, precisely because a dictionary is thus composed, it is susceptible to possible changes when human cognitions are updated. A convenient and real example is the evolution of the extension of the word "water". Educated people nowadays usually assume that "water" means and meant H_2O all throughout our linguistic history, even in the past when our ancestors did not know its essential chemical structure. But Kuhn (1990) observes that this is not the case in history. Just two centuries ago when modern chemistry had not yet emerged, even for scientists the most "essential" property of water was liquidity, and the extension of "water" was on the one hand wider than that of H_2O, by referring to some other kinds of stuff in liquid states, and on the other hand it was narrower since solidified and gaseous states of H_2O were not classified as water. Even today, an average English speaker lives well with two different categorial systems and two uses and meanings behind "water"—in the laboratory, she knows that both ice and steam are water, but in the kitchen, she knows otherwise.

So far the discussion has been on the semantic peculiarity of natural kind terms, the most metaphorizable terms in natural language, and the focus has been on the

possible indeterminacy—or, toward a nicer wording, the *openness* or *plasticity*—of their extensions and therefore their meaning, which can be traced back to the indeterminacy of their empirically unconditional ostensive naming process. The discussion up to now seems to be favorable to the suggestion that the meaning of these words is *de facto* indeterminable, or language itself is *de facto* metaphorical. This position, though radical, is not uncommon in the literature. It can be dated back at least to Nietzsche (1999), who says that the truths expressed by language are but a "movable host of metaphors, metonymies, and anthropomorphisms". One of the major sources of Nietzsche's skepticism is his insight into the problematic nature of the formation of empirical concepts (e.g., "leaves" and "honesty," as mentioned in his text). The universality in such conceptual formations which people take for granted, according to him, is actually a matter of arbitrary induction based on similarities and on forgetting dissimilarities, therefore such universals are actually "illusions" forgotten to be illusions. A contemporary statement of the same stance is found in Hesse (1988), who holds a "Network theory" of meaning, which is based on the Wittgensteinian idea of family resemblance. Just like the Wittgensteinian example of "games", most general terms, Hesse insists, do not predicate on a class whose members all share some distinguishable universal properties. In application, the meanings of these terms, extension and intension alike, keep "shifting" on various usages, and this is how, at least partially, metaphors work. In this sense, "metaphorical meaning is normal, not pathological, and some of the mechanisms of metaphor are essential to the meaning of any descriptive language at all". In short, "all language is metaphorical".

This relativistic view of the metaphorical nature of language, if taken too far, is nevertheless counter-intuitive and guilty of a genetic fallacy. One can, of course, trace the semantic origin of many or perhaps all words in literal usage in any natural language to a metaphorical formation, and the evolution of word meaning, as Quine says, can generally be metaphorical in that it always involves constant transposition of old uses to new ones. But origin is one matter, while live use is another. A genetically metaphorical language can still be used in non-metaphorical and literal ways on most occasions. On the other hand, that the extension of a word contains

members with partial similarities but general dissimilarities does not necessarily mean that the extension itself is not determinable. Take "game" as an example. Although one cannot state a single universal property for all of the members in the extensional class, this does not mean that the extension is *de facto* elusive . For most cases when speakers use the word, such as when they talk about basketball, poker, TV competitions and other games in life, they know that all these are games, and they know that the referential relation between "game" and these activities is unquestionable. A real metaphorical experience of "game" will only happen when there is a *radical* linguistic event in which the word is used to refer to something other than all the familiar games, that is, to something that is obviously not a game in the present conventional sense, e.g. marriage, lecture, purchase, etc.

Nietzsche and Hesse's idea, nevertheless, can serve as a reminder that the indeterminacy thesis should be constrained in order to prevent its slipping into radical relativism or nihilism of the semantics of natural language. A prudent and plausible way to save the dilemma is to realize that even though word meaning is *possibly* indeterminable, this does not mean that it is *actually* always so. More specifically, one can agree that viewed from an evolutionary perspective, natural kind terms are always undergoing metaphorical change, but within a specific context or a specific possible world of use, its meaning is nevertheless stabilized and conventionalized by speakers. This context or possible world, including any finite speaker of a language in her *actual* world, can be understood as a specific time in a specific linguistic community with specific speakers within that community. Take "water" once again as an example. Within one of the possible worlds, namely the actual world we are situated in, its conventional extension is H_2O, and actually in this world H_2O is the only natural thing that possesses the superficial properties of being tasteless, odorless, life-supporting and so on. These superficial properties serve as the ingredients of an extension-identifying template for the average speaker. In this world, therefore, speakers can take H_2O as their conventional "meaning" of "water", and in standard cases, it is through its reference to H_2O that it acquires the literal use of the word. This does not prevent the possibility that, in some new possible worlds, the word "water" can be shifted for further new uses. One of the ways for the

emergence of a new possible world is through the discovery of a new species that shares many properties with H_2O; the linguistic community can consequently make the important decision to update its categorial system to accommodate this new species discovery, and thereby changes the extension of one of the most common words in the community. It is important to point out, however, that the first time this new use happens in language would be a case of metaphor— the transference of the word "water" from one world to another.

With this idea in mind, it will be illuminating to look at the case of "game" anew. "Game" is a typical natural kind term in that its meaning and use in English have been secured not by any artificial and normative definitions, but instead by natural categorizations, which are ever evolving from one context to another. The extant semantic property of the word, including the family resemblance in its connotations, is therefore something like a fossil, in which various historical uses have been petrified. Without consulting an etymologic dictionary, one can reasonably guess that in the beginning the word was dubbed by an initial speaker to refer to a specific game, whose property and extension were quite clear and unambiguous, as the actual naming ceremony then was empirically well conditioned in that world. The good wish of the initial baptizer, however, has turned out empty as the word has been transferred to nominate new kinds of activities which are similar in some but not all aspects to the extant games in the world. Each such case of transference should be counted as a case of re-dubbing, since the extension of the word is substantially expanded, or shrunk in some cases due to the historical disappearance of old games. It is reasonable to assume that in many of these new uses speakers have not even realized that it is a novel use, as the new "game" they refer to is naturally similar to the old ones, and in their conception of the use of the word this new game has already been included into the extension of the word. Anyway, theoretically speaking, there is a borderline between the old and new uses of the word, and breaking through this borderline is the origin of the linguistic phenomenon of metaphor.

Verbal meanings, in the literal sense, are relativised to contextual possible worlds, and contextual possible worlds are to be understood not only as possible states of

affairs in the world that are readily represented by a well-behaved language, but also as the possible categorizations behind linguistic items themselves. One of the suggestions of our analysis so far is the assumption that what is traditionally called the "metaphorical meaning" of a word can actually be a sort of literal meaning, namely the verbal meaning of a word in a new contextual possible world. Whether this assumption is right or not is to be analyzed and confirmed in the following chapters, but for the moment it can be pointed out that if this assumption is reasonable, then our commonsensical understanding of the distinction between the metaphorical and the literal can be refined if not corrected. Intuitive understanding of this distinction usually takes it as merely a normal semantic one, as the metaphorical meaning of a word is understood as some special and separate semantic property apart from its conventional sense. This is of course true, but it is not refined enough, since there is more than one way for a word and a proposition to have more than one meaning, and a good distinction should tell us in which way the semantic difference between metaphor and literal meaning is distinct from other kinds of semantic difference, such as ambiguity.

The answer to the question can be simple. Ambiguity is the phenomenon that under the same word token there are two semantic units, each of which is distinct from the other, and yet both can exist in the same contextual possible world. In other words an ambiguous word is a word with two meanings in the same language. On the other hand, metaphor involves a trans-world change of word meaning, so that although in metaphorical uses, as in ambiguity, under the same word token there might be two distinctive semantic units at work, their relation is nevertheless not co-existent, but instead *world exclusive*. In other words, one can say that a metaphor is a word with two meanings in two different languages. With the introduction of a metaphorical use, a speaker initiates an event to change a local part of her language, so as to cope with a new representational task. In this sense, the change is not merely a semantic change in the general sense, that is to say it is not an introduction of a new additional semantic unit into the language without changing its present semantic relation, but rather it is to change the language itself; the conventional sense is to be changed, *invalidated* and discarded in the new context of conversation, and it is only

the *metaphoricalized literal* meaning that is to be preserved in the new possible world. The metaphorical-literal distinction, as such, is not merely semantic, but more importantly, it is *meta-semantic*.

One way to illuminate this world exclusive *meta-semantic* distinction is to pay attention to the paraphrase issue. A normal case of ambiguity in conversation usually can be solved by paraphrasing the intended word meaning with other phrases available in one's language, but, as is widely observed, this is not easy for metaphorical expressions, more so if the expressions at issue are novel and apt. So if I say, "I am going to visit the bank", for further clarification of the verbal meaning of my utterance I can add, "the river bank, not the local financial agency", so as to precisely suggest that I am going to visit the river bank. But if one utters, "I am going to swim the moral river", in a sincere manner, to a friend, and is requested to express its meaning more clearly, he will probably run into desperation, because he simply cannot find other words in his language to express the same meaning precisely, and indeed, it is precisely because he lacks the means in the existing vocabulary that he has to use this metaphorical expression. The metaphorical expression is semantically incompatible with, and irreducible to, the paraphrasing meta-language, and so it has to mean, in the literal sense, what it means in the new language itself. [1]

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[1] This semantic incompatibility manifested by the paraphrasing difficulty also helps to see a fatal weakness of the Pragmatists' approach to metaphor, as we'll see in the next Chapter.

III. METAPHOR AND PRAGMATIC AMBIGUITY

Metaphor is a trope, a figure of speech. For thousands of years it has been conveniently classified alongside irony, meiosis, hyperbole, simile, and various indirect speeches. Intuitively, a trope is a special mode of language in which the words and phrases are used, usually deliberately, in ways *deviant* from their normal and conventional senses. [1] Precisely because of this, tropes are signs of being funny, witty, surprising, emotive, and stylistically beautiful, and it is thus natural that the study of them has been the subject matter of rhetoric and poetics. This tradition can be traced back again to Aristotle, who talks about metaphor and its siblings squarely in the works of *Rhetoric* and *Poetics*. Aristotle understood that metaphor is a great yet dangerous device, since inappropriate use of it can be misleading in spite of its mysterious beauty. His caution has been well received by philosophers in the West. With the exception of a few Romanists like Nietzsche (1990), philosophers in history have generally been theoretically averse to metaphor, for its tendency to misguide and obstruct the pursuit of truth and enlightenment. This aversive voice can be best appreciated through the voices from the scientifically minded British Empiricists: Locke, who famously and metaphorically described the human mind as a "blank slate on which sense data are written", also said in the same work that metaphor is for nothing but "wrong *ideas*" (1996, bk III, chap. X); Hobbes likens metaphor to "*ignes fatui*" (1996, chap. 5); and Berkeley (1993) lessoned that a philosopher should "abstain from metaphors." [2]

Contemporary philosophy has witnessed a dramatic change of attitude toward the subject matter, as metaphor has been acknowledged by many philosophers as a proper device in purposive and rational discourse. But still it is a prevalent custom to treat it as belonging to the same linguistic category with other tropes, with the assumption that their linguistic behaviors are governed by similar mechanisms. One of the conspicuous examples of this custom is Grice (1975). Grice's work was not

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[1] OED: Origin of "Trope": "Via Latin from Greek *tropos*, 'turn, way, trope', from *trepein* 'to turn'."

[2] For a detailed retrospection of the fate of metaphor in philosophical history, see Johnson (1981).

intended as a treatise on metaphor or tropes in general, but its short mention of it in a general theoretic framework initiated a venerable tradition in contemporary metaphor scholarship, namely the Pragmatist approach, according to which the message delivered by metaphor is not effected by the intrinsic verbal meaning of the words or expressions at issue, but by trope-styled, circumlocutory use of the expressions in conversational contexts. Specifically, according to him, this circumlocutory purpose is achieved by *implicating* something in the conversation other than what is said verbally. Grice advanced our understanding of conversations in natural language by inviting widespread attention to the Cooperative Principle and its attendant maxims to be observed in rational and purposive conversations in order for a linguistic exchange to be successful. On some occasions a speaker may fail to fulfill some of the maxims, but on the understanding that she is generally observing the Cooperative Principle, and given that there are sufficient contextual factors, there is room for her listener to work out what she intends to deliver beyond what is said in her words, and the message delivered as such is named *conversational implicature* by Grice. Metaphor belongs to one of the subcategories of such a deliberate failure of fulfillment of the maxims, namely speakers' exploiting and *flouting* the "Maxims of Quality" in conversation.

Suppose one says to her partner, "You are the cream in my coffee". Grice points out that expressions like this characteristically involve "*categorial falsity*", so the contradictory of what the speaker has said will be a truism. Therefore, it is reasonable to think that the proposition (namely "what is said") of the expression itself is not what the speaker intends to impart, and the "most likely supposition" is that "the speaker is attributing to his audience some feature or features in respect of which the audience resembles (more or less fancifully) the mentioned substance," and there results in a cooperative interpretation, an *implicated* proposition, such as, "You are my pride and joy." In this aspect, Grice thinks that metaphor is like irony, meiosis, and hyperbole, in the utterance of which a speaker purposively flouts the "maxim of quality" in cooperative conversation, which is the maxim that one should not say what one believes to be false. But given that in the context the listener knows that the speaker does not sincerely mean the false proposition, the listener should be

able to work out something else, as Grice insists that implicatures are capable of being worked out by rational participants in conversations. So, normally, in the case of irony, the implicature may just be the contradictory of what is said, and in meiosis, something more explicit, and in hyperbole, something less exaggerated. In the case of metaphor, the implicature is based on a simile that the metaphorical expression makes salient. Metaphor is not reduced to simile, but its use assumes the existence of a simile, as far as Grice's short analysis goes.

As such, Grice has sanctioned the tradition of studying metaphor together with other tropes, and he explains how such tropes can yield some pan-propositional messages (implicatures) in rational discourse. As for precisely why people bother to use such tropes at all, he does not explain. Perhaps for Grice this should also be accounted for in terms of their rhetorical force. But for the purposes of the present study, we can leave this rhetorical issue aside and instead focus on a problem immediately lurking behind his classification and analysis. As mentioned above, Grice points out, sensitively enough, that in terms of conventional interpretation a metaphorical expression characteristically involves "categorial falsity" (e.g. attributing creamness to a person). However, he does not notice that among the four kinds of tropes whose truth value is falsity in their conventional meaning, metaphor is the only one the falsity of which is *categorial*. [1] Take irony for example. What a speaker does in uttering it is simply to say something logically contradictory (e.g. to say "Socrates is NOT a bad husband") or semantically antonymous (e.g. to say "Socrates is a good husband") to her intended implicature (e.g. "Socrates is a bad husband"), but the said predicate and the implicated one ("good husband" and "bad husband") obviously belong to the same category (good husbands and bad ones are all

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[1] In accordance with familiar classifications of tropes in rhetoric or empirical linguistics, metaphor is not the only categorically false one, for at least metonymy, the device that substitutes the name of a part for the name of the whole of something, serves as another candidate. Obviously, the categorial mistake of metonymy is nevertheless not as serious as that of typical metaphors, as the former only involves exploitation of "vertical" categorical uncertainty mentioned in the last chapter, while the latter usually involves exploitation of "horizontal" or both kinds of indeterminacy. According to Aristotle's definition of metaphor, metonymy is also a sub-kind of metaphor, namely the kind which involves transference of word from "species" to "genus".

conventional husbands!). This *categorial compatibility* also governs other familiar implicature-inducing tropes such as meiosis, hyperbole, as well as indirect speech (although in somewhat tortuous ways). All these tropes are such that their implicatures can be worked out based on the explicitly said sentence and the contextual information by means of normal logical, semantic, or causal computation within the same language without changing the meaning of the terms used.

Let's look at some further examples. In the above example of irony, the computation used is logical or semantic, together with contextual information, namely our historical gossip about Socrates' personal life style. Logical computation can also yield the implicature of Grice's hyperbole, "Every nice girl loves a sailor", by changing the universal logical quantifier "every" into the particular one "some" or "many". The situation is similar for meiosis. Grice's example is "He was a little intoxicated", in which the contextually relevant fact is that the man alluded to has broken all the furniture at home. Judging from the serious violence, one can work out the implicature "He was quite intoxicated" and realize that the speaker has reduced the degree of seriousness of the indecent behavior. For indirect speech, which is not mentioned by Grice but by later writers like Searle (1979), the solution is a little more complicated since semantic, logical, and causal computations are all likely involved. Consider an expression like "It is so cold here", uttered in a winter morning with all the widows in the room open, and the speaker's intended implicature is "We need to close the windows". Here of course the speaker is not flouting the maxim of quality since the said proposition is true, so what is exploited is probably the maxim of relevance, and the reasoning used for the solution is largely factual and causal.

Grice overlooks this difference between metaphor and other tropes because he is occupied with the common offense of all the four tropes, including metaphor, against his first maxim of quality, since what is said in all of them is something obviously false, and for him categorial falsity is *just* one way of being false —that is enough for him. But is there any lesson that this unique categorial falsity of metaphor can reveal in regards to its linguistic properties? If one thinks about one of

the conspicuous semantic features of metaphor, i.e. its widely recognized resistance to paraphrasing, then the message is clear. For all other tropes used in rational conversations, their "real" and silent message behind the utterance can be paraphrased precisely after some logical, semantic, or causal reasoning is duly computed, and the content can be worked out as such without substantial loss, although the rhetorical force might be aired away. But for the speaker who says the metaphor "You are the cream in my coffee", she will probably feel somewhat anticlimactic—not merely aesthetically or rhetorically, but also semantically—by her lover's starkly Gricean paraphrasing of it into "You are my pride and joy", no matter how prideful and joyful the occasion of utterance is. The intuition is that when saying the metaphor, she tries to say something special and distinctive from the mundane counterpart Grice works out for her. Nevertheless, the peculiar problem here is that even she herself cannot explain precisely what the special import is. That is to say, her import cannot, at least not precisely and satisfactorily, be worked out in the conventional language with the conventional categorial systems the language is programmed in. She wants to say something not merely rhetorically nicer. In figuring out her new proposition she is substantially in dearth of vocabulary in the language conventional to her, of which the category mistake is just a desperate symptom. [1]

This ineffable effect was clearly expressed by another pragmatist. In his famous paper on metaphor, Searle (1979) points out that "sometimes" even for simple metaphors "we feel that we know exactly what the metaphor means" and yet would not be able to formulate a literal paraphrase because "there are no literal expressions that convey what it means", and indeed in these cases metaphor often serves to plug the "semantic gaps". Unfortunately, Searle does not realize the central significance of this issue. His work is eventually devoted to reassuming Grice's strategy of analysis and treating metaphor again as a case of normal trope (enriched by him with indirect speech acts). While Grice takes the circumlocutory message in metaphor as implicature, Searle calls it "speaker's meaning" or "utterance meaning", as against the "word and sentence meaning" of the expression . Searle actually professes, even

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[1] Black (1954) gives a very good characterization of this anticlimactic loss of "content", although the present study does not agree with his conclusion of it. See p69 for a review of his characterization.

more than Grice, that the study of metaphor is not a semantic business, and the linguistic problem of metaphor is nothing but a special case of "the general problem of explaining how speaker meaning and sentence or word meaning come apart." The major task in his paper is therefore to elaborate a family of working "principles" by which one can systematically compute the "utterance meaning" out of its word meaning in terms of contextual cues and various sorts of comprehension. Thus, for example, if an utterance, say "Sam is a pig", is read as "*defective*" in the literal and conventional sense, one is to look for a distinctive utterance meaning, and since according to its contingent properties pig is a salient case of being filthy, gluttonous, sloppy and so on, the *paraphrase* of the utterance meaning of the metaphor should be "Sam is filthy, gluttonous, sloppy, and so on."

If a speaker, in saying "Sam is a pig", means "Sam is filthy, gluttonous, sloppy, and so on" as her utterance meaning, then metaphor can after all be paraphrased. Searle says that the best we can do in paraphrasing is to "reproduce the truth conditions" of the metaphorical utterance (e.g. "Sam is a pig"), but the metaphorical utterance "does more than just convey its truth conditions", for it "conveys its truth conditions" (e.g., being filthy, gluttonous, sloppy, and so on) by way of another "semantic content" (e.g., "is a pig"), whose "truth conditions" (e.g. being a pig) are not part of the "truth conditions" (e.g., being filthy, gluttonous, sloppy, as stated above) of the utterance. But as long as the tongue twister jargon is made clear, it seems that according to Searle the truth conditions of a metaphor can be captured by other expressions in the same language. And this is just another way to say that metaphor can be paraphrased, since to paraphrase, at least in the core sense of the term, IS to reproduce the truth conditions of an original expression. Searle's theory of metaphor is much more Gricean than he verbally makes it out to be. Moreover, by making it explicit that the speaker's meaning of a metaphor can be reproduced by existing vocabulary, he is making his theory akin to the traditional view widely criticized in the literature, namely the view that metaphorical expressions serve as economic substitutions of other expressions. [1]

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[1] See Black (1954) for a criticism of the substitution view of metaphor.

It is time to summarize what has been presented so far before moving forward into a further and related attack. Grice and Searle take metaphor, like other tropes, as a strategy of communication in which the speaker says a proposition and at the same time intends another in the form of conversational implicature or speaker's meaning. For the purposes of the present study we have cast doubt on whether or not the two propositions at issue are semantically compatible, and whether or not their message (whatever that is) can be expressed in or reduced to the same language, since intuition tells us that metaphors, as statements of categorical falsity, are hard to paraphrase, because their meaning or truth conditions are hard to be expressed by a meta-proposition from the same categorial systems in which the object proposition is expressed, however painstaking the translator would be in paying attention to the contextual information as well as the logical, semantic and causal relations between the two propositions. Both Grice and Searle noticed something uneasy and unusual with metaphorical paraphrase, but, as they were occupied by a unidimensional pragmatic framework, neither of them paid sufficient attention to the peculiarity. But this peculiarity is a strong clue that the linguistic behavior of metaphors is considerably different from other normal tropes of speech. It suggests, at the least, that the intended semantic nature of a second metaphorical linguistic unit (the metaphorical proposition and its metaphorical component), if there is one at all, is not to be accounted for in the same vocabulary system in which the expression is made.

Viewed from this perspective, Davidson's otherwise radical work (1978) is theoretically much more prudent. Davidson is allied with Grice and Searle in that he, too, takes the study of metaphor as a matter belonging to the domain of language use, namely, something to be studied in pragmatics. And, indeed, the explicit aim of his paper is to attack the view that metaphorical expressions possess any "special meaning" or "cognitive content". On the one hand, Davidson claims that, semantically, "metaphors mean what the words, in their most literal interpretation, mean, and nothing more", and it would be a "central mistake" for one to think that a metaphor has, in addition to its literal meaning, another sense or meaning. On the other hand, he does not seek to account for the "wonders" and "points" of

metaphors in terms of conversational implicatures or speaker's meanings. In accordance with Grice, Davidson emphasizes that a metaphor is characteristically a false proposition in the "ordinary sense", but he does not see that by this flagrant falsity the speaker intends to suggest or implicate a propositional truth. Through the falsity the speaker does provoke something from her listener, say, to remind the latter to attend to some similarities between the things referred to respectively by the subject and predicate terms in the metaphorical proposition, but this provoking—which Davidson metaphorically calls "intimating"–by itself is not the meaning of the metaphor, nor is the possible similarity attended to be understood as the content of any proposition directly reasoned from the metaphor. In this way, Davidson likens a metaphor to a picture, the import of which is pre-and-extra-linguistic.

This view is more prudent than the Gricean one because it avoids the thorny paraphrase problem. Davidson says that a metaphor is not possible, nor necessary, to be paraphrased, because there is nothing to be paraphrased. The legitimate function of so-called paraphrasing is to "make the lazy or ignorant reader have a vision like that of the skilled critic", but even the critic at his best cannot reproduce the meaning of an artwork with propositional means. The maker of a metaphor says something flagrantly false, and, yes, as Grice says, she does "exploit" the falsity and make "use" of it. But this exploitation does not invoke a full-fledged and clear-cut thought from the audience. It is, rather, more like a surprising jump or elbow nudge, which intimates the audience to notice something unusual about the subject matter under discussion. What is intimated is not encoded in the uttered proposition, nor can it be made out clearly from contextual information, since you cannot make it clear with the help of other conventional expressions. More often than not, via a metaphor we are reminded of a similarity, but this similarity is not stated in the metaphorical expression, as in a simile whose meaning contains the assertion of the similarity with a "like". Semantically, a metaphor is simply a false categorial assertion, and nothing else. It just presents this falsity to the audience, and it encourages the audience to see the matter under discussion otherwise. But it does not tell you what you should see. And this is precisely where the beauty of metaphor lies, precisely

what makes metaphor into the "dreamwork" of language.

Davidson's insightful analysis is also much more radical than the analyses given by Grice and Searle, in that it takes metaphor as a business "exclusively" of linguistic *use*, not of meaning. At the same time, however, he renders a general inadequacy of the Pragmatist approach to metaphor more conspicuous and more dramatic than the other two philosophers, namely, the inadequacy of accounting for the fact that on many occasions metaphors are meant by sincere speakers as *true propositions*. In Grice and Searle's theories, a metaphorical expression is also taken to be false under conventional interpretation, but at least there is still room for something to be true , that is, the conversational implicature or the implicit proposition of the speaker's meaning is taken as true. Davidson perceives the deep problem of paraphrase behind such treatments, so he gives up such strategies. The only propositional content he admits in metaphor is the conventional one, which is obviously false.[1] But if metaphors can be taken as true by rational and sincere speakers, then some central consideration in his theory may be problematic. According to the principle of compositionality in the Fregean tradition of semantics, it is easy to see that the recognition of truth (as the semantic value of the whole proposition) of an otherwise false proposition would be strong evidence that some of the semantic values of the components of the proposition must have been changed. Moreover, if it is the metaphorical expression itself, namely the proposition stated verbally, not its implicature or speaker's proposition, that is recognized as true, then Grice and Searle's extra-propositional construction will be problematic as well.

Can metaphorical expressions themselves be recognized as true in real-time conversations? To answer this, let's first see how they can be recognized as false from speakers' perspectives. Think about the simple example from Searle, "Sam is a pig". Imagine that Sam's friend John says this sentence to their common friend Tom, who, like John, knows Sam well, and, of course, whose knowledge of Sam includes the

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[1] By saying that a metaphorical proposition is false, what we have in mind is, of course, such superficially assertive ones like "Sam is a pig", not their logical negation, "Sam is not a pig". The difference is irrelevant for the discussion at issue.

trivial categorial information that Sam is a member of the species of *Homo Sapiens*, not of *Suidae*. Suppose that Tom responds "No". How should one spell out the full assumption behind his negative response, namely his statement of the falsity of John's statement? If made explicitly, does he intend to say, "No, Sam is not a pig, but a person", or something else like "No, Sam is not a pig, but a donkey"? [1] The former is a negation, a semantically legitimate one in the conventional sense. But such a negation, unless there are other tropes like irony involved, or either one or both of the participants are pig-headed, will not likely happen in rational and sincere conversation, since the conversation is the least informative. Its truth is as trivial as the falsity of John's original statement. Instead, the second response is likely more reasonable and more informative. It is also more *cooperative* in the Gricean sense, as Tom is actually following John's way of talk, in the metaphorical sense of his words, and is responding to his words in the same way. What matters here for Tom is that he disagrees with John's judgment of Sam, and his disagreement is substantial and not trivial. He expresses his substantial disagreement by indicating that one should not attribute pigness to Sam, but something else like donkeyness.

Is Tom's answer under the second interpretation semantically legitimate? Intuitively I think it is, and according to our mundane linguistic experience this would be the *characteristic* way people respond to sensible metaphors. That is, as long as speakers recognize the obvious defectiveness of the interpretation of the sentence in the conventional sense, they follow its new sense and react to it as a normal proposition in this new sense. As to any normal proposition, they can react to it negatively, or affirmatively, as their endorsement of the *truth* of the proposition. Tom may respond "Yes" to John, and, of course, his response, like the negative one, is *ambiguous* in the sense that it can be interpreted in two ways, as a trivially false recognition of the truth of John's expression in the conventional sense, or as a substantial confirmation of its propositional content in the new sense. Tom can even

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[1] For the purposes of argumentation, here we ignore a third and special reading in Tom's "No", namely something like this: "No, your attribution of 'pig' to Sam is wrong. You cannot ascribe the name of an animal to a man". Here, indeed, Tom not responding to John, but carrying out a meta-criticism of the latter's language. Tom, under this reading, is not participating in the conversation, but teaching John something in the philosophy of language.

confirm it in a more informative way, and say "Yes, Sam is a pig, the most disgusting, filthy, gluttonous, sloppy guy among our friends". In saying this, he is not to be understood as paraphrasing John's metaphor, but instead substantiating it, reinforcing it, enriching it, entrenching it, and constraining it in some contexts. Moreover, the truth can be carried further in their conversation. John says that Sam is a pig, and Tom says that since Sam is a pig, they should stay away from him until he reforms himself into a tidy dog. The truth is confirmed and preserved, and in further talks it can serve as the basis for reasoning, judging, rebutting, memorizing, and all other utilizations that a normal *propositional truth* can serve.

What does this mean? I think it means that the metaphorical vehicle (e.g. "pig"), and the statement as a whole, have been used with this new meaning in this new context contrived by the participants of the lingual exchange (e.g., John and Tom) in the same way they are used with their old meanings in the social-conventional context. More specifically, by "meanings" I mean the *verbal meaning*, namely the semantic property. For John and Tom, "pig" and "Sam is a pig" are semantically apprehended and commutated in the new metaphorical context; they are not used, as Grice and Searle suggest, to implicate or induce something outside themselves, nor, as Davidson insists, to serve as a one-off surprising pleasure for the participants. Rather, they are used to register and encode something communally recognized between John and Tom, if the metaphor is rightly and unmistakably conveyed and remains so in the remainder of their conversation, and if it can be used in the same way by them in future conversations. To appropriate Davidson's predication, the metaphorical word and sentence "mean what the words, in their most literal interpretation, mean, and nothing more"—only that their meanings are to be understood and evaluated within a new semantic convention of English proposed by John, in which "pig" is intended to stand for a novel category of which swine are prototypical members, but the extension of which cannot be adequately delineated by John within his English vocabulary. [1] Tom gets the category, and his response of

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[1] For the sake of argumentation, here we follow Searle and take "Sam is a pig" *as if* it is a novel metaphor, which is not correct. Understandably, "pig" has been used by thousands of speakers as a predicate of persons, thus one entry of it in OED reads, "an unpleasant or offensive person; a person

"yes" or "no" in the second sense is a sign that he sanctions the category, but it is open for him to decide whether or not it is a matter of fact that Sam is to be included in it.

To make the foregoing points more precise, let us examine a recent dispute between Hill (1997) and Camp (2006). The former has arrived at a somewhat congenial view to what I've said above, namely that metaphorical expressions can acquire new semantic meanings. Starting also from the fact that people can respond "yes" or "no" to metaphorical expressions in the second sense stated above, Hill reasons that it is natural that the words used metaphorically "get taken as to express a thought they wouldn't express if they were taken literally—one which may be true or false or indeterminate in its truth value, one to which we are free to respond in ways that are appropriate only to thoughts that speakers have actually put into word." So, if Romeo utters "Juliet is the sun", and someone responds "yes", and given that the speakers in the context know well that Juliet is not the sun in the conventional or "literal" sense, it is natural to interpret it as meaning "Juliet is beautiful, nurturing, worthy of worship, and so on", and this meaning will be explicitly and systematically carried out in further moves in the conversation. So, "in addition to metaphorical truth values belonging to sentences, there are metaphorical references belonging to subsentential expressions." That is, "sun" in its metaphorical use will play the role of expressing an *ad hoc* concept and bearing a new verbal meaning in the conversational context.

Camp, however, does not agree with this claim, and her reasoning is that Hill has based his claim on an unclear boundary of "what is said" in an expression. More specifically, Camp believes that merely the evidence of free response in truth or falsity to something other than the expression in its conventional sense does not mean that this "something other" is a semantic unit, for the response can be equally applied to "implicatures and other forms of speaker meaning", including irony. Thus, as an example of a positive response, suppose Alice says, "Jane's really been a fine

who is dirty or greedy". "Pig" in this sense has become a dead and tamed metaphor whose meaning has degenerated into a paraphrase from lexicographers.

friend to me in these last few weeks," meaning it sarcastically as she has been betrayed by Jane recently. And Bill, the audience of the expression, replies, "Oh, yes, she surely has: just the sort of ally and boon companion that we all dream of". And as an example of a negative response, suppose Alice says, "all the brilliant theorists must have gone to lunch", intending the noun phrase sarcastically, and Bill responds, "No they haven' t; they 're all just too lazy to come to work in the morning." In both of these cases, although the responses are different, the terms under ironical use are nevertheless both carried out to the answering expressions. But obviously they can be explained in terms of conversational implicatures, as "fine" can be replaced with "bad" in a consistent way, and the speaker meanings can be preserved in the whole conversation. Camp believes that the same treatment can be extended to other tropes, including metaphor. Metaphors "will almost certainly not be among" the class of linguistic phenomena where contents can be "semantically encoded".

Is Camp's Gricean criticism charitable? I think it is, but it is so because Hill's articulation of the semantic view is not adequate enough. Hill sees that with a metaphorical expression a speaker usually intends to deliver an independent "thought"(namely a proposition), and he claims that this is the justification for a semantic understanding of it, but the problem is that he does not adequately tell how this thought is semantically different from a normal implicature that can arise from other tropes. He takes "beautiful, nurturing, worthy of worship, and so on" as the paraphrase of "sun" in Romeo's utterance, "Juliet is the sun", but this is the same inadequate paraphrasing strategy proposed by Grice and Searle. In other words, as we saw in the above analysis of Grice, Hill fails to see that the difference between the meaning of a metaphorical expression in the new metaphorical sense and the one with the "literal" or conventional sense is *categorial* by nature, and the former is characteristically *incompatible* with, and *irreducible* to, the latter. To use a jargon from Henle (1958), Hill and his critic Camp both fail to appreciate the fact that "semantic incongruity" is the most important feature of metaphor.

If a word or expression's import cannot be reduced to existing vocabulary and sentential systems, then the word or expression possesses something intrinsic and

unique to itself. It stands for a unique category represented by itself, and it contributes to the language by introducing this new category. The peculiarity of metaphors is that a new word, with its new categorization, comes into being not by means of new coining, but by transposition of an old word which already has been used in a widely socialized convention. A word or expression under metaphorical use, therefore, brings forward a contrast of two possible categorizations of the world, or in other words it brings forward a contrast of two possible worlds, since a world is always a world under categorization. In the case of Sam's pigness, in one of the worlds, the widely socialized world, the category of pigness excludes a certain kind of people to which at least John thinks Sam belong, and in the other world, the newly and metaphorically introduced world, the category of pigness includes that kind of people. In the two different worlds, the respective readings are semantically legitimate, and the choice of reading is a matter of choice of worlds in terms of contextual and pragmatic cues. In this sense, the token of a metaphorical expression is always *pragmatically ambiguous*. Writers alluded to so far in these chapters have failed to see this pragmatic ambiguity of metaphor, in that most of them have taken the widely conventionalized world view as granted. By doing so, they have also failed to do justice to metaphor's function of introducing new semantic units to language. They have failed, in short, to see the linguistically evolutional function of metaphor.

One of the factors that prevent the proper appreciation of this unique function of metaphor, I think, is a problematic and uncritical understanding of what it is to be a linguistic *convention*; and consequently the equally unclear understanding of a host of relations among "conventional meaning", "literal meaning", "speaker meaning", "metaphorical meaning", etc.. Convention is a very important notion in the Pragmatist approach to language, thus in Grice's program, for example, the study of conversational implicatures amounts to studying one of the aspects of utterance meaning in contrast to the conventional meanings of words. For all the Pragmatists, the conventional meaning is the literal meaning of a word, and vice versa. As such, what is not sanctioned in convention is to be understood as something extra-semantic, or something outside of what is said. [1] And since in metaphorical

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[1] Grice (1975), "In the sense in which I am using the word *say*, I intend what someone has said to be

conversations the expressions at issue are used in a way deviant from their conventional senses, it is natural to think that "metaphorical meaning", if there is any such "meaning" at all, is to be classified as something manipulated by speakers themselves out of the verbal meanings of expressions. In accordance to this logic, the postulation of a second, metaphorical semantic unit can be doubted by virtue of Occam's Razor, as it would complicate the theoretic constructs needed.

On the point that literal meaning is a matter of convention, I have no dispute. Quine (1960) says language is a "social art", so what is intrinsic to word meaning should be something recognized and sanctioned by members in a linguistic community, and inculcated as such as a tradition within that community. The critical problem, however, is *what a semantic convention is*. It seems that pragmatists have all assumed that a semantic convention is one that is widely socialized, and in this way they follow a tradition of verbal meaning from Strawson (1950), who makes the distinction between the (literal) meaning and the referring use of a word by specifying that meaning is the "set of rules, habits, and conventions for its use in referring". But what is this set of rules, habits, and conventions? Are they to be recognized by all members of a real linguistic community, or most of them, or more than half of them? And, in appealing to popularity, what is the criterion for one to decide that a particular use of a word is recognized by the community as a rule, habit, convention? Should there be any normative principle? And if there is, who and what kind of authority should the speaker appeal to? All these questions have not been answered. For most of the time, Pragmatists on metaphor simply take semantic convention as something that speakers of a language tacitly assume, but as theorists they themselves also tacitly assume a notion of convention that calls for clarification.

What is at issue, I think, is that these theorists tend to absolutize the social-empirical significance of so-called linguistic conventions, and take the absolutized result as the basis of logical-theoretic enquiry. Grice says that normal conversations are a "contracted" linguistic transaction, in which rational speakers maximize cooperation by following common conventions, or by digressing from

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closely related to the conventional meaning of the words (the sentence) he has uttered."

them if the conversational context calls for it and if both parties of the conversation notice and agree with the digress. But this contractual feature can also be applied to linguistic conventions. A linguistic convention is above all a social contract, to which rational speakers in a community subject themselves as the public set of rules and habits. Given this as the principle, it comes to be a secondary and empirical issue as to how extensive the community is, and how long the convention is to be abided by the members in the community. And as for the empirical aspect, any natural convention, linguistic or whatever, should firstly be initiated by a few contracted participants, and it is through continuing inculcation and transposition of application that it comes to be a widely socialized one. Before a conventional use of a word is universally accepted, if at all possible, by all the members in a linguistic community, it is always possible to conceive that the word, as well as sentences containing it, can be pragmatically infelicitous, say, by being misunderstood by speakers who are not well educated with the new convention for the word. And the pragmatic ambiguity of metaphor, I think, is just one case of the general pragmatic infelicity. The peculiarity of metaphor is that while a new semantic convention (e.g. for "pig") is being introduced, there is a widely accepted one already existing there.

If this account is right, then I think it is not precise to say that metaphorical expressions are used in contrast to their "conventional" senses. As stated in the "Introduction" of the present work, a metaphorical expression characteristically is an *emergent* linguistic event in which the speaker initiates a new convention of use for a word or phrase, so that an expressive need is satisfied. The new convention is a semantic one, in that the word or phrase is used to express something unique and irreplaceable. As such, the metaphorical expression is the only linguistic entity to bear the new message, and this is another way to say that the message is encoded into the expression. Whether or not the convention is successful, of course, depends on whether it is accepted by the audience of the expression, and its success or failure can be judged by the response or further rounds of exchange in the conversation. If it is successful, the speaker and her audience then contrive a linguistic community for the expression, a community with at least two persons who make a convention public to themselves. It is a matter of social-linguistic effect whether this convention will be

accepted or not by other speakers, perhaps eventually by all speakers, in the general community of a natural language. But come what may, the effect usually does not lie in the intention of the speaker, whose immediate linguistic intention is to convey a message to her audience *hic et nunc*. If the convention does spread to more and more speakers, the new meaning, together with the new usage in similar contexts, will be registered into the literal vocabulary of a wide extension of speakers. And this successful colonization of the new convention of use, I think, is the process of dead metaphor. Dead metaphor is not a semantic phenomenon, but a social inculcation in the meta-semantic sense.

To conclude the present chapter on the pragmatic-semantic complex of metaphor, let's go back to the starting point and, in terms of Austin's jargon of illocutionary speech acts (Austin, 1962), make a short and explicit distinction between metaphor and other tropes. Like most rhetorical tropes, metaphorical expressions involve the extraordinary use of language. Extraordinary, because the traditional and widely accepted literal meanings of words and phrases are not utilized in their traditional and standard senses, nor are they used as such to simply *assert* something. Furthermore, however, the speech acts, namely the performative functions of language, which are involved in metaphors characteristically differ from other standard tropes. In uttering a standard trope like irony, the speaker usually performs the act of *implicating*, that is, indicating something else than what the expression superficially states. In uttering a metaphor, however, at least two illocutionary speech acts are performed. On the one hand, the speaker aims to *assert* a fact, delivering a proposition which the expression's *locutionary* contents can express. And on the other hand, and logically prior to this assertion, the speaker implicitly performs a second act, namely the act of exploiting the word under metaphorical use to *name* a new category. This second act is unique to metaphor, and it is a special act, in that the act is not performed on external objects, but to language itself—it is a *Reflective Speech Act*.

IV. A COGNITNIVE DISCLAIMER FOR METAPHOR

People usually associate the command of metaphor with a clever mind. Academically, this common sense can be traced back again to Aristotle (2008). Aristotle praises the command of metaphor as "the greatest thing" for a poet, and as a sign of "genius". His reason is that to make and comprehend good metaphor one needs good perception of "resemblance". A metaphor puts two alien words together, and by this "impossible combination" it expresses "true facts" of the world. In this way, the understanding of a metaphor amounts to solving a "riddle", since one has to exert one's cognitive power and see the resemblance between two subject matters that is otherwise ignored. So, in the example of the metaphor, "A man I saw who on another man had glued the bronze by aid of fire", obviously "glue" and "fire" are a case of "impossible combination". The poet was talking about an art of jointing metal, which was done with the aid of fire, but the purpose of the art was to weld pieces of metal together. For lack of a proper word to express "weld" in his mother tongue, or perhaps because the counterpart of "weld" in his mother tongue was stylistically or phonologically improper, or, still, because the poet simply wanted to demonstrate something unusual, he wrote "glue" in the place of "weld", and in so doing he posed a cognitive riddle to his reader, who has to guess what "glue" means in the context.

A little more scrutiny will reveal that to solve the riddle, one needs to exercise at least too kinds of cognitive power, namely imagination and computation.[1] With imagination one gathers as many points of resemblance between welding and gluing as possible, but imagination itself needs to be constrained, since overabundance of resemblance would make the metaphor pointless and useless. As such, the audience will have to calculate various parameters from the context, and screen out irrelevant factors from consideration. This calculation is not merely a stark comparison of common and superficial attributes between welding and gluing, such as substance attaching, skillfulness, and so on, but also mapping of complicated relations: in both

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[1] Thus Lakoff and Johansson say that metaphor is "imaginative rationality" (1980, p 235).

of the examples above there is an agent (the artist), two operational subjects (pieces to be attached) , a third operational object (the bonding medium), and the act by the agent of putting the two subjects together by way of administration of the object to them, and so on. In this sense, a metaphor involves a complicated and systematic mapping of relations, and is cognitively interesting. Incidentally, it is due to the recognition of this second, relational resemblance in metaphor that Aristotle realized this linguistic phenomenon can serve to remedy gaps in vocabulary. That is to say, metaphorically used words like "glue" can refer to the new job done on metal which it has not yet been used to do, and its meaning will be expanded thereafter. [1]

This Aristotelian insight on the comparison involved in metaphor has been echoed by some contemporary scholars from empirical perspectives. Gentner (1988; 2008), for example, proposes to use his "structure-mapping theory" to derive distinctions between various kinds of metaphors. The basic intuition of the so called structure-mapping theory is that an analogy or comparison is "a mapping of knowledge from one domain (the base) into another (the target) which conveys that a system of relations that holds among the base objects also holds among the target objects." Thus an analogy can even be a way of noticing relational commonalities independently of the objects to which those relations apply. In sophisticated analogies, the base object and the target object "do not have to resemble each other at all", but as long as some high-order relation complex can be worked out, the analogy is successful. [2] In accordance with this theory and the distinction of analogies in terms of the properties (superficial attributes or systematic relations), Gentner classifies metaphors into four kinds, and the basic two kinds are "attributional metaphors" and "relational metaphors". The former (e.g., "Her arms

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[1] See Footnote 3, p 8, for another example of the remedy of semantic gaps from Aristotle.

[2] Gentner (1988) gives an example for this high-order relational analogy: "Carnot in 1824 explained heat flow by analogy with a waterfall. The analogy conveys that just as a gradient from a high level to a low level will cause water to flow, given a path, so a gradient from a high temperature to a low temperature will cause heat to flow, given a heat path. This is a typical analogy in that the higher-order relational structures are identical in base and target if the proper low-order correspondences among objects and functions are made."

were like twin swans"[1]) are "mere appearance matches", in which attributes like "long," "thin," and "graceful" can be mapped from the base domain of "swans" to the target domain of "her arms". The latter, namely relational metaphors, can be analyzed into a high-order analogy with structural mappings; our analysis of the Aristotelian metaphor in the previous paragraph is exactly of this sort.

It is perhaps because of this main theme of comparison or analogy that Aristotle has been credited by many contemporary writers as the pioneer of the "*comparison view*" of metaphor, the most deeply entrenched view of metaphor. [2] According to the description of one of its critics, Black (1954), the comparison view of metaphor can be understood as a sort of "substitution view" of metaphor, because it holds that a metaphorical statement might be replaced by an equivalent literal comparison. In other words, a metaphor, according to this view, is an elliptical simile. To say "Richard is a lion" amounts to saying "Richard is like a lion", the two statements being formally different in that while the latter explicitly makes the resemblance between Richard and the lion, the former just implies it. Metaphor and simile are too figures of speech which nevertheless convey the same import. From a general point of view, even some of the important writers of the Pragmatist approach, Grice and Searle for example, are committed to the comparison view, since for them metaphor is a trope by which the speaker says something but implies something else, and this "something else"—the "implicature" or "speaker's meaning"—can be worked out only with the assumption of a comparison between the subject matters under discussion. In Searle's example, the speaker meaning or implicature of "Sam is a pig" is paraphrased as "Sam is filthy, gluttonous, sloppy, and so on", and this is because Sam is understood as being like a pig in that he is filthy, gluttonous, sloppy, and so on. Comparison gives rise to implicature.

A radical comparison view would invite a host of doubts. The simplest question might be this: if metaphors are disguised similes, why do people use it at all, let alone use it so extensively? One of the answers, traceable to Aristotle again, is that

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[1] Linguistically speaking, this is not a metaphor, but simile.

[2] See, for example, Johnson (1981) and Glucksburg (2001).

metaphor possesses stylistic and aesthetic advantages over simile. For Aristotle, it seems that the expressive force of simile and metaphor is interchangeable, so he says, "All the ideas may be expressed either as similes or as metaphors; those which succeed as metaphors will obviously do well also as similes, and similes, with the explanation omitted, will appear as metaphors (Aristotle, 2008)." But obviously metaphor is stylistically more economic than simile, and it is more flexible in satisfying metrical and phonological needs. Precisely because of these advantages, he studied metaphor in line with such weirdos as "strange words", "lengthened words", "altered words", and "contracted words". Among these, metaphor "gives style clearness, charm, and distinction as nothing else can: and it is not a thing whose use can be taught by one man to another."

But to praise metaphor in terms of stylistic merits is, in essence, to praise it as an ornamental means of language. One of the major reasons for the contemporary surge of study on metaphor—to the extent that there has arisen an independent field of scholarship called "metaphorology" [1]—has been the belief that metaphor is cognitively more serviceable than other figurative speeches like simile. Contemporary writers who appreciate the cognitive power of metaphor seek to argue that metaphor possesses some special and unique function that other devices do not possess, either in terms of the process of apprehension, or in terms of its effects. The famous work by Black (1954) belongs to the first genre. In his work, Black revisits an idea from Richards (1936), the idea that "when we use a metaphor we have two thoughts of different things active together and supported by a single word, or phrase, whose meaning is a resultant of their interaction". Black enriches this "interaction view" by introducing the notion of a "system of associated commonplaces" to replace Richards's "thought" that a word can evoke. Each word, in its literal use, is associated by speakers with a system of commonplaces. The word "wolf", for example, is associated usually with "fierce, hungry, engaged in constant struggle, a scavenger, and so on." To put the word into metaphorical use, e.g. "The man is a wolf", is to evoke this system of commonplaces to the principal subject (the man), and in terms of the

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[1] The term was firstly coined by the German philosopher Blumenberg. It is now favorably used by quite a lot cognitive linguists. See, for example, Taverniers (2002).

commonplace system one can associate with "man", some of the commonplaces in the "wolf-language" will be suppressed, and some emphasized. In short, the metaphor "organizes" our view of man. And to generalize this lesson, on can say that metaphors organize our view of its principal subject by interactive apprehension of the commonplaces associated with its subject term and predicate term.

Black believes that the result of such interaction is a new and "metaphorical meaning", which cannot be reduced to literal paraphrase. At the same time, since his view of the meaning of a word is couched with "commonplaces"—that is, with cognitive information—which people associate with the subject that the word refers to, a new metaphorical meaning is therefore a new "cognitive content" .[1] Since this metaphorical meaning cannot be clearly paraphrased by literal means, one can say that the cognitive content cannot be expressed by literal means, and any effort to capture the gist of a metaphor will pay the price of some "cognitive loss". As such, Black emphasizes that this use of a "subsidiary subject" (e.g., "wolf") to foster insight into a "principal subject" (e.g., "man") is a distinctive "intellectual operation", demanding "simultaneous awareness of both subjects but not reducible to any *comparison* between the two". Suppose one goes after Grice and Searle and tries to state the cognitive content of a metaphor in "plain language". Up to a point, one may succeed in stating a number of relevant relations between the two subjects, but the set of literal statements so obtained "will not have the same power" to inform and enlighten as the original metaphorical expression. The literal paraphrase inevitably says too much—and with the wrong emphasis. But more importantly, Black emphasizes that however much you paraphrase, you still cannot catch the original import of the metaphor. "The relevant weakness of the literal paraphrase is not that it may be tiresomely prolix or boringly explicit—or deficient in qualities of style; it fails to be a translation because it fails to give the *insight* that the metaphor did." This is why a paraphrase will always be a "cognitive loss".

In his argumentation, Black grasps the one key problem of the study of

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[1] See Chapter II of the present work for a critical skepticism against such a naive cognitive view of word meaning.

metaphor, namely its paraphrase puzzle. And it is from this very puzzle that he makes the promising claim that metaphor possesses a certain irreplaceable, irreducible, and indispensable cognitive feat. For the purposes of the present chapter, it is noticeable that when he argues for interactive cognition, he deliberately distinguishes it from general comparisons. This gives rise to a curious problem. If metaphorical interaction is not comparison or analogy, then what kind of cognitive process is it? According to the interaction view, if the principal subject (e.g., a man) possesses properties A, B, C, D, and so on, and the secondary subject (e.g., a wolf), A, C, E, G, and so on, then the metaphor which takes the two subject terms as the metaphorical frame and vehicle respectively (e.g., "Man is a wolf") will provoke a "filtering" cognition on behalf of the principal subject. The process of this filtering can be nothing but emphasizing the common properties ("commonplaces"), i.e. A and C, and perhaps some others, and at the same time suppressing those properties associated with the secondary subject but not with the principal one, i.e. E, B and G, and perhaps more. But if this understanding is right, then the interaction cognition IS comparison cognition. A comparison is the study of two subject matters in light of each other. Every two things are similar to each other in some aspects, and they are dissimilar to each other in some other aspects. So, any comparison will be a filtering process. Perhaps the Blackean interaction is somewhat special, and somewhat more refined than general comparisons, but that is no evidence to see it NOT as a comparison.

Furthermore, a second question is why understanding a metaphor as accommodating an interactive comparison will make the cognition of its principal subject more interesting and more fruitful than in a relevant simile, which is supposed to allude to an explicit comparison. Syntactically, a metaphor is usually just a simile with the "like" dropped away. How does this syntactical alteration result into a substantial improvement of cognitive function? In his criticism of the comparison view, Black says that the "main objection" is that "it suffers from a vagueness that borders upon vacuity". In other words, when one says, "A man is like a wolf", there is no specification about what aspects in which a man is like a wolf, but in order to be informative a statement should state explicitly those aspects . If this is the major

weakness of simile, or metaphor understood as abbreviated simile, then it is also the same weakness of metaphor understood as interaction. Why is there an additional power in metaphors that enables them to "evoke" more informative and specific interactions which similes fall short of? Black never bothers to address this question. He just takes it for granted that when one says, "X is M", one "evokes" some imputed connections and resemblances which, prior to the construction of the metaphor, one would have been hard pressed to find. So, Black thinks that it would "be more illuminating" to say that metaphor can "create" the similarity than to say that it formulates some antecedently existing similarity.

If one wants to see the world more cleverly, one of the tips for one to follow is to delete the "like"'s in one's expressions! Black is not alone in this belief. In both philosophical and empirical studies, there has been an impressive list of scholars who follow this idea. The philosopher Goodman (1976), for example, who is a professed follower of Black on the topic of metaphor, also believes that metaphors can "create" similarities which similes fall short of. Goodman reasons smartly that since metaphors can creates similarities and similes are just explicit statements of existing ones, it is wrong to conceive, as commonsense usually requests, that metaphors can be reduced to similes; instead, similes are to be reduced to metaphors. [1] The linguist Glucksberg (2001), whose major intention in his work is to argue for metaphor's capacity to create *ad hoc* categories , also sees that the priority in creating more similarities is one of the systematic features that distinguishes metaphor from simile. He carries out experiments to confirm this, asking people to paraphrase pairs of metaphors and similes, and to his pleasure he discovers that when facing a metaphor, people tend to associate "many more non-literal emergent attributions". For example, for the metaphor, "Some ideas are diamonds", testees tend to paraphrase it into "Some ideas are brilliant, fantastic, insightful, creatively more interesting, and so on". But for the relevant simile, "Some ideas are like diamonds", the typical paraphrase is something like "Some ideas are rare, desirable, shiny, valuable and so on", all the literal attributions of which are familiar basic-level ones.

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[1] For yet another philosophical work along the Blackian vein, see Beardsley (1962).

Can metaphor *de facto* invoke more association of similarities than simile? Probably yes. Is this a sign of some cognitive privilege *de juri*? Arguably not. The fact that metaphors are immediately more provoking than similes can be explained by many factors, above all psychological ones. As the psychologist Ortony (1979) says, metaphor is more "vivid" and more interesting by virtue of its presentation of a conventionally false fact to the audience. In Davidson's theory (Davidson1978), this point on psychological unexpectedness plays a central role. Metaphors initiate surprise to their audience, and then invite curiosity in thinking over possible similarities between the subjects under discussion. In this regard, Davidson thinks that metaphors, with their own force as a speech act, draw the attention of their interpreters. But this special power is extrinsic to the content of metaphorical statements themselves. With proper contexts and stimuli, one can conceive of similes as also achieving the same job. That is why Davidson decisively believes that it is false to think that metaphors possess some special "cognitive contents". To talk about cognitive contents, at least in the sense that Black conceives, is to talk about something intrinsic to the content of the utterance. But, intrinsically, the cognitive process of metaphor, as argued above, is nothing but comparative or analogical thinking, which can happen equally under simile. This is why Davidson (1978) says that "a metaphor directs attention to the same sorts of similarity, if not the same similarities, as the corresponding simile," and "metaphor and simile are merely two among endless devices that serve to alert us to aspects of the world by inviting us to make comparisons."

The Blackian passion for the cognitive force of metaphor, however, has been far-reaching. It is a new tendency in cognitive linguistics for scholars to go much further than Black ever did by extending the metaphorical cognition from a merely linguistic experience into a kind of general cognitive experience of the world. Lakoff and Johnson, in their famous work (1980), think that our conceptual system is fundamentally metaphorical. Specifically, the human conceptual system is structured in such a way that "less well specified domains of experience", such as physiological, philosophical, and newly theoretic experiences, are always structured by "basic domains of experience", such as motor, visual, and audio experiences. In language,

this can be made sense of by seeing that speakers always tend to qualify abstract, profound and less delineated terms in terms of familiar terms in statements which are fundamentally metaphorical. In such examples as "The argument is attacked" and "His idea is well received", after some analysis one can see that they are based on basic metaphorical thoughts, namely, "Arguments are wars" and "Ideas are objects". And, along this reasoning, it is easy to see that in these basic metaphors, the metaphorical vehicles (e.g., "war" and "object") are playing some role of cognitive models, from which the principal objects are defined by a "metaphorical" process, probably as the same mechanism as the Blackian "interaction". [1] In view of the fact that such a cognitive process is so universal in both science and daily life, Lakoff and Johnson get sufficient confidence to say that "metaphor is ubiquitous in language".

Part of the difficulty for a linguist in evaluating the project by Lakoff and Johnson is that for them the term "metaphor" is no longer used to mean a specific and observable linguistic phenomenon *per se*, namely the transference of words, but instead a general cognitive strategy or epidemic experience of which the linguistic phenomenon of metaphor is just a symptom. People will of course utilize and exploit their basic and familiar cognitive experience, and by this utilization and exploitation they get heuristic experience in exploring abstract things. This cognitive method is nothing new; it has been studied for ages by philosophers and scientists under the name of "analogical thinking", "symbolic reasoning", "scientific modeling", "structural mapping", and so on, and this strategy will be carried out not only in the cognition of the world, but also in the construction of human conceptual systems. But, ultimately, the central process of this strategy is the thinking method of analogy, and in this sense to call them "metaphorical cognition" does not change the nature of the issue. Granted that the linguistic phenomenon of metaphor is perhaps more convenient than other tropes in manifesting this cognitive strategy, there seems to be no strong reason to say that metaphorical experience is exclusively and qualifiedly more analogical than other linguistic experiences. To say—or to conceive, assume, postulate—that "arguments are wars", is to be committed to an analogy

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[1] "All of the dimensions of our experience are interactional in nature," Lakoff and Johnson (1980, p179).

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between arguments and wars, perhaps in a systematic way as Lakoff and Johnson say, but the same analogy can be operative in the simile of "arguments are like wars".

So far I have reviewed the attempt by some scholars to take metaphor as a special and privileged cognitive means, and following Davidson I have taken a skeptical attitude toward this attempt. The primary reason for this skepticism is that these scholars have proved the existence of nothing more special than general analogical thinking in the comprehension or creation of metaphors. But analogical thinking, as a cognitive method, is not by itself a *sufficient* factor to distinguish metaphor from other linguistic tropes, at least not from simile. Having done this, let us now ask a more provocative question. If analogy is not sufficiently exclusive to metaphorical expressions, is it *necessary*? In a more comprehensible way, the question can be put as: Does a speaker have to perceive some specific similarities or comparisons when she puts forward a metaphorical expression? Should her audience also have some analogy in mind in order to accept the expression in its metaphorical sense? At first glance, this question seems to be flagrantly irrelevant. In the literature, various efforts have been put forward by scholars to criticize a naive comparison view of metaphor, but the common sense is still there that analogical thinking is the basis in producing metaphorical speech. A metaphor is a transference of words, but transference cannot happen for nothing and from nothing. The most natural thing to think concerning word transference is that in order for one to transfer an alien word into the present context, the object or thing referred to by that word should be somewhat similar to the present subject matter. And even if the speaker, in making the metaphorical utterance, cannot fully articulate the similarity or similarities, one can still charitably think that there *should* be some similarity or similarities , however vaguely it is perceived by the speaker.

Something problematic already arises in this modestly defensive remark. First of all, to say that something *should* be there is no reason that something IS there. True, speakers would be habituated in the long course of language use to think that around a metaphorical expression, just like around a simile, one can think about some factual similarity or similarities. This is no evidence, however, to show that in putting

forward or being confronted with the expression the similarity or similarities are *actually* present to the speaker or her audience. The claim can be even more pointless if one thinks over the truism that everything in the world can be similar, and dissimilar, to everything else. Theoretically, it is possible to put any two random words together, and make it in the order of an assertive sentence, the result of which can be a statement. And if the statement makes no sense in the literal way, it can be made sensible by interpreting it as a metaphor. To take a radical example, think about the example contrived by Chomsky (1957), "Colorless green ideas sleep furiously". As Chomsky says, the sentence is grammatically legitimate, but it is semantically nonsensical. It is nonsensical, of course, because the sentence cannot get a sensible interpretation with literal categorial systems currently operative in English. But as Searle (1979) says, it is not difficult to conceive that in specific contexts, this sentence can be made sensible metaphorically .[1] Now, given that this example is a candidate of metaphor, the question then is: what kind of similarity can one specify when it is uttered?

The similarity or similarities should be worked out by speakers in order to make the subject matter cognitively sensible, but the point is that it might take a long posterior effort to achieve that. This delayed effort, however, is no evidence to show that the sentence is not a metaphor. A metaphor, as Aristotle's classic definition goes, is above all a case of transference of words. It presents an abnormal and unconventional combination of words, and presents it in such a way that an attributive assertion is made. When literal interpretation of the statement is checked by difficulties, speakers naturally take the statement as metaphorical. This interpretational turn is the sign of metaphoricality, but it does not by itself mean that a specific cognition based on some new similarity or similarities is in place. The recognition of metaphoricality is one thing, and the cognition afterwards is another. The former is semantic by nature, while the latter is pragmatic. It is a very familiar

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[1] Of course, to make the sentence metaphorically sensible is still a very delicate and complicated job, since there are at least four category mistakes existing in the statement. Indeed, this example, if interpreted as a metaphor, would be a notorious case of what Searle calls "mixed metaphor", which is "stylistically objectionable", but anyway not necessarily "logically incoherent".

linguistic experience for us that sometimes we utter something, and we know that it is significant, but it is extraordinarily difficult for us to tell what the significance is. [1] Similarly, in saying something metaphorically, it is possible for one to have a specific similarity in mind between the subject matters under discussion, and intend it, but the metaphorical expression can be so "meaningful" that it acquires much more similarities from the audience. Goodman and Black call this the "creative capacity of metaphor", but in the present context this cognitive creativity that metaphor can initiate is the very reason to think that the cognition itself is not present, or not sufficiently present, in the utterance of the expression—creation is to make something out of nothing.

The above reasoning is largely theoretic by nature, and the Chomskian example is perhaps too artificial to be convincing. Let's think about some real examples in natural language to confirm the disclaimer of analogical thinking in metaphorical expressions. In classic Chinese writings, especially in the *Pre-Qin* Golden Age, two thousand years ago, there was a widespread linguistic phenomenon called "*Tong-jia Zi* (通假字)". The term can be translated into English as "borrowed words", but the specialty of this phenomenon is that the borrowing is not absorbing words from foreign languages into the native tongue, as those items in English introduced from Latin, Greek, or other Indo-European languages. Rather, the transaction is done entirely in Chinese. Precisely why there was such a widespread borrowing phenomenon is a topic beyond the scope of the present study, but one of the natural interpretations may be that at that time the Chinese language was undergoing a rapid development, and the relatively young language at the time took measures to grow its vocabulary in order to satisfy new expressional needs. What is interesting for our purposes here is that the *Tong Jia* borrowing or transferring can happen very freely. Empirically there is no principled rule, cognitive or semantic, to constrain the borrowing, and two of the familiar borrowing strategies are actually based on homophony or homomorphy. That is, a word A is borrowed to substitute for a word B, because the two words are phonically or morphically similar to each other,

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[1] Tao Yuan-ming, the famous classical Chinese poet, wrote famously, "There is something there, but when I try to tell it, I get lost"("*Cizhong You Zhenyi, Yu Bian Yi Wangyan*", translation mine).

although when the borrowing happens the two words are semantically unrelated, and their referred objects are cognitively unrelated as well.

Even today this experience is not alien to native speakers of Chinese when the vocabulary of its language is quite mature, but the various expressive needs still call for transference of words. Let me give two amusing examples from internet jargon which are becoming a part of mundane Chinese vocabulary. One of the cyber neology is *"Tong-xie"*（"童鞋"）, which means kids' shoes in the conventional sense, and is now widely used to stand for classmates from school, which are referred to in conventional vocabulary as *"Tong-xue"*（"同學"）. Now obviously, as a Chinese speaker can easily tell, the transference can be successful primarily because the pronunciations of *"Tong-xue"* and *"Tong-xie"* are quite similar to each other, but at the same time it is dubious when one meets for the first time a sentence like "Most of the Tong-xies will come to participate in the school anniversary" and realizes immediately that "Tong-xie" is here used *metaphorically* to stand for her study fellows, since the literal interpretation makes no sense. But how many of the factual similarities between study fellows and kids' shoes can be presented in the speaker's comprehension of the expression? Perhaps hardly any, since the transference is clearly phonically guided. To emphasize this phonic guide, of course, does not mean that the metaphor is cognitively inapt; on the contrary, as the widespread usage of it demonstrates, it is an apt and interesting metaphor, since after some afterthought one can gradually construct many interesting similar properties between the two subjects, such as intimacy, nostalgia, partnership, innocence, and so on. The point, however, is that all these properties can be mapped out as posterior cognitive results.

An immediate question for the above example is this: in the past chapters it has been repeatedly emphasized that a metaphor is used characteristically because the speaker is in dearth of vocabulary to express herself, but now in the foregoing example the category of classmate already has a verbal tag, namely *"Tong-xue"*, so then why is it necessary to introduce a new word to name it? One should notice that a need is always a need in context. True, *"Tong-xue"* has been the standard word to refer to classmates, but precisely because of this it has been used in many different

contexts, and its wide application and context-neutrality as such can make it into a characterless word. In a casual, intimate, and somewhat self-mocking context, the speaker needs a word which is coextensive with "*Tong-xue*" but which at the same time can portray its subjects in a special way. The use of "*Tong-xie*" in place of "*Tong-xue*" puts forward a new category in which classmates and kids' shoes are dragged together as a whole. From a cognitive point of view, this new categorization is incidental, since it is occasioned by a phonic coincidence, but happily and surprisingly it achieves the expressive need, which is appreciated by the audience on a second reflection of the expression, not at the first encounter. Black is right in saying that a metaphor can serve as a "filter", by "suppressing" some commonplaces of a subject (e.g., such irrelevant properties as studying, same age, class attendance in the case of "classmates") and "emphasizing" some others (e.g., intimacy, nostalgia, partnership, innocence, and so on, in this case). But he fails to see that this analogical comparison (namely his "interaction") can be a late course, perhaps much later than the linguistic event of uttering and accepting the metaphorical expression.

The special expressive need and want of vocabulary can be more dramatically embodied by a second example of phonically guided word transference. Recently, it has been a normal practice for Chinese internet blog writers to use the phrase "*He-xie*" ("河蟹", river crab) to stand for another phrase "*He-xie*"("和諧", harmony). The intention is usually to exploit the phonic identity of the two phrases and in doing so to say something euphemistic about violent and suppressive actions from the Chinese government against civilian protests, which in official propaganda are usually described as a way to implement the ideal of constructing a "harmonious society". The expressive needs of blog writers to use the crabby "*He-xie*" are therefore pragmatic. On the one hand, it is advisable for dissident writers to keep a due distance from the word "*He-xie*" (harmony), since they know that the government is highly watchful of the use of this political term and may probably be taking strict means to screen and delete the online essays in which the term is explicitly and ironically used. On the other hand, the crabby term helps to express some properties, still in an ironic way, that blog writers take to be true of the governmental behaviors in carrying out the political ideal of social harmony which

are not acknowledged by the government. Such properties are made salient by comparison with the commonplaces associated with the image of a crab, an unfortunate creature that has been widely portrayed in Chinese "commonplaces" (folk cognition) as being serpentine, clumsy, insidious, tyrannous, and not harmonious at all. The expressive force of the metaphorical use of such a term, of course, will not be merely ironic, as Camp (2006) would insist. It not only implicates that the "harmonious society" is "not harmonious", but also assertively says something more than that, although this something more may not be immediately comprehended by the audience when confronted with the expressions in which the crabby term is used.

The conclusion of the analyses in the present chapter is now clear, namely, despite its being a strong intuition that metaphorical speeches are produced on the basis of some special analogical cognition, theoretically this is not necessarily the case. On the face of it, metaphor is just a linguistic phenomenon, and the distinguished feature of it is the transposition of words. Such a transposition can be carried out by speakers without necessarily realizing the existence of any specific and full-fledged analogical contents and processes in the back stage, and furthermore these analogical contents and processes are not sufficient factors to distinguish a metaphorical phenomenon from other tropes in natural language. To iterate this conclusion , of course, is not to deny the fact that in daily uses of metaphor speakers are always accustomed to brainstorm some comparisons they have in mind, and their audiences are also usually obliged with such. These comparisons are a good practice, and if they are illuminating they help speakers to reinforce and entrench a metaphorical use. The more comparisons a metaphor can invoke, the more chance it will secure itself to survive its present conversational context and register its vehicle term into the conventional vocabulary. The only distinction that a linguist of metaphor should keep in mind, however, is that these comparisons and analogies are logically not intrinsic to the linguistic trope of metaphor.

To understand these associated comparisons and analogies as only contingently but not intrinsically associated with metaphors is to understand them not as a part of

the verbal meanings of metaphor, at least not directly so. In this regard, it should be pointed out that, unfortunately, most of the philosophical and cognitive linguists who have been working hard to make "cognitive claims" (Hesse, 1988) concerning metaphors are more or less committed to the fallacious identification of these cognitive contents directly as the semantic contents of metaphor. Black, for instance, at the very beginning of his work, declares that the study of metaphor is a matter of "semantics", and yet the central task of his work is devoted to explaining the interactive cognitive process, which ends in the discussion of special "cognitive contents" and "cognitive loss" in the comprehension of metaphor. As for the cognitive linguists, one of the tenets of their very discipline is to take language meaning as a matter of conceptualization in the mind, and conceptualization itself is largely a matter of building relations between "domains" of "cognitive experience", of which "metaphorical mapping" is recognized as a typical strategy. Indeed, the tendency to equate semantics with cognition is so common that even if it is not an integral ingredient of their theories on metaphor, some scholars still take it for granted and couch their semantic theory in terms of general cognition. The linguist Glucksberg, for instance, insists that metaphorical expressions are essentially "categorical assertions", not comparisons, but in his analysis of the meaning of metaphorical assertion he still takes general cognitive descriptions (e.g., "aggressive", "cold") as a part of the meaning of general terms (e.g., "shark"), and the categorization occasioned by metaphorical speech is also tacitly assumed by him as the semantic nature of metaphor.

In this regard, the critical remarks of some of the Pragmatists, in particular Searle (1979) and Davidson (1978), can serve as valuable theoretic reminders. Searle, in his criticism against the comparison theory of metaphor, urges the awareness of the distinction between a theory of "metaphorical comprehension" and that of "metaphorical meaning", and he makes it clear that the comparison theory can make sense only if it is understood under the former kind. Davidson makes the point even clearer and more direct. His idea is that a metaphorical expression, by saying that "S is P", should be a *prima facie* case of assertive statement. By itself, the statement only *says* that S is P, and nothing else. Being so, the objective sentential meaning of such a

statement should be explained from the statement itself, not anything else. That is to say, the semantic properties of "Sam is a pig" should be explained by the same mechanism as "Sam is a lawyer", in terms of such semantic notions as the truth value of the sentence, the extensions of the components, the compositional principle, and so on. The statement does not say that there is a similarity, still less what the similarity is, between Sam and pigs, and it is a theoretic offside to impose this similarity onto the *meaning* of the statement. On a similar score, this reasoning should even be carried out for the meaning of similes. A simile, like "Sam is like a pig", says that there is a similarity between Sam and pigs, so it is within its sentential meaning that there is a similarity. But, the key point is that the simile, at least in its simple statement form in the present example, does not say *how* Sam is like a pig or *what* the particular similarity between the two unfortunate subjects is. It *says* and *means* a similarity, because there is a "like" in the sentence, and the meaning of "like" is "similar to". But to spell out the contents of the similarity on behalf of the speaker would, again, commit a theoretic offside, that is, it would transgress the borderline between what is semantics and what is pragmatic (e.g. cognitive in general).

Seeing the issue in a broader viewpoint, and recalling the modal argument from Kripke presented in Chapter II, the confusion between the meaning of a metaphor and the comparisons and analogies it can occasion is just another case of the general confusion between verbal meaning and general cognitive descriptions. Kripke (1972) argues that the meaning of a natural kind term cannot be directly reduced to, or identified with, the definite descriptions people usually associate with the objects under its reference, because it is possible to conceive that in some scenarios all these descriptions fall short of the objects, which are nevertheless still necessarily referred to by the natural kind term. On a similar score, one can exercise a modal reasoning, and think that for a metaphor, any specific and articulate similarity can fall short of the characterization of the meaning of the metaphorical vehicle, which is nevertheless still used as a term to refer to a general category in the same way as a natural kind term is. To make the statement that "Sam is a pig" is to take "pig" *prima facie* as a general term in a specific way. To understand the special and metaphorical meaning of "pig" as well as the whole statement in terms of any specific similar

traits, such as being filthy, gluttonous, sloppy, and so on, can offend the modal intuition, because it is possible for one to think that any of these traits can miss the point the speaker wants to make. For example, Sam may be a clean and neat guy, not at all "filthy", and the speaker knows this well, yet still she knowingly says, "Sam is a pig"!

In arguing that general descriptions associated with a term should not be counted as the meaning of the term, Kripke never says that these descriptions are irrelevant. The point is that these descriptive bits of information are pieces of empirical cognitive knowledge (or "commonplaces" in Black's terminology) of the objects under the reference of the term. Semantically speaking, they are not intrinsic to the term itself. Similarly, the argument that general cognition, in the form of comparison, analogy, mapping and modeling should not be counted as the meaning of a term, is not to mean that these cognitions are trivial and irrelevant. Metaphors, just like any linguistic trick, can be used in general contexts in many ways and for many purposes, sometimes as a constructive tool to express a new idea, sometimes as a heuristic measure to help teach something dark to other folk, and so on. All in all, however, a metaphor is ultimately just a linguistic phenomenon, a symbolic device by itself, not to be confused with the subject matter that is symbolized. As a linguistic device, it transfers words, exploits words, redubs words, updates words, so that words can better serve the enterprise of human cognition. In this sense, and only in this sense, metaphor acquires its unique and special cognitive function. This function is not constructive, nor heuristic, but *instrumental* by nature—that is, it maintains and remedies the lingual boat when it sails on its journey, to fish, to fight, to date, to see the sunset, or whatever.

V. THE MEANING OF METAPHOR

As Black (1954) observes, the problem of metaphor is not a syntactical one, but above all a semantic one. Syntactically, a metaphor can be uttered in any sentential form, and a simple metaphorical expression is just a simple statement. The difference of behavior between statements like "Sam is a pig" and "Sam is a lawyer" can be appreciated firstly from the semantic point of view. Semantically speaking, on the one hand the outstanding feature of "Sam is a pig" that comes first above anything else is its flagrant falsity in terms of its conventional meaning.[1] On the other hand, if our earlier analysis in Chapter III is right, a speaker of a metaphor characteristically does not intend a false proposition to their audience. For the speaker a metaphorical expression can be uttered precisely in the same manner as a normal statement, intended as an assertion of some attribute (e.g., "pigness") to a subject (e.g., "Sam"). Just like any contingent assertive statement, a metaphor can be true and can be false in its new and "metaphorical" sense. A cooperative audience of the metaphor gets the new sense of the metaphorical vehicle ("pig") and the whole statement, and it is in this new sense that the audience will carry out the semantic evaluation—nodding or shaking to it—as the first step to further rounds of conversational exchange. As such, a metaphorical sentence token represents a semantic complex. It can be interpreted in terms of its conventional and widely socialized sense (so as to represent a characteristically false propositional content), or in terms of the new sense that is conventionalized in the conversation (so as to represent a new and contingent propositional content). Behind the semantic complex, a metaphorical expression is deeply ambiguous in the meta-semantic sense.

This meta-semantic ambiguity can be appreciated in the light of a similar situation raised by Stalnaker's classic work on modal semantics (1978, 1970). Suppose a speaker says "He is a fool", looking in the direction of Daniels and O'Leary. Suppose it is clear to the audience that O'Leary is a fool and that Daniels is not, but the audience is not sure whom the speaker is talking about. Compare this with a

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[1] In the words of Beardsley (1962), this can be called the "metaphorical twist".

situation in which the speaker says "He is a fool" pointing unambiguously at O'Leary, but the audience is in doubt about whether O'Leary is a fool or not. In both cases, the audience will be unsure about the truth value of what the speaker says, but the source of the uncertainty seems "radically different". In the first example, the doubt is about what *proposition* was expressed (i.e., "Daniels is a fool", or "O'Leary is a fool") under the sentence token "He is a fool", while in the second example there is an uncertainty about the facts (i.e. whether O'Leary is a fool or not). Now given these two kinds of uncertainty concerning the truth value of a sentence token, we can see that a metaphorical token can be a special case that embodies both kinds of uncertainty on a single occasion, albeit in a delicate way. On the one hand, it is possible for the audience to be unsure of what proposition the sentence "Sam is a pig" is asserting, given that "pig" can be interpreted in two ways, and on the other hand, given that the proposition is made clear in the context, it is still *logically possible* for the audience to be unsure whether the proposition is true or false by content. [1]

One of the guiding ideas of Stalnaker in setting his examples is that the proposition actually conveyed by the assertion of a particular sentence depends on *presuppositions* shared by the participants in the conversation.[2] These include presuppositions about actual empirical circumstances and presuppositions about what particular words represent. To say that "Socrates is a philosopher", and meanwhile in order for it to be understood, one should see to it that her audience knows at least that "Socrates" is the proper name of a person, and that "philosopher" is a term of attribution to certain kinds of people. Such presuppositions can of course be too trivial in communication for a general assertion like this, so they are usually ignored by speakers. The examples Stalnaker sets up,

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[1] Of course it is only "logically possible" for a normal and rational English speaker to see "Sam is a pig" as false in the conventional senses of its components, given that "Sam" is made clear in the conversation as the name of a person. Our example is unfortunate in this sense, but it doesn't matter for theoretic purposes. For a better example for the sake of illustration, think about the assertion, "The present Hong Kong executive officer is a communist". For both the conventional and metaphorical senses of the word "communist", some people in Hong Kong will agree, and some will disagree with this sentence.

[2] For an expatiation of Stalnaker's work, see Schroeter (2012).

however, render their indispensability into an explicit and critical thing. The assertion of "He is a fool" in the first situation he mentions is pragmatically ambiguous because the scope of contextual presuppositions is not narrowed down enough. In particular, the subject of the indexical "He" is not made salient in the context by the speaker, or, even if the speaker thinks that it is salient (for example, she knows that Daniels is not a fool, and she thinks that her audience knows this as well, and thus knows that she is not talking about Daniels but O'Leary), the audience nonetheless fails to appreciate it. This failure of consensus of contextual presuppositions results into meta-semantic uncertainty.

Now we can see that, on a similar score, metaphorical expressions can also behave in such a way as to pose crucial scenarios in which the achievement of consensus of contextual presuppositions is indispensable for the speaker's proposition to be conveyed without mistake. "Sam is a pig" or "Man is a wolf" are not challenging examples since they are too transparent. It is all too familiar to English speakers that "Sam" and "Man" are the names of human agents, and it is an all too trivial common sense that to be human is not to be a pig or wolf, and therefore it is all too easy for the audience to interpret "pig" and "wolf" in a second and different sense from their conventional senses. On the other extreme, the metaphor raised in Chapter I, "We discovered water from a remote planet" can be a dark metaphor if it is stated as such to a poorly informed audience. In this case, by "water" the speakers intend to say something about XYZ, while her audience almost certainly takes it as meaning H_2O. Although the audience is cooperative, the verbal meaning is still mistaken. In order to avoid this kind of misfire of communication, the speaker has to see to it that, prior to the delivery of her speech the contextual presuppositions are well received. She should know, for instance, that it is a common sense that H_2O is unlikely to exist in that kind of remote planet, or, as mentioned earlier, she can desperately make some presupposition explicit in the content of the assertion itself, for example, by saying "We discovered non-H_2O water from a remote planet". The obvious logical contradiction of the expression "non-H_2O water" in the conventional sense of "water" will impel her audience to interpret it otherwise.

Here it is appropriate to digress a little and say something about the notion of *apt metaphors*. "Apt metaphor" is an idea that appears frequently in the literature on metaphor, and yet so far as I know there has been no serious effort to define it. Intuitively, an apt metaphor, like any other apt expression, is one that is perfectly suited, appropriate, or pertinent to a situation or an occasion. More specifically, an apt metaphor usually gives us sufficient surprise because of the presence of some kind of novelty, but at the same time, this is done not at the cost of informative pertinence—a metaphor is apt partially because it can deliver well-delineated speech contents to its audience, although this is achieved not by relying on the conventional and widely socialized meanings of the expression at issue. Given the above analysis of contextual presuppositions, one can now say that an apt metaphor can be understood as one by which the speaker exploits the contextual presuppositions in such a way that, on the one hand the explicitly asserted proposition is sufficiently false if interpreted in the conventional sense, so that the audience is cornered into seeking a novel interpretation of its meaning, and on the other hand the new proposition intended by the speaker is narrowly constrained by contextual information so that it would not yield much room for unnecessarily misleading readings. In short, the production of apt metaphors is a matter of art in which the expression creatively makes use of ready and familiar media (the said out words that already have conventional meanings) in an economic, novel and expressive way, so that a new idea is clearly presented that reaches beyond the surface meaning of its media.

Just as a critic of art is usually encountered with a dilemma when asked to enumerate some great works while having to explain their greatness in accordance with some normative criteria, apt metaphors can also come to be elusive linguistic events. On the one hand, in many situations it is almost effortless for speakers to appreciate the aptness of a metaphor, but on the other, it is usually not easy to characterize the aptness in terms of any rationale or set standard model of aptness for reference.[1] Given the above account of the nature of apt metaphors, however,

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[1] This similarity between apt metaphors and artworks leads theorists like Aristotle (2008) to believe that the creation of metaphor is a matter of genius and insight, and cannot be taught by others.

this problem may not be as mysterious as it appears, and can be explained at least to some extent. Since a metaphor always involves exploitation of contextual presuppositions, and since most of the time contextual presuppositions are *ad hoc* suppositions relativized to specific conversations, the appreciation of the aptness of a metaphor will also rely on sensitive consideration of such *ad hoc* suppositions. In this way, the appreciation of aptness is usually individual and authentic in light of the special context of the metaphorical utterance *per se*. In the case that the apt expression comes to be widely accepted by speakers, and thus comes to be a part of the "literal" vocabulary in a community, the contextual individuality and freshness may well disappear. "X is a pig" is not an apt metaphor for most English speakers nowadays, since the metaphorical use of "pig" in this way is almost a literal use of the word, but one can imagine that in the stages of its early and "fresh" use, the expression may have been quite an apt metaphor because of the originality and pertinence it carried.

So much for the topic of aptness of metaphors. Now let's come back to the main topic of the present chapter and discuss the peculiarity of the semantic property of metaphor. To throw light on the meta-semantic ambiguity of metaphorical expressions we have compared them with the exemplary situations raised by Stalnaker. Stalnaker's examples show that given different references to the contextual parameters, certain sentence tokens can be interpreted in different ways by participants with different contextual presuppositions, thus yielding different propositions that contain different semantic contents with possibly different semantic values. More specifically, in setting up this very importance of conversational contexts and presuppositions to the determination of propositional contents, Stalnaker relies heavily on a special kind of term, namely indexical terms ("He" in his examples). Indexicals are peculiar words because they behave in such a way that their references or extensions will always vary in accordance with specific contexts, and thus contribute different sub-propositional contents to the sentential propositions containing them. In this regard, they are characteristically context-sensitive words, whose verbal content (extension) in a specific utterance can only be worked out when relevant pragmatic information is considered together with

its linguistic meaning. And it is in terms of this contextual sensitivity and the resulting instability of word extension that Stalnaker renders the possible mistake of presuppositions an explicit phenomenon.

As we have shown, since metaphorical expressions also demonstrate a similar contextual sensitivity, and since the possible mistake of presuppositions also affect interpretations of the propositional content of a metaphorical token, it is tempting to think that the semantic properties of metaphor can be better understood in terms of some kind of indexicality. Is the study of the semantics of metaphor indeed a special case of indexicals? If not, what is the key difference between them, given that both of their meanings are so closely related to extra-propositional contexts? To what extent are these two kinds of expressions similar to each other in terms of pragmatic-semantic properties? In what follows, I will firstly give a short account of the semantic features of indexicals in light of the influential work of Kaplan (1989; 1978), and then introduce one of the recent attempts in the literature (Stern, 1985; 2000; Leezenberg, 2001) which treats the semantics of metaphor indeed as a special department of the study of demonstratives (e.g. "this" and "that"), which are themselves a kind of indexical words. After that, I will try to cast some critical remarks on this attempt, showing that it fails to capture some of the most important functions that are unique to metaphorical phrases but not possessed by demonstratives or descriptions used as demonstratives. This criticism will set up a basis for the constructive outline of a framework of semantics for metaphor, which will be done at the end of the chapter.

Earlier in Chapter II, we have reviewed the modal argument from Kripke (1972), which provides the basis of what is called standard possible-world semantics or modal semantics. According to Kripke, the semantic property of proper names (e.g., "Sam") and natural kind terms (e.g., "water" and "pig") is systematically different from that of definite descriptions (e.g., "the drinkable natural liquid") which are usually used to carry cognitive information for them. The central difference is a modal-semantic one, namely, while proper names and natural kind terms are rigid designators, which always refer to their subjects in every possible world, the referred

subjects of definite descriptions may vary in different possible worlds. "Obama" and "the present US president" refer to the same individual in one of the possible words, namely the actual world, but in a different possible world where Obama has lost the election, the two expressions will not be coextensive. Similarly, "water" and "the drinkable natural liquid" refer to the same natural substance, namely H_2O, in one of the possible worlds, namely the actual world, but in a different possible world, say a world where H_2O is poisonous to human bodies, the two expressions will not be coextensive. In a world where all the water is polluted seriously , for instance, although water is still referred to as "water", it is not any longer the drinkable natural liquid.

Following Carnap (1956), students of possible-world semantics divide the semantic properties ("meaning" in the broad sense) of a verbal expression into two categories, namely extension and intension (roughly corresponding to the Fregean "reference" and "sense"), and understand intension ("meaning" in the narrow sense) as a function which maps a possible world into an. In terms of this dichotomy, the semantic property of rigid designators like proper names and natural kind terms can be understood as having *constant* intensions, which map every possible worlds into the same extensions, while for non-rigid designators like definite descriptions, their intensions will map different possible world into different extensions. This functional understanding of the relation between intension and extension enable philosophers to throw light on a host of logical and epistemic issues related to word meanings. For instance, in terms of the traditional and Fregean semantics, a sentence like "Hesperus (the morning star) is Phosphorus (the evening star)" would be treated as containing a contingent proposition, since what it states is an empirical and *posterior* discovery, and according to the tradition dating back to Kant (1998), *posteriority* is the signpost of contingency. But possible-world semantics would take the proposition as a necessary one, since in accordance to Kripke's argument, "Hesperus" and "Phosphorus" actually are mapped into the same object in every possible world. Indeed, the sentence expresses a (metaphorically) necessary and (epistemologically) *a posterior* truth.

It should be noticed that so far the understanding of word meaning has been "context-neutral", since the intensions of proper names, natural kind terms, as well as general descriptions are characteristically insensitive to conversational contexts—no matter what the context is, and no matter who speaks it, , the meaning of "water" should remain the same within a semantic convention. This contextual neutrality, however, will immediately dissolve if one considers the case of indexical words. In one respect, indexical terms like "he" and "that" function like proper names, picking out the very same thing in every possible world. If Obama says 'I am the president', his word 'I' refers rigidly to the same person, namely himself, in every possible world. But of course the meaning of "I" is different from "Obama", since for another person who says "I" the word will stand for that person. What makes these context-sensitive indexical expressions special, as mentioned earlier, is that they represent different objects depending on the contexts in which they are used. In light of this specialty, Kaplan proposes to carry out a further and more fine-grained study of the notion of word meaning, and specifies two different levels for the general notion of intension. The first level, *content*, functions in a given context in the same way with what is modeled by standard possible-world semantics as intension, namely, to map a possible world into an extension. The second, *character,* reflects semantic rules governing how the *content* of an expression may vary from one context of use to the next. [1]

As such, now we can see that for an expression like "I", its character will be the same with what people take as its "linguistic meaning" recorded in an English dictionary, namely something like "the agent itself of the utterance". In a specific context, when a person utters a sentence containing "I", this character will map the speech context (including, say, a time, a place, and a speaker) into its content. According to Kaplan, what is peculiar, again, for indexical expressions like "I" and "that" is that they are *directly referential* expressions, the content of which is not a

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[1] In the words of Kaplan (1989), the character of an expression is what "determines the content in varying contexts", and "a content is a function from circumstances of evaluation to an appropriate extension."

function, but the extension itself. [1] So in the case of "I", when its character maps the contextual parameters into its content, it meanwhile maps them into the extension itself, namely the speaker. For reasons that will be clear later, at this moment it should be pointed out that, in contrast with this peculiarity of indexicals, non-indexical expressions like proper names and natural kind terms, such as "Obama" and "water", are not directly referential expressions. That is to say, their extensions will always depend on the function of their semantic content. And moreover, perhaps what is more important is that their characters are constant, picking out the very same objects in every context in which they are used, whereas indexical expressions like "I" or "this" have variable characters, picking out different things in different contexts of use. The difference between the behavior of indexicals and non-indexical expressions can be summed up by saying that for the meaning of the former, character is most prominent, while for the latter, content is most prominent—indeed, practically speaking, the character of a non-indexical expression IS its content.

Technically, it should be pointed out that Kaplan's conception of the meaning of words is based on a *two-dimensional* intension, since there are two distinct roles that "possible worlds" can play—firstly as a "context of use", and secondly as a "circumstance of evaluation". As Schroeter (2012) summarizes, a circumstance of evaluation is "a possible situation relative to which we evaluate whether the relevant object exists", and a possible context of use is "just a possible situation in which someone uses the relevant expression". To mark the difference, contexts can be thought of as *centered* or *actualized* possible worlds: possible worlds with a designated agent and time within that world, which serve to locate a particular and "actual" situation in which the expression is used; circumstance of evaluation, on the other hand, can be thought of as *counterfactual* possible worlds: possible worlds for one to check the modal relation between an expression and its extension. At this point it should also be pointed out that it is in this second type of possible world that one

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[1] Kaplan makes it clear that indexicals, including both pure indexicals (e.g., "he" and "I") and demonstrative indexicals (like "this" and that), are directly referential, that is, the "content" an indexical yields is its "denotation", not a "sense" or other "conceptual component".

can talk about whether an expression is a rigid designator or not—a rigid designator is one which refers to its extension in every *counterfactual* scenario. Both indexicals and such non-indexical expressions as proper names and natural kind terms are rigid designators, but, of course, not all rigid designators are directly referential expressions.

Having said all of this, now it is time to come back again to the main theme: the meaning of metaphorical expressions. The motivation for our introduction of Kaplan' theory of the semantics of indexicals and his fine-grained study of the semantic property of a word in general is to draw some lessons from the semantic property of indexicals on behalf of metaphors, since as we have showed the semantic behavior of metaphors is quite similar to indexicals in that they are context-sensitive expressions. But how can we bride this theory of meaning of indexicals to that of metaphor? On the face of it, a simple metaphorical expression characteristically takes the form of an assertive statement, usually also taking a general term (e.g., "pig" in "Sam is a pig") as the metaphorical vehicle. On some rare occasions, a proper name can also play the role of the metaphorical vehicle. For example, in "Obama is the second G.W. Bush", the proper name of the former US president Bush is obviously used metaphorically, being transferred to stand for some general attribute the speaker intends to ascribe to Obama. But it seems extremely difficult to think about a case in which an indexical word is used as a metaphorical vehicle. Indeed, if by a metaphorical vehicle speakers usually want to attribute a general property to something, indexical expressions are the least metaphorizable expressions, because they are expressions that lack rich semantic "content" or "conceptual components".

The study of metaphor in terms of semantic indexicality, therefore, should not be understood as a direct comparison of them with indexical expressions, but, instead should be understood as a study of some indexical disposition of non-indexical terms, usually of general terms. How can general expressions be used indexically, and therefore metaphorically? Stern and Leezenberg believe that the answer should be sought in Kaplan's further work (1978) on the controversial notion

of "Dthat", the notion of a non-standard kind of indexical expression. In Kaplan's conception, standard indexical expressions are classified into two kinds. The first are pure indexicals, like "I" and "here", in the use of which "no associated demonstration is required" since "the linguistic rules which govern their use fully determine the referent for each context". [1] The second kind are demonstratives, like "this" and "that", which are indexical expressions that require an associated demonstration, namely, by way of "typically, though not invariably, a (visual) presentation of a local object discriminated by a pointing". Thinking that people usually do not always use bodily acts to achieve a demonstration, but instead sometimes actually use verbal means, such as general descriptions and actually any kind of non-indexical expression, Kaplan introduces a special kind of indexical expression, namely "Dthat". As he explains, "Dthat" is "simply the demonstrative 'that' with the following singular term functioning as its demonstration." Where α is any singular term, 'dthat[α]' is a directly referential term whose referent is the denotation of α. So in the expression "I am talking about that man who is called by philosophers as 'Socrates'", the expression "that man who is called by philosophers as 'Socrates'" is an example of Dthat, with the description "man whose is called by philosophers as 'Socrates'" serving as the verbal demonstration.

According to this account, a Dthat expression is an operator that can be used to convert a description (or any other singular term) into a directly referential one. Clearly, what Kaplan has in mind here is the famous distinction made by Donnellan (1977) between "*attributive use*" and "*referential use*" of descriptions, since a verbal demonstration, which helps fix the referent indexically, is accomplished by changing the attributive use of a description into its referential use. According to Donnellan, if a description is used "attributively", it is used in the way discussed in Russell's classic analysis (1905), namely to set up some general condition, and if any entity fits the condition uniquely then it is denoted by the description. In the referential use,

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[1] Understandably, "linguistic rules" here refers to characters such as "the agent of speech in a context" for "I". So when a speaker uses 'I' she refers to herself, and she doesn't need to point to herself as the demonstration. When a speaker uses 'today' he refers to the day on which his utterance-token is produced, and, again, no pointing is required.

however, a description is not used firstly to set up some prior condition to be satisfied, but instead serves as a contextual means to identify an object that is presented and perceived already. To illustrate the distinction, think about one of Donnellan's examples: "Smith's murderer is insane". Suppose first that we come upon poor Smith brutally murdered, and we exclaim, "Smith's murderer is insane." In this case, the use of "Smith's murderer" is typically attributive. Despite that the speaker does not know who murdered Smith, as long as there exists a murderer then she or he is denoted by the phrase. Suppose again that Jones has been charged with Smith's murder and has been placed on trial. Imagine that there is a discussion of Jones's odd behavior at the trial. We might sum up our impression of his behavior by saying, "Smith's murderer is insane". In this case, the use of "Smith's murderer" is typically referential. Notice that in this case, the phrase will refer to Jones even if the accusation of him is wrongly launched and thus is not the real murderer. Its use is to help finish something like ostensive demonstration. And in this latter   sense, "Smith's murderer", or, to put it more demonstratively, "that murderer of Smith", is roughly what Kaplan calls "Dthat".

That a Dthat expression converts a description into a directly referential expression means that it also converts a characteristically non-rigid expression into a rigid one. If "Smith's murderer" is used attributively in the Russellian sense, then it will characteristically be a non-rigid expression, since in different possible worlds (circumstances of evaluation) it will denote different persons, but in the Dthat sense, it serves an indexical purpose, and refers to a specific person (Jones), and will always refer to him at least in the same conversation, no matter whether the circumstance of evaluation is changed or not. What is more important for the present study, it should be noticed that such a rigidly referential use can be applied not only to singular entities, but also to general properties. So imagine that one is trying to inform somebody else of her favorite color, but she does not know the precise name of the color. She can point to an exemplary object with that color, and say, "That color is my favorite", or alternatively she can rely on a description of a memory, and say, "The color of Sam's T-Shirt yesterday is my favorite". In both of the cases, the expressions serve the purpose of demonstration, and will therefore behave in the

same way as an indexical expression. Meanwhile, one can notice that in such a use, the semantic character of the components of the Dthat expression may also undergo some delicate change. "Color" is originally a rigid expression with a constant character, but now it is the component of a rigid and indexical expression (i.e. "that color") with a variable character, which can refer to different colors in different contexts of use.

It is Kaplan's discussion of this last indexical use of descriptive expressions to refer to general properties that inspires Stern and Leezenberg's works on the semantic properties of metaphorical expressions. The central idea of Stern, for instance, is to understand metaphorical vehicles explicitly as a kind of demonstrative expressions analogous to Dthat expressions. Taking the contextual sensitivity of metaphorical expressions in mind, Stern believes that the character of a metaphor, like that of a demonstrative, is unstable and typically sensitive to extra-linguistic contextual features. Thus he claims: "Indeed, just as Kaplan invents 'Dthat' to represent the demonstrative interpretation of arbitrary definite descriptions, I propose to create an analogue to represent the metaphorical interpretation of arbitrary expressions. Just as 'Dthat' converts any nonrigid description into the directly referential term 'Dthat[α]' of nonstable character, let the metaphorical operator 'Mthat' convert any (literal) expression ; into (to coin a term of art) the 'metaphorical expression' 'Mthat[α]' of nonstable character, which is sensitive to a specific 'metaphorically relevant' feature of its context" (Stern 1985). That is to say, in an expression interpreted in the metaphorical sense (e.g. "Juliet is the sun"), the metaphorical vehicle (i.e., "the sun") should be understood not only as the predicate term of the statement, but also as a verbal demonstration, which refers directly to a general property (e.g., roughly but inadequately, "bright, reliable, warm, and so on") of which the sun is a prototypical instance. This, Stern believes, can be generalized to account for the semantic properties of any metaphorical expression.

So, according to this dominant view in recent philosophical discussions on metaphor, although superficially metaphorical vehicles look like general terms with a rigid and constant character, in fact this is deceptive; the linguistic property of

metaphors should be understood in terms of indexical demonstratives. This theory solves one of the key problems in the semantics of metaphor, namely its sensitivity to conversational contexts, but to achieve this solution Stern has to pay heavy costs. Immediately, one can see that to understand metaphorical vehicles as a special kind of demonstrative expression is counter-intuitive. When one says that "Sam is a pig", "pig" in its metaphorical sense can indeed be understood as standing for a general property of which the unfortunate creature is a prototypical instance, but it is dubious that in order for "pig" to fulfill this semantic function there must be a demonstrative act. To interpret "pig" as a Mthat in the same way of Kaplan's Dthat, and meanwhile to take its demonstration as related to some property, it should be understood as equivalent to an expression such as "*that* property of which pig is the prototypical instance". Only in such a way can the property be demonstratively presented to its audience. But as long as this mediate and verbal demonstration is made explicit, it seems here one can invoke Occam's Razor.[1] Why don't we simply take "pig" as the name of the new property? Why don't we just take "pig" as the name of a new concept *ad hoc* in the conversational context, the intension of which refers to that intended property?

The treatment will seem more and more problematic if one thinks about the technical properties that Kaplan outlines for demonstratives. To understand metaphorical vehicles as a sort of Dthat is to understand it as a sort of directly referential device. In terms of Donnellan's distinction, the metaphorical phrase will be used referentially, not attributively. This, again, doesn't seem natural. As said before, speakers characteristically utter metaphorical expressions in the standard form of attributive statements (e.g., "Sam is a pig"). The most natural understanding of the intention of such statements is that speakers want to attribute some property to the subject under talk; they want, for instance, to attribute pigness to Sam when they say that "Sam is a pig". This pigness can not only be attributed by the speaker, it can also be carried further into future talks wherein the original speaker is not

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[1] Kaplan's theory of Dthat itself has been criticized by some philosophers as a violation of Occam's Razor theoretically. See, for example, Salmon (2002).

present. So a participant of the conversation about Sam may reply, "Sure, and John is also a pig". These experiences show that "pig", with its new sense, is naturally used in the standard use of a general term, namely it specifies a general condition to be satisfied by things, and a metaphorical expression, just like any normal categorical statement, states that something ("Sam") satisfies this condition (pigness). To understand "pig" as a directly referential device tends to conceal, if not deprive, this attributive function.

This concealment leads to the most conspicuous problem in Stern's theory, namely its serious inadequacy in accounting for the evolutional function of metaphor. To take the metaphorical vehicle as a special case of Dthat amounts to ascribing a variable character to the expression. As we see, "pig" in its "literal" sense is originally a rigid natural kind term, the character or its dictionary word meaning of which is constant and stable. And according to Kaplan this character is practically identical to its content, which constitutes the intension in standard possible-world semantics. To understand "pig" as a demonstrative of some abstract property in Stern's vein, however, one has to understand that it is converted into something without a stable character. In this way, "pig" remains as a rigid designator with constant character, but under the metaphorical use, it is construed merely as a component of a complicated and invisible demonstrative device, in the form of "that property of which pig is a prototypical instance", which by itself contains a definite description. This definite depiction is not a rigid designator if used attributively, but since it is used directly referentially it has a rigid designation in the metaphorical context. The key problem, however, is that during this Kaplanian conversion the linguistic meaning (character, intension, or whatever) of "pig" remains the same. "Pig" is still the name for swine, which is used here as an instance of a universal property.

This obviously goes against the phenomenon of "dead metaphor", which is a strong empirical testimony to metaphor's evolutional function. Think about the word "pig". In contemporary English, this is a *polysemantic* word, being used on the one hand as meaning the swine species, and on the other hand as meaning pig-like creatures in general. Apparently, the second and new meaning has a metaphorical

origin from the first one. In contrast to "pig", many other words have lost their first literal meanings, and are only used by modern English speakers with their second and metaphorically derived meanings. An example of such *mono-semantic* words is "jail", the historical meaning of which is "cave", a meaning that is now virtually dismissed by modern speakers. Anyway, for the purposes of our study, the important point is that this second and metaphorically derived meaning is a new, full-fledged semantic unit. In terms of possible-world semantics, one can construe it as a new intension (attribute) of a rigid designator, which, in its proper contexts of use (namely, ones similar to its original metaphorical context), maps every possible world (circumstances of evaluation) into the same extension or category, and which includes the members of the swine species, but also more. And, in terms of the Kaplanian jargon, since for rigid designators such as natural kind terms their contents (intensions) are practically equivalent to characters, one can say that "pig" in its metaphorical use acquires a new character, a new linguistic meaning, which has fortunately been accepted by more and more speakers in the English community, and which comes to be a literal sense of the word.

In short, a metaphor witnesses the change of meaning—the intension, or character, or whatever—of the metaphorical vehicle, and it marks the birth of a new ad hoc semantic unit under the same verbal token; characteristically, the change is from a rigid designator with a constant character into a new rigid designator with a new constant character. But to treat metaphorical terms as a genre of directly referential terms falls short of this semantic change. As discussed in the previous chapters of the present work, the more natural way to account for this change is to understand that in the utterance of a metaphor, there is an emergent semantic mutation, or "naming ceremony" in the technical sense, which is logically prior to the utterance per se. With this naming ceremony in hand, one can equally and adequately deal with the contextual sensitivity of metaphorical expressions, and in doing so one need not take this contextual sensitivity as a symptom of demonstrative expressions. What is more important is to realize that this naming ceremony takes into consideration the contextual factors in the conversation, and extends, shrinks, or shifts the conventional extension of the word or phrase. If the new name with the

new meaning (albeit under the same verbal token, e.g. "pig" or "water") is accepted by more and more speakers, then it initiates a causal-historical relation to its future use, and leads to a new literal meaning that is accepted into the community. [1]

Now taking this naming ceremony of the new meaning into consideration, we can see that for an expression that is susceptible to metaphorical interpretation, under the same verbal token ("pig" or "water") or sentential token ("Sam is a pig" or "We discovered water there") there are two semantic units (word intensions or sentential propositions). Both of the units are pragmatically possible, given the pragmatic ambiguity of metaphor mentioned before, and each of them should be interpreted in different "centered" possible worlds or contexts of use respectively, and in each of their contexts they are rigid designators, which map every "counter-factual" possible world into the same extensions respectively. The relation between the two semantic units is thus also a two-dimensional one. Following a general practice in two-dimensional semantics, one can display the semantic values of a metaphorical word, say "water", and those of a metaphorical statement, say "Water is H_2O", in semantic matrixes as follows.

The Extensions of "Water"

	W1	*W2*	…
W1	H2O	H2O	…
W2	XYZ	XYZ	…
…			

The Truth Values of "Water is H2O"

	W1	*W2*	…
W1	T	T	…
W2	F	F	…
…			

To make sense of the left matrix, take "W1" as standing for a world in which the speakers take "water" to have its conventional intension (C-Intension), and take "W2" as standing for a world in which the speakers take "water" to have its metaphorical intension (M-Intension). The horizontal lines represent the extensions of "water" in different possible worlds construed as counter-factual possible worlds (circumstances of evaluation), and the vertical lines represent the extensions of

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[1] For discussion of the causal-historical link of the semantic origin of general terms, see Chapter II.

"water" in different possible worlds construed as centered possible worlds (contexts of use). It shows that in each of the centered worlds, the specific intension of "water" always maps every possible world into the same extension. If the speaker stands in the world registered with the M-Intension of "water", as our briefing scientist in the starting story does, and if his audience stands in the world registered with the C-Intension of "water", as one of the poorly informed news reporters may do, then between the speaker and his audience there is misfire and miscommunication. The speaker always talks about XYZ, but unfortunately his audience always thinks that he is talking about H_2O. A similar interpretation can be worked out on the sentential level for the right matrix, and both of the matrixes can be complicated if the worlds are complicated with parameters such as more speaker's intentions, more than one kinds of drinkable liquid presented and named by some speakers, and so on. But in any case, it should be pointed out, both C-Intension and M-Intension are literal intensions in their own worlds—that is to say, *metaphorical meaning is literal meaning in any world.*

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