Do Grice and Rosch Save? An essay on linguistic slogans and what they might tell us about theories

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Paradigms gain their status because they are more successful than their competitors in solving a few problems that the group of practitioners has come to recognize as acute.
Thomas Kühn, The Structure of Scientific Revolutions

0. INTRODUCTION
In previous work (Canakis 1997) I have addressed the similarities and differences between pragmatics and a cognitive semantics through theoretical assumptions and actual data analyses. The main thesis is that pragmatics and cognitive semantics, despite appearances to the contrary, such as the common preoccupation with what is intended by the speaker and construed by the hearer, are a totally different kettle offish: the latter could not possibly be thought of as "incorporating" the former, but in a rough-and-ready way and assuming a pretty non-obvious independent pre-existence of what is traditionally understood as pragmatics. However, there is still a lot of verisimilitude to the position which could be formulaically expressed, following time-honored tradition, as COGNITIVE SEMANTICS = TC SEMANTICS + PRAGMATICS. Be it as it may, and regardless of the accuracy of the formula, there is an unusual common legacy they share: both (components of more encompassing) theories have been predicated of save in slogans by linguists. McCawley has introduced (1993 [1981]) "Grice saves" and Wierzbicka has followed (1990) with "prototypes save." Given the perceived similarity between pragmatics and cognitive linguistics,

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1 In this connection, Gazdar's (1979: 2) PRAGMATICS = MEANING-TRUTH CONDITIONS is in order by way of a reminder.

2 See Geeraerts in Verschueren et al. (1995), who maintains that: [c]ognitive linguistics is definitely a pragmatically oriented type of linguistics, both theoretically and methodologically (cf. Nuyts 1993). Methodologically, it is a pragmatic approach because it is a usage-based model (cf. Langacker 1990: 261-288). Theoretically, it is a pragmatic theory because of the importance it attaches to functional considerations in linguistic analysis: specifically it systematically relates linguistic phenomena to the categorizing function of language. Cognitive linguistics'
result of prototype categorization, I think it is useful to briefly examine what/who is saved in each case, according to these authors.

1. MCCAWLEY'S "GRICE SAVES": LINGUISTIC THEORIES SAVED
McCawley (1993: 300ff), in his section on Grice's conventional implicatures (of which the slogan figures as subtitle), provides an account of the theory referring to phenomena that have been dealt with by Grice and others as either explainable or not on the basis of the theory. I understand the subtitle as indicative of a position McCawley assumes. This position is not explicitly stated, but it can be understood in terms of "saving" classical theories of meaning from the potential embarrassment associated with their being unable to provide plausible analyses of natural language data as a result of their understanding of semantics. Alternatively, as Wierzbicka (1990: 347) puts it, "in grammar, if there is a conflict between postulated rules and the actual usage, Grice rescues the grammarian: the usage can now be accounted for in terms of Gricean maxims." McCawley goes through a number of points that Grice's theory handles well and some points that it does not.

McCawley understands as Grice's major contribution that he has shown the supposed discrepancies between natural language and standard formal logic to be not real discrepancies, but rather instances of implicature.

closest relative within the field is perhaps Talmy Givon's functional-typological theory. From a broader historical perspective, cognitive linguistics links up with many older schools and theories that concentrate on language in its natural setting and the function it fulfills. Examples of such historical affiliations are the prestructuralist form of diachronic semantics. It would be an exaggeration to claim, however, that the interaction with these historical forerunners is a lively one (Langacker 1995: 115).

On the other hand, Langacker, commenting on this similarity, claims that: [a] cognitive approach to language can also be a pragmatic approach, for cognition figures crucially in linguistic behavior, social interaction, and contextual understanding. Despite its emphasis on conceptualization (broadly understood as encompassing all mental experience), cognitive grammar explicitly denies the existence of any sharp or specific boundary between pragmatic and linguistic considerations. It is in fact a pragmatically grounded theory of language in regard to its organization, its view of semantics, and even its account of grammar (1995: 106).

One can also refer to Langacker's (1991: 497) earlier work, where he suggests that "[although cognitive semantics claims that any sharp distinction between these categories ['semantics' and 'pragmatics'] is artifactual, the standard division is not entirely lacking in motivation."

Marmaridou (2000) is an attempt at recasting pragmatics and canonical pragmatic phenomena such as deixis, implicature, presupposition and speech acts within an experiential realist, i.e., a cognitive framework.
Putting a sentence of natural language to use, one generally conveys more than the sentence actually means via the maxims of cooperation. He presents exclusive or as a case in point: to show the falsity of the claim that or is non—truth-functional (in that it implies that the speaker does not know which alternative is true). Grice suggests that "A or B' is true whenever either or both of the conjuncts is true, though asserting that true proposition will generally be a misleading thing to do if one happens to know that A is true. For doing so, goes contrary to the maxim of quantity." (Ibid: 304) What Grice does is to show that although the rule of logic is upheld, strange-sounding sentences will be conversationally misleading as in (1), below:

(1a) Either Bush is the current President of the United States or Albinoni is the composer of Chacony in G minor.
    [hence the speaker is fully aware that A is the case]

(1b) Either Eleni is coming to the party or my brother plays Badminton.
    [when the speakers is fully aware that A is the case]

Of course, sentence (1a) could easily be used by early music specialists—who know Purcell and not Albinoni to be the composer of the work—to emphatically assert that Bush is the President of the US. But this is a different matter that has to do with knowledge of either the world or a world, such as, say the world of early music. This is further corroborated by the fact that we can invent similar sentences for any particular world, such as the world of linguists: Is Chomsky a (famous/influential) generative linguist? Thus, sentences such as (1a-b) are very similar to expressions such as Does a bear shit in the woods? or Is the Pope Catholic? which Morgan (1978) calls "short-circuited implicatures". And for an implicature to be short-circuited, i.e., non-calculate, the truth value of the corresponding proposition must be immediately available to the hearer; unlike (1a) which requires knowledge of or acquaintance with a particular world, or (1b) which requires acquaintance with specific inhabitants of the world.

The same goes for if. So that examples as in (1) above or (2) below may be conversationally unacceptable without running counter to the rules of formal logic as we can see by consulting the standard truth tables below (McCawley 1993: 103)

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(2a) If Mytilene is on Lesbos, then Thessaloniki is in Macedonia.

(2b) If Mytilene is on Chios, then Thessaloniki is in Macedonia.
(2c) If Mytilene is on Chios, then Thessaloniki is on Crete.

The examples in (2) above are true according to standard logic. However, one cannot assert these and still be cooperative in terms of quantity and quality, (Ibid.:304) if one knows that the propositions are true.

Having discussed cases in which Grice saves, let us now turn to cases where he obviously does not. Concerning conditionals, Grice argues that the meaning of *if* can be paraphrased in terms of *or* and *not*, so that we do not have to account for a "connection" between protasis and apodosis as part of the meaning of *if*. McCawley argues (1993:309) that, apart from the problems that may arise in belief contexts and in larger logical structures encompassing conditionals, simple examples involving negation, such as *It is not the case that if God is dead, everything is permitted*, also present problems. He says that, whereas in classical logic the above sentence implies that God is dead (as the inference of ~□AB to both A and ~B is sanctioned), speakers of English do not accept arguments of the form *It is not the case that if God is dead, everything is permitted; therefore, God is dead.* Thus the problem of discrepancy remains. (Ibid:309-310)

It is my understanding that McCawley's discussion of Grice's theory of implicature, co-estimated with the slogan, is not a slight against Grice but a realization of the theory's being a *sine qua non* for maintaining some other views within a more encompassing linguistic theory that one has reasons to consider valuable. Importantly, what is saved is major theoretical assumptions such as the postulation of the same deep structure for the sentences in (3a-b) in a transformational grammar (cf. Ibid.: 312-314 for arguments):

(3)  
   a. Chomsky's *Syntactic Structures* was written in 1955.
   b. Someone wrote Chomsky's *Syntactic Structures* in 1955.

Besides syntax, formal semantics could be also saved, as McCawley attempts to show, although it is important to remember that for Chomsky himself semantics is hardly to be included in his theory: "I think it [i.e., his theory] also includes much of what is misleadingly called 'the semantics of natural language'" (1986: 44). "Misleadingly" is clearly explained: semantics is to do with truth and reference, says Chomsky, thus identifying the former with formal semantics; while linguistic theory is to deal with mental representations: "models," "pictures," etc. (for details, see Antonopoulou 1997: 115). Indeed, Chomsky maintains that it is likely that we need nothing other than syntax and pragmatics (or something akin to ethnoscience) in a linguistic theory (Chomsky 1995: 27, Antonopoulou 1997: 124ff).
2. WIERZBICKA'S "PROTOTYPES SAVE": NO ONE SAVED

Wierzbicka (1990), believing that there is a parallel between the position accorded to Grice's theory of implicature (cf. pragmatics) in the "grammar" and the position of prototypes in "semantics", says

For example, the actual usage of individual words is too messy, too unpredictable to be accounted for by definitions. But fortunately, semanticists don't have to worry about it any longer: they can now deploy the notion of 'prototype'. And just as the failure of grammatical rules to work can now be proclaimed as evidence of progress in linguistics (because we have discovered the all-explaining role of Gricean maxims in language), the failure of semantic formulae to work can also be proclaimed as evidence of progress in semantics. 'Semantic formulae SHOULD NOT "work"; that's one thing that prototypes have taught us.' (1990: 347)

Lakoff (1987) indeed suggests that there is no reason why concepts should abide by formulae. However, this is different from saying that formulae should not work. In my understanding, the cognitive tradition merely finds no reason why linguistic meaning should be accounted for in terms of formulae; and this means it is not bringing them into the picture, let alone considering whether they "work" or not. Wierzbicka continues with an examination of two sets of examples the former of which, according to her, constitutes abuses of the notion of prototype whereas the latter illustrates "the usefulness of this concept as a specific analytical tool and not as a universal thought-saving device." (1990: 347) In the first category she includes the analyses on the meanings of boat, bachelor, congratulate, mother, furniture, toy, and game. In the latter, she includes the meaning of color terms, words for emotions, the meaning of cup, and the meaning of bird, among others.³

Considering the above quote, it is important to note that the analogy Wierzbicka draws between Grice[an pragmatics] and prototypes is puzzling for a number of reasons. First, whereas in McCawley's discussion there is at least implicit mention to what is saved, Wierzbicka does not show that there is anything to be saved. Theories of grammar and linguistic meaning are saved by means of a pragmatics since the consensus is that pragmatics is not only necessary but compatible with them. On the contrary, in her article,

³ Cf. Lakoff (1982) on what he calls "A+B theories", where he maintains that all of western philosophy and, therefore, all of linguistic theory is constructed on the basis of dichotomies such as center (A) and periphery (B). It is interesting that similar criticism appears, at about the same time, in the social sciences.
Wierzbicka attempts to establish her point that there is no conflict between prototypes and "definitions" (i.e., semantic primitives, cf. 1990: 360). Incidentally, this point is highly controversial as should be clear from the theory of categorization in which prototypes figure prominently (cf. Rosch & Mervis (1975), Rosch (1978), Lakoff (1987), Taylor (1989)). There is a difference between the two, and this is the reason why there can be no substantial direct object in her version of McCawley's slogan. This is not only clear from the quote, where what is saved is identified with failing semantic formulae, but also from the fact that further in her discussion the point emerges as being that linguists are saved the trouble of providing definitions, which is attributed to "intellectual laziness and sloppiness" (1990: 365).

The implication here is that doing linguistic semantics is about providing definitions; that definitions are constitutive of the field of linguistic semantics. Yet, in point of fact, TCs and the definitions that go with them are extraneous to language and incidental. They are largely a historically determined way of practicing linguistic semantics, not the only way. The success of objectivist semantics does not necessarily have anything to do with the success in its handling the subject matter better than other theories; it has more to do with following traditional practice for epistemological reasons (cf. Lakoff 1987: xi-xvii, 5-11).

A second point suggesting that nothing is saved and that the analogy is incorrect is that whereas proponents of prototype theory say that formulae do not work, there is no analogous argument from proponents of Gricean pragmatics to the effect that grammatical rules do or should not work. Significantly, this is not unrelated to the status of prototypes as gauged against an inferential theory: it constitutes the basis for arguing for a pragmatic theory of inference as a component (or separate level) of a theory of linguistic meaning. In this connection, recall Wilson & Sperber's (1986: 583) claim that pragmatics is not a cognitive system, but rather "simply the domain where grammar, logic, and memory interact." They maintain that grammar and pragmatics share two characteristics: they both fall within cognitive-psychology and they have to do with language; but this is where the similarity stops. Moreover, progress in linguistic theory is not a function of the inoperativeness of grammatical rules, but of the adoption of a theory that solves parts of the puzzle of linguistic phenomena without abandoning assumptions that are deemed useful. Prototypes, on the other hand, constitute a notion that motivates a different theory of categorization, which then

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4 According to Lakoff (1982: 176) "Pragmatics is merely the semantics of language itself."
becomes the basis for a different theory of meaning altogether; a competing research program which does not accord definitions the status assumed by other theories of meaning.

Wierzbicka uses "prototypes save" convinced that prototypes are a way of by-passing real semantic inquiry which, to her, is identified with positing semantic primitives; and she goes about it way reminiscent of Osherson and Smith (1981). In a paper that was meant as a critique of prototype theory at large, they make two major assumptions (1-2) plus some secondary ones (see Lakoff 1987: 139-140ff):

1) \text{EFFECTS} = \text{STRUCTURE INTERPRETATION}
2) \text{PROTOYPE} = \text{REPRESENTATION INTERPRETATION}
3) Fuzzy set theory in its earliest version is the appropriate way of modeling die \text{EFFECTS} = \text{STRUCTURE INTERPRETATION}.
4) They assume atomism, i.e., that the meaning of the whole is a function of the meaning of its constituent parts (thus there can be no gestalt effects in semantics)
5) They assume objectivist semantics, i.e., truth-conditions.

These assumptions, like Wierzbicka's, are not accepted by all prototype theorists or all cognitive linguists; thus showing that Wierzbicka's assumptions (cf. 4 and 5 above) are wrong "is to show virtually nothing about any reasonable version of prototype theory" (Lakoff 1987: 142). Wierzbicka seems to be following a tradition of criticism that makes assumptions which are not upheld (or, worse, assumptions that are vociferously denied) by the theory in question.

That formulae \textit{should} not work could be a theoretical position; that formulae \textit{do not} work can be backed up by experimental findings. Both lines of thought constitute legitimate scientific practice. Whether either of them is a sign of progress (understood as a value judgment) is a separate question. Therefore, there is no ground for a sustained analogy between the two slogans.

3. PARADIGMS
Let us briefly consider the idea of "progress" in linguistics through a Gricean pragmatics and prototype categorization vis-à-vis the philosophy of science. To begin with, both constitute (parts of) research programs. In the case of Grice's theory, progress consists in that the theory can be encompassed by a successful mainstream research program like generative grammar\textsuperscript{5} in order

\textsuperscript{5} I take "generative grammar" as a collective term for theories that go by the name of GB, the minimalist program, a.s.o. all of which are natural derivatives of Chomsky (1957); and derivatives in the sense of progress within a paradigm.
to accord it more explanatory power. This is significant because generative grammar is *a paradigm* in the linguistic community and, indeed, very close to *normal science* in the sense of Kühn (1970: 23-42). It figures prominently in the field of linguistics, and the incorporation of an inferential theory enhances it. Thus, progress is a function of the improvement of an established theory within a scientific community.

McCawley (1985), in a paper that reinterprets Kuhn's paradigms as systems of markedness conventions, argues that the importance of Kuhn's approach to scientific revolutions, normal science and other related topics lies in focusing on the fact that science is not carried out *in vacuo* but within communities and the paths along which it develops are influenced by the way those communities work. Yet, this point has been the failing of his work; i.e., his oversimplified account of how scientific communities work. McCawley, suggests that by replacing binary oppositions such as 'normal'/"deviant" by the system of distinctions which becomes available in reinterpreting Kuhn's 'paradigm' in terms of markedness, Kuhn's ideas offer a more realistic account of the dynamics of scientific communities. He specifically suggests a reinterpretation of the Kuhnian "notion of the paradigm of a community as a specification of the respects in which behavior within that community is perceived within the community as normal (= unmarked) or special (= marked)" (Ibid: 23). There is also a caveat: to accept these markedness conventions has nothing to do with engaging in unmarked behavior while avoiding marked behavior. A concomitant of this is that marked science is expensive, "more costly than its unmarked counterparts" (Ibid: 24); it is high maintenance science. One could think of the labor that goes into justifying new ways of doing old things as the cost. Last, McCawley cautions us that normal science in its "pristine" form is opposed to not one but two and, for that matter, very different things: on the one hand, it is opposed to marked science carried out by individuals who accept the aforementioned conventions and thus pay the toll of marked science by way of extra work; on the other hand, it is opposed to *deviant science* which is carried out in defiance of the obligations to pay one's dues for practicing marked science (Ibid.: 25).

Linguistic semantics, as it stands, provides a good case for illustrating the status of paradigms. Arguably, traditional semantic theories have the form they do because their formulation depended heavily on the paradigm for dealing with meaning-in-language as established by logic in philosophy. In due course, pragmatics was incorporated into semantic

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6 On the basis of plurality of views, linguistics can be considered an instance of what Kühn calls the "pre-scientific level" (1970: 10-22); cf. Feyerabend (1993: 30-31). For a discussion of the pre-scientific characteristics of linguistics and suggestions towards its way to normal science see Yngve (1986).
theories that had themselves attained the status of paradigm in the field; notably truth-conditional semantics (indeed, formal semantics). The rarity of scientific revolutions is, then, inversely analogous to the importance of paradigms. It is more common, and far less costly, to amend than to revolutionize scientific fields (cf. Kuhn 1970, Feyerabend 1993: 30-31). Moreover, Kuhn (1970: 65) mentions that "anomaly," which is the primary factor for the emergence of scientific discoveries that give rise to revolutions, "appears only against the background provided by the paradigm. The more precise and far-reaching that paradigm is, the more sensitive an indicator it provides of anomaly and hence of an occasion for paradigm change."

On the contrary, prototypes are part of a research program, known as "cognitive linguistics", that has until recently constituted marked science (cf. McCawley 1985: 25ff) and is slowly developing into a program that may cause a scientific revolution (to be determined on the basis of its status in the field as reflected by its representation in textbooks, lectures, research projects and grants, etc/). Kuhn (1970: 52) relates scientific revolutions to anomaly and/or crisis understood, in part, as the uncovering of new or unsuspected phenomena. In the case of prototypes the phenomena are not new; their understanding and interpretation is. Incidentally, Wierzbicka's research is an interesting example of "marked science" too. It involves a risky assumption regarding the compatibility of components of theories that have already been established in the field as contrasting.

Popper (1968: 217) posits the following criterion of relative potential satisfactoriness (i.e., empirical informational content) for a scientific theory, which characterizes as preferable the theory which tells us more; that is to say, the theory which contains the greater amount of empirical information or content; which is logically stronger; which has the greater explanatory and predictive power; and which can therefore be more severely tested by comparing predicted facts with observations. In short, we prefer an interesting, daring, and highly informative theory to a trivial one.

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7 Provided linguistics will ever leave the pre-scientific level and move into the realm of mature science, a process of which there are as yet no signs.
8 He says, in contrast, that "normal science does not aim at novelties of fact or theory and, when successful, finds none." (1970: 52)
However, Popper is referring to what Kuhn calls "mature science". Vow, it should be obvious that if testability, and therefore falsifiability, were isolated and (erroneously applied to paradigms still within the bounds of the Kuhnian pre-scientific stage, then Wierzbicka's theory would emerge as the consummate theory—being the most falsifiable theory of all. Yet, even the most successful mainstream linguistic theory is not falsifiable in the relevant sense and thus it cannot make claims to either "empirical information or content." Therefore, the so-called rigor of the rules remains vacuous; because there are no empirical data against which to test it: they are by default excluded as belonging to E-language or performance (Antonopoulou 1997: 114). In this way, it is as if mainstream linguistic theory were trying to become impervious to falsification through increasing abstractionism.

Chomsky ([1991] 1993: 4) claims to be concerned with I-language (internalized language, the initial stage of the language faculty pertaining to Universal Grammar) as opposed to E-language (externalized, extensional language, which is a set of expression or corpus of data, i.e., performance). This is a position which relates to the original competence/performance as well as deep-/surface-structure distinction. McCawley (1982: 81) takes the following line of criticism with the precursors of this view (cf. Chomsky 1965):

Since for Chomsky some of the structures generated by the base rules cannot be converted into any surface structure, not all structures generated by the base rules are "deep structures." No issue of any substance is affected by any decision as to whether all the structures generated by the base rules should count as "deep structures", though one issue of no substance is affected: whether the set of all deep structures is a "context-free language."

Chomsky (1995: 7) actually concedes that "[w]e should by now be able to accept that we can do no more than seek "best theories", with no independent standard for evaluation apart from contribution to understanding, and hopeful unification [with the natural sciences] but with no advance doctrine about how or whether it can be achieved." Moreover, he claims that the brain sciences are still far from closing the gap to the problems posed by thought and language or even "to what is more or less understood about these topics." (Ibid.: 10). The horizons remain as remote as

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9 See Yngve (1986) on what science should be like and why linguistics shows no signs of eligibility for membership as yet.
ever because the solutions Chomsky seems to propose may lie outside our cognitive capacities (Ibid: 1, 27, Antonopoulou 1997: 114).

Given the peculiar status of linguistics among the sciences, Wierzbicka's approach, her false analogy notwithstanding, is essentially revolutionary; at least in the sense of daring. For in the wake of a potential scientific revolution, she attempts to reconcile the very aspects of the two research programs that motivated it.

REFERENCES