Chapter Five

SYNTAX, SEMANTICS, AND METAPHOR: BEYOND CHOMSKY

Although many laypersons assume that the Chomskyan paradigm for language reigns supreme, here it is shown that other models of syntax, specifically context-bound ones, have far greater explanatory power. Syntax and semantics are intertwined and must be understood as such in order to analyze language data including that from psychotics. This examines the ways that semantics determines syntax and the ways that syntax can be manipulated for implications and direct meaning. The nature of metaphor, how it works, and what constitutes reasonable exegeses of it are also elaborated upon. It is shown that metaphor is not random nor can metaphorical meaning be claimed without basing it on the processes by which all metaphor is created and understood.

[1] The Importance of Syntactic Theory.

Any theory of human behavior implicitly or explicitly rests upon language. Faulty notions of the ways language works have consistently resulted in fallacious interpretations of psychotic speech. So complex is language that even when clinicians have paid some heed to linguistic theory, they have embraced too readily or rejected too summarily. A prime example is Edelson's (1978) desire to develop a psychoanalytic model based upon Chomskyan grammar. Unfortunately, formulating a theory of syntax which will explain the ways that humans speak has not proven easy. So rich are language data that a variety of explanations serve to explain at least parts of the ways grammars work. Over the years, indeed the centuries, scholars have been content to stop at the data their theories account for, seeking no further.
The Chomskyan Paradigm.

Many scholars continue to equate linguistics with Chomsky. Julia's (1983) *Explanatory Models in Linguistics* argues solely against the earlier Chomskyan grammars. One facet of the Chomskyan paradigm that has been seductive to linguists as well as to psychoanalysts was the quasi-mathematical derivation of each sentence discussed, starting from an abstract deep structure which, by a succession of stages upon which certain transformations were applied, yielded a perfect surface structure, complete with undeniable meaning. Such analysis held out the promise of our being able to prove exactly what each sentence means. This would have been an ultimate triumph of mathematics over language since the latter clearly has much fuzzier rules and boundaries between levels. Of course, T-G grammarians did not recognize that borders are fuzzy and all cannot be explained by rules.

Edelson (1978, p. 162) unabashedly looked toward the day that psychoanalysis would achieve the degree of theoretical sophistication that Chomsky had provided for linguistics. Edelson spoke of psychoanalysis as being in the state that linguistics was in before Chomsky, implying a primitive state. It is not hard to see why Edelson was so ready to embrace Chomskyan analysis with its apparent precision and abstraction utilizing the symbols and equations of mathematical logic. He (p. 159), for example, showed that the generalization "All dreams are hallucinatory wish-fulfillments" could be formulated by the Chomskyan-inspired:

No matter what value of \( x \) is chosen, if \( x \) is a dream, then \( x \) is a hallucination of the fulfillment of a wish.

Edelson then points out that even this requires more explication, as:

Whatever \( x \) is chosen, there is at least one \( y \), and there is at least one \( z \), such that: if \( x \) is a dream, and if \( y \) is a wish, and if \( z \) is a condition, and if \( F \) is a relation "fulfills" which holds between a condition \( z \) and a wish \( y \), then \( x \) is a hallucination of \( F(z,y) \)-or \( G(x,Fzy) \). (Edelson, p. 160)

Aside from the fact that one gains no new insights by subjecting this sentence to such an elaborate rephrasing, there is the other fact that the statement is no more valid than when it was stated in ordinary language. As one who was originally caught up in the T-G fervor of the late sixties, however, I can attest to the seductiveness of trying to bend language into such precision. To use the very term Chomsky coined, COUNTEREXAMPLE upon counterexample has already shown that T-G
sentence-based grammars could not explain how people produced or understood even quite simple sentences. The pragmatists among us, sociolinguists, psycholinguists, neurolinguists, any of us mucking about with real data have found other models more felicitous.

It has turned out to be exceedingly difficult to find deep structures and transformational rules which unerringly explain very many surface sentences at all, much less to explain all possible ones. As counterexamples to Chomsky’s original formulations cropped up with disturbing regularity, T-G grammars have had to be revised again and again. This has been done both in and out of the Chomsky circles (e.g., Montague 1973; Berwick and Weinberg 1984; Jacobson and Pullum 1982.). New forms of grammars multiplied, each resembling classical Chomsky to a greater or lesser degree, and each supposed to take care of data the others couldn’t: generative semanticist grammars, Montague grammars, relational and arc pair grammars, grammars of the extended standard theory, and of government-binding.

Even a cursory glance at the literature debating these different schools of syntax shows how unlikely it is that any of them are to shed much light on the speech of psychosis or even of normal conversation. Their pages are filled with discussions of \( \alpha \)-raising, node pruning, constraints on deep structure movement out of NP, “shunting” c-command domains (Radford 1981; Berwick and Weinberg 1984, p. 181), all of which are operations during different stages of the derivation of a sentence, stages which are nonobservable, devoid of words, and below the level of the speaker’s awareness. That any of these post-hoc deep operations actually figure in speech production, normal or not, has never been proven. Of course, I speak here as a pragmatist, but, as we shall see, hardly a lone one.

There are far more useful constructs in linguistics today, powerful models of conversation and comprehension. The meaning-free sentence grammars of traditional, structural, and transformational grammars have been replaced by semantico-syntactic grammatical models sensitive to the requirements of the discourse. We now know that the particular grammatical form of any sentence is dependent upon the requirements of the entire discourse, and that there is no meaning without context. Moreover, we know that the very verb one chooses will constrain the forms of the sentence in which it appears. There is, in fact, no syntax separate from the discourse, no phonology separate from the word, and
no discourse the unconstrained by the social situation or the text. There are levels in language, but they are all interrelated and work in concert.

All meaning derives from context. We compare an utterance or other snatch of language to its context. That is how old words come to take on new meanings. The appropriateness of the syntax used and the words chosen depend ultimately on the context in which they appear (Lyons 1968; Seuren 1985). Lauri Carlson (1983, p. 152) maintains that we can find a context for any juxtaposition of sentences, but he does not discuss SD psychotic discourse or that from any linguistically impaired population. Truly, for some such discourse, we could provide connecting links, but these are always pure conjecture. We are justified in supplying such links only on principled grounds such as we have will see in our discussion of implication.

There is no context-free meaning. There is no context-free syntax. There is no meaningless generative cycle which produces an infinity of sentences. Actually, I should amend that last sentence. It seems to me that psychotic glossomania is the archetypal meaningless generative cycle which can be uttered as an infinite number of sentences.


The Chomskyan “revolution” had barely gotten off ground before troublesome data started to pile up. There were too many data from even quite simple sentences that could not be explained by the use of Chomskyan deep structures upon which transformations operated to produce surface structures.

Fillmore, in what he originally called CASE GRAMMARS (1966; 1968) and now calls FRAME SEMANTICS pointed out that syntactico-semantic rules are intertwined rules in all languages. For instance, the verb selected in a sentence determines which sentence slots can or must be filled. In English, a word order language, there are three basic slots: subject, indirect object, direct object. Which gets filled depends upon the verb chosen. For instance, 1A allows an indirect object position to be filled with the DATIVE but 1B does not. (An * indicates an ungrammatical sentence.)

1A. Max gave the church money.
1B. * Max donated the church money.

However, both verbs allow the indirect object to be used with a preposition at the end of the sentence.
1C. Max gave the money to the church.
1D. Max donated the money to the church.

There are even more complex examples of this phenomena:
2A. Oscar planted peas in the garden.
2B. Oscar planted the garden with peas.
2C. The garden was planted with peas (by Oscar).
2D. Peas were planted in the garden (by Oscar).

Fillmore and others (Chafe 1970) that the very positions that can be filled in a sentence depends wholly on the verb chosen, independently of semantic content. Synonyms do not necessarily allow the same grammar. For example, put can be chosen as a paraphrase of plant, but with different consequences:
2E. Oscar put peas in the garden

but not
2F *Oscar put the garden with peas.

Although 2E is paraphrasable by 2A, the selection of the verb put in 2E prevents the locative garden from appearing without a preposition. It also prevents the object, peas, from appearing with the preposition with.

Bresnan (1978) in her aptly named article “A realistic transformational grammar” recognizes that verbs have markings on them in the lexicon that indicate whether or not they take objects, datives, and the like. Similarly, Montague (1973) starts his derivations with words which are then mapped onto phrases as a corresponding semantics is simultaneously developed. Dowty (1982, p. 100) virtually takes it as a given that verbs govern whether or not transformations such as Dative Shift can occur. Seuren (1985, p. 61) flatly avows that “There is no semantics without grammar.” Halliday (1985, p. xix) insists “…there is no clear line between semantics and grammar, and a functional grammar is one that is pushed in the direction of semantics.” McNeill and Levy (1982) maintain that language is generated directly from patterns of meaning, not through grammatical representation, a view now shared by many syntacticians (Halliday 1967, 1968; Chafe 1970; Lyons 1968; 1977).

Originally, Fillmore (1982, pp. 114–115) called these noun positions relative to verb cases, but later he employed the concept of valency, also employed by Lyons (1977, pp. 488–489). Valency, a term originally used in chemistry, refers to the capacity of an entity to affect or interact with another in some special way. Thus, to use Lyons’ (1977, pp. 488–490)
examples *kill* is **bivalent**, requiring an agent and an object, and has a **causative** relationship to *die* which is **monovalent**. *Give* is **trivalent**, requiring that agent, object, and dative be specified.

**[4] Implication, Lexical Choice, and Syntax.**

Why would a mental health professional care about the differences in syntactic theories? Of what utility is a knowledge of case grammars or frame semantics, however it is called? One answer is that patients make syntactic errors explicable only in terms of such syntactico-semantic rules. The second reason is that recognition of these processes enlarges our awareness of what is grammatical and what not, surely an important issue in a scholarly field in which the thrust of much debate is whether or not the population under investigation does or does not evince deviant syntax. Another reason is that our interpretations are rendered more precise by such recognition. The last is that much implication is achieved by manipulation of syntax, and this is done according to regular syntactic rules of the language.

At times, implication is achieved by using one paraphrase or the other. There are two ways that speakers can manage such implication: by selecting one verb over another and by choosing one paraphrase of over another. We saw the latter condition with *plant* above. When *peas* were made the subject or object an implication was made that other items were planted as well; when *garden* was made subject or object, the implication was that peas were all that were planted.

A somewhat less benign example also illustrates the possibility of paraphrase. When a speaker selects one verb rather than its synonym, different implications become possible. For instance, selecting *die* rather than *kill* limits implication considerably.

3A. Jack died.
3B. Jack was killed.

The two can be synonymous in many instances, but 3B implies that someone or something caused Jack to die. 3A carries no such implication. Therefore, if a speaker wishes a hearer to be suspicious of Jack’s death, but does not want to make a bald statement to that effect, the choice of 3B serves that purpose because English speakers know that the verb *kill* takes an *agent* or a *cause* as well as an object. There is no way to avoid the object if *kill* is chosen, but by placing that object, here *Jack*, in the
subject position as in 3B, one avoids naming the agent or cause. The use
of the passive implies that there was an agent or cause. In 3A, Jack is
merely the patient, one who undergoes a process.

As noted above, there are errors in schizophrenic speech that can be
analyzed in terms of syntactico-semantic relations, some involving case
and some not. For instance, the error in 4A is caused by the inappropri­
ate preposition by which seems to indicate that cars are the cause of the
attention. Even if that is what the patient meant, and even if it is true, the
prepositional phrase because of is required to indicate cause here. With
the verb have, by usually is reserved for a temporal phrase, such as
having it by 10 o’clock:

4A. They have world wide attention by the cars . . .

In 4B, below, we see a different kind of syntactico-semantic error.
Here, the article a is used erroneously. The problem is that people has a
plural meaning and is used with plural verbs, but its form is singular.
The article a can only precede a singular noun. Some must be used with
people. There is an inevitable mismatch between form and plurality in
English, so it is not surprising that a psychotic would make an error even
in the face of fact that a phrase like “some Italian people” would be quite
common in the speech of a New York City resident. The error itself is
not likely to have come about because of reinforced stimuli. As with the
mistakes of toddlers, the speaker says what he has probably not heard.

4B. Mill Avenue is also a a I like a quiet residential n- block like a
quiet residential block with a Italian people talk.


Actually, American linguists came late to a theory of grammar in
which it was recognized that the components of language are not strictly
separated. Chomsky actually inherited that view from the structuralist
grammarians before him. Oddly, the reason that they propounded a
strict separation of levels was because they were influenced by the very
behaviorism that Chomsky despised. Structuralists assumed that we sim­
ply heard a message and that triggered a response. We have already seen
that this doesn’t even work for our processing of the sound system of
language, its simplest most automatic level. Once this last vestige of
Behaviorism dissolved, the way was open for powerful new meaning.

Eventually Fillmore came to think of lexical items as being in frames
which evoke scenes (Fillmore 1982, pp. 116–117) that are to a great extent culturally determined. He points out that a word like vegetarian is important only in a meat-eating culture and that our understanding of judge is bound by our culture’s modes of judging. He also shows (p. 123) that what appears to be a grammatical category such as verb tense shapes the image of a given verb. His example is the pluperfect progressive in

5. She had been running.

The lexical item run gives us one image, but the pluperfect progressive shapes the image of running given here, so that it may explain at the narrative time why she is panting, sweating and tired. As a result of these insights, Fillmore now speaks of frame semantics.

McCawley (1986) also demonstrates the impossibility of segregating different levels and processes of language, illustrating from other grammatical constructions. He shows other syntactic–semantic configurations. For instance, it is generally conceded that making a sentence negative is a grammatical procedure according to the grammar of a given language. Even so, negation is not completely a matter of grammar. There are certain words and expressions which arbitrarily can not be used in the negative and others that can only be used as positives. That is, it is word choice itself and not grammar per se which forces the negative or positive polarity. McCawley gives as arbitrarily positive polarity:

6A. I would rather be in Philadelphia.
6B. *I wouldn’t rather be in Philadelphia.
6C. The meatloaf is delicious.
6D. *This meatloaf isn’t delicious.
6E. You could have just as well have rented a car.
6F. *You couldn’t have just as well as rented a car.

Examples of negative polarity [examples mine]:

7A. It couldn’t be all that bad.
7B. *It could be all that bad.
7C. Max isn’t all that bright.
7D. *Max is all that bright.
7E. He didn’t do much for his family.
7F. *He did do much for his family.

Patricia Strauss (personal communication) commented that many of the starred (*) sentences can be used for emphasis, what linguists call contrastive situation. For instance, if someone demurs “Oh, things
couldn't be that bad.” The hearer, probably the complainer, retorts, “Things could be that bad” (with stress on the could). As Strauss remarked, the effect of playing with polarity works because the speaker is consciously playing with the known grammar. In turn, the hearer understands the emphasis conveyed also because he or she knows that the grammar doesn't allow this polarity on that expression.

It has occurred to me that the intertwining of lexical choice, semantics, and syntax explains the reason that paraphrases can differ so radically in their surface forms.


Some meaning is derived from factoring of features as in cub, puppy, child, calf which share the semantic features of [young] [offspring], but differ in the features of [human], [wild], [ursine], and [canine], so that child is [+human, -wild], cub is [-human, +wild, +ursine, +canine], and puppy is [-human, -wild, +canine]. The very fact of being human automatically negates being ursine or canine, so those features need not be mentioned in a discussion of semantic features. However, being [-human] opens far more possibilities, so that features like [+canine] or [+ursine] have to be specified.

Certain features subsume others. Baby, for instance, is [+human], so that one need not specify species if that word is used for humans. If, however, it is referring to other mammalian offspring, that must be specified, as in “animal babies” or “baby Chow [a breed of dog].” Often, when attempting to be colorful or witty, people indulge in these kinds of violations of feature attachment onto words. Sometimes these can be heard as insulting to humans, as when referring to someone as a “baby whale.” The conditions fostering such a meaning as opposed to one of “offspring of a whale” are rooted in the communicative situation (Chapter 7).

Weinreich (1966) tabbed another way that semantic features can be used. He noted that in expressions like pretty boy, the feature of [+female] that inheres in pretty becomes transferred to boy, thus giving an implication to that word, implying that whoever he is, he is effeminate. Dylan Thomas' line, a grief ago similarly transfers the feature of [+time] onto grief, thus implying that, at least to Thomas, life is such woe that its times can be measured in grief. Expressions like salty humor or the bouquet of the wine are other instances of transfer features. Using words together
that have semantic features that don't quite jibe is a regular way of achieving implication.

A good deal of meaning does reside in inherent semantic features of lexical items, although any item can be used in novel ways. Still, there are errors in lexical choice attributable to semantic features, such as

8. Doctor, I have pains in my chest and hope and wonder if my box is broken and heart is beaten.7 (Maher, 1968 cited in Forrest 1986).

In the absence of strong contextualizing, box does not usually subsume the features of a human's chest. Moreover, hearts may be beating, but they are not usually beaten. The connection between chest and box is easily seen if one considers semantic features. Boxes fall into the category of chests in some usages. Both are concrete nouns which share the meaning of [+container, +rectangle, −animate]. However, the other meaning of chest, that of human anatomy, is neither rectangular nor inanimate. This error is like those of glossomania discussed in Chapter 1 and 2. First one meaning is taken, one appropriate to the context. Then a synonym of that word is evoked, the one inappropriate to the context, the [−animate] meaning. One result of linkages of words based upon shared lexical features is glossomonic chaining (Chapter 1, 9).


Over the years, in many models of grammar including the earliest Chomsky formulations, it has been assumed that our internal vocabularies, what is now usually called our mental lexicon consisted of a listing of words out of which our syntactic operations plucked, so to speak, the correct word for our intended meaning, and put it in its correct slot in the phrase or sentence we were formulating. Early on, Chomsky noted that there were syntactic constraints on some words which he termed selectional restrictions. For instance, assassination is restricted to a human subject and a politically important human object, unless, of course, we are talking of a cartoon world in which, perhaps, a penguin could assassinate a polar bear. Even so, T–G grammars, like their structuralist predecessor, considered lexical selection somewhat apart from the purely syntactic generation of a sentence.

George Miller (1978, p. 61) emphasizes that items in our mental lexicons have so many kinds of information attached to them that they cannot be autonomous, that even the concept of selectional restrictions is
too modest to portray their role in speech and thought. Each item carries with it syntactic information such as its part of speech, inflections it may or must carry, morphological information such as possible suffixes or prefixes, variety of pronunciations possible (e.g., the variation in the ending "-ing" as opposed to "-in" as in *singing, singin*'), ways it can be written or printed, what its synonyms are, common phrases it may be embedded in, conceptual relations to other words or spheres of thought, specific cultural information, general information about what it refers to, mental pictures evoked by the word, and even etymologies. He likens our verbal storehouses to encyclopedias and affirms that the lexicon is also tied up to "...thoughts, memories, percepts, desires, feelings, intentions." Kearns (1984, pp. 85–108) also speaks of experience as being part of the language system.

Miller reminds us that "cognitive economy depends on the intelligible organization of what is learned," so that it is not likely that our mental lexicons are mere lists of words. In essence, we saw the complexity of the relations of words when we considered glossomania, showing that it can be explained by involuntary out-of-control triggering of lexical items, and all the forms that triggering can take are explicable by the complicated networks of words and phrases in our mental lexicons. Glossomanic chaining seems to be a trip through the mental lexicon, leaping from synonyms to rhymes to phrases to subject matter related to a word to emotional reactions. What it also indicates is that there is no sharp, dividing line between syntax and semantics, or, for that matter, the other components of a language. Yes, we can define separate levels of phonology, morphology, sentential syntax, and discourse, but, no, there is no sharp demarcation among categories. Language by its very nature has fuzzy borders.


Interpretations of psychotic speech rest heavily on metaphor, at least on the assumption, and it is a reasonable one, that such speech is metaphorical. In this discussion, the word *metaphor* is used in its broadest sense to indicate all figurative uses of language, the tropes, including metonymy, synonymy, irony, simile, and synecdoche.

Over the past several years more and more linguists have been acknowledging the metaphorical nature of meaning, claiming that much of what we say even in ordinary speech, is metaphorical and all our abstractions
are rooted in and extended from words with originally concrete meanings, with \textit{rooted} here being a prime example of the process itself. The great analysts have said all along that all language is metaphorical, but this does not mean that analysts and linguists perceive metaphor the same way.

Psychoanalytical exegeses of metaphor do not necessarily concur with the kinds of interpretations offered by linguists and others currently involved in unraveling the mysteries of metaphor. Of course, scholarship being what it is, variation runs rampant even in a given field. The exact nature of metaphor, its relationship to concrete language, its basis in perceptual and cognitive structures, and the ways in which it is construed have been hot topics in linguistics, cognitive science, and philosophy for the past several years (e.g., Levin 1977; Rosch 1973, 1975, 1981; Ortony 1979; Mac Cormac 1985; Lakoff 1987).

As indicated above, there are many theoretical questions about metaphor and its nature, most of which are beyond the bounds of this book. Although we cannot claim a consensus in all matters, there are already significant insights into the relations between metaphors, the world, and meaning. By examining fields of everyday metaphor, we get good insights into the ways that metaphors are built and what should be the possible bounds on our interpretations of them. Except for pathological language, even highly metaphorical language is interpretable in terms of the words and grammar their creator used. Metaphors and other figures of speech operate according to certain principles.

Although figurative language has traditionally been considered to be apart from literal meaning, and still is by many scholars (Levin 1977, p. 31), it can be seen as well as part of ordinary, everyday meaning. Ortony (1979) points out that metaphor, if taken literally, is false, but that there are regular processes by which metaphors are given and received.

The specialized metaphors in the verbal arts are, by definition, more difficult to understand. It is acknowledged that they are created to cause readers and listeners to stop and ponder, to see new and unusual connections, but they are but one end of a cline of figurative meanings. Furthermore, no matter how difficult such metaphors may be to decipher, still the author had in mind some meaning and he gives clues as to what these are. It is not the case that any author creates a work of art such that the language in it can mean anything a reader thinks it does. For instance, consider Emily Dickinson's metaphor about "Cambridge ladies." She said they had \textit{furnished souls}. The almost oxymoronic juxtaposition
between *furnished* and *souls* shows us what smug, closed-minded, insensitive women these were. They were as immutable as furnished rooms. Whether or not the reader instantly gets the same meaning as I did, he or she is capable of concurring or dissenting on the basis of the words in question. This is in direct contradiction to Forrest’s interpretation of the passage in example 9 below. He has followed a long-standing practice in psychiatry of giving a global and highly individual interpretation of the entire passage rather than one based upon individual words within it.

Adrienne Lehrer (1983) shows that metaphor is achieved in expressions like *velvety wine* by ignoring the inherent features of *velvet* as a fabric, transferring its meaning of “soft.” Literally, wine like velvet would be disgusting.

A major problem in schizophrenic speech has been whether or not its characteristic bizarre or opaque utterances are instances of wildly metaphoric language, and, if so, how may they be interpreted. This entire question impinges on discourse analysis (Chapters 7 to 11) and will be explored further then. The question we ask today is, “How do metaphors relate to what it is that they mean?” For instance, looking at the passage also discussed in sec. 6, Brendan Maher and David Forrest have come up with dramatically different interpretations of 8 above, here repeated:

9. Doctor, I have pains in my chest and hope and wonder if my box is broken and heart is beaten for my soul and salvation and heaven, Amen. (Maher, 1968 cited in Forrest 1986).

Maher, I believe correctly, interprets this as the patient’s complaint about physical chest pains. Forrest, on the other hand, says that this is metaphorical. “The listener is told if he has ears for it what it is like to be schizophrenic..., but as no one who is not schizophrenic can fully empathize with this experience, the message is redirected to God’s ear.” Is this passage metaphorical or is it intended as a literal message, one that has gone wrong because of a speech dysfunction?

We can compare this with passages presented by Hallowell and Smith (1983) in which a patient describes himself as imprisoned, then speaks of ebbing sand below him, and of plummeting downward towards corrosive and sharp knife-like objects, such as acid, spikes, cobra spears, “tiger-hunting forks,” and numerous blades. The vivid imagery of ground that is not firm and items which give horrendous pain seem to me to be a description of what it is like to be schizophrenic. Those of us who have
never had the experience of being schizophrenic certainly can feel the horror that this patient is going through.

Forrest argues within a long established tradition. Levin (1977), for instance, believes metaphor is rooted in deviance and is caused by a desire to be vivid, striking, or colorful (p. 31). He also says that metaphors are used to fill lexical gaps, giving as examples foot (of a mountain) and neck (of a bottle). One cannot deny the former assertion. Clearly, one reason for metaphorizing is to say something in a new way so that it will command attention or become more memorable, and just as clearly, sometimes, metaphors are used to fill lexical gaps. However, it is never the case that a metaphor must be employed to fill lexical gaps. For instance, a foot of a mountain can also be called its base or its bottom, or some totally new word, like “ponge” could have been made up to indicate the lowest points on a mountain. It is never the case that a lexical gap has to be filled by a metaphorical meaning of an existing word. It is the case, nevertheless, even across languages, that metaphors are often used, that certain types of metaphors are made and that metaphors show certain directions of semantic flow. To use Levin’s example again, French piedmont is a metaphorical extension of foot. Metaphors based upon the human body are legion: the leg of the table, the arm of the law, the head on the beer.

Levin (p. 31) gives as an example of deviant usage, one which calls for special construal the term “devouring books,” in which a term for eating transfers to reading. Actually, there is an entire set of metaphors correlating cognitive and gustatory ingestion and excretion: juicy story, food for thought, consuming knowledge, gulping down facts, digesting information, indigestible news, regurgitating facts, spilled the beans and spewing words. Like food, knowledge is assumed to enter the body, adding to whatever is already there, and, eventually, to exit the body as well, in English by metaphors evocative of vomiting. The very fact that we can find so many metaphors analogous to Levin’s indicates that we are dealing with normal aspects of language, not deviant usages.

This is confirmed by several studies. Lakoff and Johnson (1980) and Lakoff (1987) have dissected everyday metaphors, showing that metaphor making is not simply a matter of creativity. They show that metaphors refer to cognition, that there is “a coherent conceptual organization underlying” metaphorical expression (Lakoff 1987, p. 381-405). Metaphors for anger, for instance, relate to the actual physiological changes wrought by anger: increased body temperature including a rise in the
heat of blood, increased blood pressure, redness in the face, interference with accurate perception, the body as a container for emotions, and agitation. To give a very few examples of these, consider

- get hot under the collar
- a heated argument
- letting off steam
- blind with rage
- burst a blood vessel
- face red with anger
- blood was boiling
- shaking with anger
- reach the boiling point
- let him stew

There are even metaphors for extreme anger which refer to exploding, a combination of heat, agitation, and pressure rising to the point of explosion, as in

- she flipped her lid
- blew his stack
- hit the ceiling
- went through the roof

Lakoff (p. 386) observes that certain otherwise inexplicable idioms for anger actually are caused by these physiologically-based metaphors. For instance, expressions like “she had kittens when I told her” are based upon the model of “something that was inside causing pressure bursts out.” This is related to metaphors like “he vented his anger.”

Miller (1982, p. 68) shows how deixis, actually pointing to something, which is usually considered to be straightforward and literal, can also be metaphorical. For instance, in a restaurant, a waiter can point to a ham sandwich and say “the man in red” to mean “he ordered it” or “bring it to him.” Similar usages occur with “the hot fudge sundae practically licked the plate clean” meaning “the person who ordered the hot fudge sundae . . .” There is an added metaphor here, that of a dog or other animal who likes its food. Metaphor suffuses every aspect of language and any utterance can contain several. Outside of Dick and Jane, it is hard to find speech which is not suffused with metaphor.

Sternberg, Torangeau, and Nigro (1979) themselves using a metaphor of a rubber band, point out that one can stretch a meaning of a word only
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up to a point, and then it snaps (pp. 334–335). The very metaphor they use to delineate the limits of metaphor seems to be one of those physiologically based metaphors which Lakoff and Johnson so aptly showed to be at the foundation of human metaphorizing. Meaning is elastic, we stretch the truth, we bend the meaning to our purpose, meaning is flexible. All of these are based upon the tactile and visual experience of bending and stretching materials to fit a purpose. It also occurs to me that we bend and stretch our bodies for purposes, such as stretching to reach something or bending to fit under something. Their metaphor aside, Sternberg et al. make an important point, which is that there are limits on metaphorical meaning. One cannot take a word and use it to mean anything else. The hearer has to be able to expand the meaning of the word(s) used and it is part of our normal linguistic baggage both as speakers and understanders that we recognize when the extension has snapped. One has to question seriously interpretations so strained (another metaphor of the stretch set) that normal decodings, even normal informed decodings cannot be traced to the words used according to any of the known strategies for producing or comprehending metaphors. By insisting upon such a restriction on interpretation, I am not saying that unusual metaphors are not interpretable. The essence of wit, of comedy, of drama, of the verbal arts in all their forms all depend upon novel metaphorizing, and, as we all know, sometimes we have to have metaphors explained to us. That is one function of the Talmudic scholar, the preacher of the Gospels, and the English professor. What I am saying is that those explanations must be based upon the kinds of extensions of meaning discussed here. They are word based. They are context based. One cannot claim a meaning for an entire discourse without referring it to its parts, and relating them to regular processes of meaning.

Rumelhart (1979) claims that the same comprehension strategies are used in interpreting figurative language as literal. He (p. 83) cites a study in which a student of his found that it took no longer to assign a figurative meaning to a sentence in context than it did to assign a nonfigurative one. What did take longer was assigning a meaning to a sentence out of context. This is not surprising since we get meaning in context.

Clark and Lucy (1975) had somewhat different results in an ingenious study. They provided subjects with pictures and asked them to determine if the picture matched an indirect request that they were given. In this study, indirect requests took longer to process if their underlying
meaning was negative, so that “Must you open the door?” took slightly longer to match to an appropriate picture than did “Can you open the door?” Notice that “must you” is affirmative in syntactic form, but negative in actual meaning. Since other testing has shown that negative sentences can take longer to process than equivalent affirmative ones, Clark and Lucy interpreted their results to mean that people first compute a literal meaning and then match it to the context to derive the metaphorical one, a stage which Rumelhart denies. These are empirical issues, resolvable in the laboratory. Many philosophers such as Grice also assume that a literal reading is made first and then the figurative sense is construed. It must be emphasized, however, that even in the Clark and Lucy study, we are not talking about large time differences. They speak of time differentials like 0.3 seconds and many of their examples are confounded by another problem: in some of their examples they have mixed registers of formality. For instance, they paired “Can you open the door?” with “Must you open the door?” but the latter is more formal than the former. The equivalent would be “Do you have to open the door?” The specific outcome of questions like this is not an issue. What is the issue is that metaphorical language is processed the same way as literal language, using the same context-matching strategies, and, in ordinary circumstances, if there is a time differential between decoding literal and figurative speech, it is very tiny.

Since we can find pan-human metaphorizing, we can find it in the simplest of speech amongst all peoples, we cannot in justice assume that metaphorizing per se is deviance. Creating metaphors is normal. So is understanding them. We have to expect that schizophrenics can suffer disruption in this language activity as they do in others.

Fraser (1979, pp. 181–184) confirms again that context is as powerful a shaper of what metaphorical meaning as it is in literal meaning. I would go one step further and point out that metaphor is possible because of the context-dependency of language. That is, all linguistic constructions ultimately mean what the context allows them to mean. For this reason, we can use phrases that are patently untrue, but still manage to convey a real meaning. Fraser gave subjects 30 zero-context short metaphorical sentences. He avoided culturally common ones like “he’s a dog” except as an example. The metaphors he crafted consisted of such things as “He/she is a peanut butter and jelly sandwich/octopus/compass, and ripe banana.” Although there wasn’t necessarily one “most probable” interpretation, what he did find was that certain words definitely gave nega-
tive or positive connotations and that the same words used with *she* were interpreted quite differently from their use with *he*. This conforms to more literal uses of language as well, as in “He/she is a tramp, or professional or “He/she is loose.”

A distinction is commonly made between dead and “live” metaphors, with expressions like *the heart of the matter* being recognized as having their origin in metaphor, but which are now so common that they are virtually literal. I think that this is a false dichotomy. Virtually any nonconcrete word can be seen to have as its origin a concrete one. It must be that human language started out with words only for the palpable, the visible, the smellable, and, by extension, these became more and more abstract. It is impossible to conceive of a word so concrete that it couldn’t be used metaphorically. Somebody might even find a new way to use *heart* in yet another metaphorical sense. Perhaps we should view metaphors as ranging from those which everybody would accept in a given meaning to those which only a few would agree upon. Fraser’s examples are proof of this. In American culture, what could be more concrete and specific than a peanut butter and jelly sandwich? Yet, before Fraser, I never heard of its being used to refer to a person. I daresay most of Fraser’s subjects hadn’t either, but they did give metaphorical interpretations of it, all different, to be sure, yet understandable to a member of this culture.

The issue of metaphor can even be construed politically. Szasz’ (1976) vehement insistence that schizophrenics are political prisoners is based upon his faulty conception of metaphor. Like the psychiatrists he so roundly condemns, he sees metaphor holistically, as chunks of language to be analyzed as a whole, not in terms of the parts that comprise it, nor does he bow to any psycholinguistic understanding of how people actually use language. His interpretation of schizophrenia is that sufferers are imprisoned in hospitals because they persist in talking in “metaphors unacceptable to [their] audience, in particular to [their] psychiatrist” (p. 14). That is, if you say things psychiatrists don’t like, don’t believe, or don’t understand, you better watch out or they’ll imprison you in a mental hospital.

Everyday metaphorizing requires no special talent, and examination of the epics of primitive peoples reveal that it is not a product of special cultural achievement. Artists, of course, may have special talents in creating novel metaphors, but the ability itself is a general human one. Technologically-primitive peoples have again and again been shown to
have the very same language capabilities that technologically advanced ones do. So-called primitives create poetry as brilliant and using the same devices as those of us who are supposedly of an advanced culture. Meaning is derived by regular strategies. It has to be or else language would be ultimately meaningless. Anything that anyone said could mean what anyone else says it does and that is patently untrue. One can’t even imagine such a system evolving, and human language certainly has taken a special evolution. Even in the most figurative of language, there is meaning which can be rationally derived. When language is so deviant that none of our normal strategies for comprehending what is said, we have to say that the fault lies in the speech itself. The speaker has a dysfunction in verbal expression at that time.

[9] Implications for Theory.

The multileveled structure of language correlates with the almost bewildering variety of deviations in schizophrenic speech seen in the previous chapter. This will be confirmed when we consider psychotic deviations on the level of discourse. If these levels of language have any psychological reality, we should expect that deviance occurs in each, deviance which can be explained only by reference to each level.

Disruption proceeds from the top (discourse level) down, with the lower levels of language becoming disrupted as the patient deteriorates. This is probably the reason that there is no evidence at this time that phonological processes *per se* are disrupted as their realization is the most automated, whereas the higher the level of language, the more choices there are, the more judgments must be made. Hence, gibberish and neologizing which apparently arise from difficulties in word retrieval seem to represent the most severe level of SD schizophrenia and the fewest, albeit them most ill, patients have this difficulty.

Specifically, using the terminology of behavioral psychology—but not to its purposes—in language, two or more stimuli can—and certainly do—evoke the same response, and the same stimulus can—and certainly does—give two or more responses. Both processes seem universal, that is, appear in all languages. These are not rare phenonema, but pervasive in all languages. For instance, by their very nature, different allophones are heard as one phoneme, so that all phonemes in a language are instances of two or more stimuli evoking the same responses, and all cases of neutralization involve the same stimulus being responded to as if
they were different. Moreover, the same disjunction between stimulus and response is observable on the levels of morphemes, words, and higher structures like phrases and sentences. All cases of ambiguity, for instance, are cases of the same stimuli being responded to as if they are different. In fact, since all words typically have several meanings, understanding them is clearly never a case of simple response to a stimulus. There is no isomorphism between the given signals and the received messages in any language.

At all levels of language, the processes used both to encode and decode are not amenable to casual introspection, nor are they amenable to deliberate manipulation. Consequently, it is highly unlikely that psychotic gibberish, neologizing, word salads, and incoherent discourses are deliberate.

Notes

1 Julia does not even mention the newer Chomskyan constructs such as Government-Binding theory. Nor does he mention Montague grammars, or case and discourse grammars. He dismisses generative semantics and functional grammars in footnotes only, and he completely ignores pragmatics, systemic grammars, and the entire body of work in text linguistics.

2 Testing to see how long it takes subjects to process sentences with various kinds of syntactic structures has been used to “prove” that one or another derivation is real. The supposition is that if subjects take longer to process a sentence with one kind of syntactic structure than another, the former has more complex derivation than the latter.

3 In my now hopelessly outmoded dissertation (Chaika 1972), I showed that a grammar based upon such interrelationships can be used to explain deviant sentence production, whereas transformational grammar could not.

4 This refers to putting the indirect object at the end of a sentence with the preposition to, as in “Mary gave Kevin candy” and “Mary gave candy to Kevin.”

5 Fillmore also shows that miscommunication can occur because of frame conflict, as when laypersons understand one meaning of innocent but lawyers understand it differently.

6 These examples are not McCawley’s. Neither he nor I have even attempted a complete listing. Readers should be able to supply more examples on their own.

7 It has struck me that the patient might really have said beating using the pronunciation “beatin’.”

8 In Emily Dickinson’s day, people didn’t usually change their furniture every few years as they do today. What was bought was bought for life. There is the added meaning here of furnished rooms for rent, which certainly indicated that the furniture was about as forever as the landlord could get away with.
By deviance, he does not mean "pathological," but deviant in that the word is not being used in its original sense which here he assumes is physical eating of actual food.

As one examines language change over centuries, be it in lexicon, syntax, even some aspects of phonology, one cannot help but be struck by the degree to which items already in the language are extended and eventually even changed to effect new meanings brought about by technological or other changes in a culture. Although it is possible to make up entirely new words, it is more usual to extend the meanings of old ones.

It has always struck me that heads on beer are based upon human heads rather than those of other mammals because human heads are on top, but most other mammals have heads in front of their bodies, but legs of a table or chair are more easily construed on the picture of a four-legged animal.

This is changing for younger speakers who are used to finding women in the professions of law, medicine, and college professorships. When I was an adolescent, however, "she's a professional" was a metaphor for "she's a prostitute." This usage still survives in the expression, "The world's oldest profession."