Towards a Dialogic Syntax

*DRAFT*
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John W. Du Bois
UC Santa Barbara
dubois@linguistics.ucsb.edu

This paper outlines in preliminary form some of the fundamental linguistic concepts that are needed to explore the potential of a dialogic syntax. At this early stage the emphasis is on presenting illustrative analyses of key linguistic phenomena which characterize dialogic syntax, so as to exemplify and develop in informal terms the ideas and methodologies that show the greatest promise for pursuing the potential insights of the theory. Dialogic syntax can be defined as the structure of engagement between and through signs. This engagement entails a structural coupling which establishes an array of links between two or more comparable linguistic units (or stretches of discourse), by means of, and in reference to, language or another symbolic system. The present utterance is coupled to a prior one, whether near or distant, spoken or written, produced by a face-to-face interlocutor or a predecessor from the remote past. The evoked utterance may be audible or silent, accessible from the immediate prior discourse or conjured up from memory or from the imagined potentials of language. The dialogic relations so constructed may extend to anticipated or projected utterances, whether predictable or novel in form. The open-ended character of language guarantees that the potential for engagement will be limitless, or at least, that it cannot by delimited in advance.

Two key aspects of dialogic syntax to be addressed here are parallelism and resonance. Parallelism (Harris, 1952 #996; Jakobson, 1966 #433) articulates a relation of structural similarity between two or more stretches of discourse; for example, between pairs of utterances. Each of the utterances so related may in itself appear as a complete linguistic unit, e.g. an ordinary sentence which in its conventional internal attributes seems self-sufficient and independent of any other sentence. Viewed in isolation, each individual sentence included in a given dialogic mapping may not betray any tell-tale features distinguishing it from sentence types that would be considered autonomous in any traditional theory of syntax. But dialogic syntax looks beyond the individual sentence to identify relations between pairs of sentences. It identifies factors capable of treating multiple utterances as comparable, aligning them, and forging links both structural and functional between their corresponding elements. Going a step further, it seeks to draw out the implications of this mapping for the interpretation of the units so linked, and thus attends to the consequences for structure, meaning, and use. A second key concept in dialogic syntax is resonance, understood as the activation of affinities across utterances (Du Bois, 2007 #1372). Resonance is the basic currency of the dialogic connection between pairs of utterances. Resonance is both source and product of the structuring of engagement between dialogically juxtaposed utterances. The canonical instantiation of dialogic syntax is realized in a sequence of coordinated utterances produced by co-participants in a dialogic exchange across successive turns. But dialogic syntax is not limited to conversational exchanges, and can arise as well within the successive clauses produced by a single speaker. Beyond the two central concepts of parallelism and resonance, dialogic syntax can be fruitfully related to a
range of related concepts and theories, including those pertaining to syntactic priming, intertextuality, analogy, association, allusion, similarity, and more.

A key justification for the present paper—with its focus on developing a general framework for the analysis, description, interpretation, and representation of the structural and functional relations that arise between utterances when they are brought into dialogic juxtaposition—is the need for conceptual clarification, recognized as a necessary stage in the development of science {Mayr, 1982 #2548; Itkonen, 2003 #1122}. Conceptual clarification is especially crucial whenever it becomes necessary to free oneself from certain self-imposed limitations or assumptions, such as those taken for granted by traditional syntax as practiced in the last half of the twentieth century. Without question, generative syntax had a blind spot—by design—when it came to looking at how speakers use grammar. Among linguists who saw this as a problem, several argued for the need to remedy the lack, and offered specific proposals on how to do so. In one formulation of the agenda, the goal of grammatical theory is to explain why grammars are as they are; and the way to achieve this explanation is to describe how speakers make functional use of the grammar of their language, mobilizing linguistic elements and structures in the service of communicative, cognitive, and collaborative needs. Going a step further, explanations for the systematic organization of linguistic function are ultimately to be sought via an understanding of the processes of grammaticization, which amounts to a theory of how the structure of grammar emerges. This line of argumentation has been especially prominent in discourse-functional approaches to grammar {Ariel, 2008 #2272; Chafe, 1994 #138; Clancy, 1997 #140; Clancy, 2003 #257; Du Bois, 2003 #25; Du Bois, 2003 #255; Givón, 1979 #147; Givón, 2009 #2505; Hopper, 1987 #451; Thompson, 2001 #223; Thompson, 2002 #596; Thompson, 2001 #223; Tomasello, 1999 #445; Tomasello, 2003 #1135}. In related developments, the broader field of linguistics has come to recognize more and more the need to get beyond the unnecessarily limiting assumptions about the nature of grammar (and grammatical phenomena) that were built into the foundations of traditional formulations of generative grammar. Alternatives are now springing up all over, as linguists work feverishly to replace the questionable assumptions and faltering theories of traditional generative approaches to syntax {Bod, 1998 #796; Bresnan, 2007 #1319; Bresnan, 2008 #2209; Goldberg, 1995 #93; Goldberg, 2006 #1603}. The present work is sympathetic to such efforts toward reforming the fundamental conception of grammar, and is in principle compatible with many of the ideas now being brought to the table, such as constructions, exemplar-based grammars, data-oriented parsing, syntactic priming, structure function, and so on. But these moves of themselves are not sufficient; much more needs to be done. Dialogic syntax identifies a new set of linguistic phenomena with previously unrecognized implications for grammar, and proposes methods and concepts for exploring the new territory. Dialogic syntax focuses from the outset on the structural relations that arise between utterances, rather than within them. Even so, as the research develops, its findings may prove relevant to sentence syntax as well. As one version of the Functional Frequency Principle states, “Grammars code best what speakers do most” {Du Bois, 1985 #71; 2003 #25}. If speakers “do” dialogic syntax often enough, it may turn out that emergent grammar responds adaptively to it, self-organizing along lines that efficiently support the structure of engagement. Though beyond the scope of this paper, this speculation gives some sense of what is at stake if the full implications of dialogic syntax are to be absorbed regarding the self-organization of language as a complex adaptive system. For the present it must remain an open question whether the role of dialogic syntax in identifying a new set of structural and functional relations will require significant changes in our thinking about the fundamental organization of grammar in human language. At this stage, what we can aver is that the evidence to be presented below suggests that speakers know some useful things about
how to use grammar to create the structure of dialogic engagement. If these things have
remained largely overlooked and untheorized in past and even contemporary theories of
grammar, the time is overdue to address them.

In the discussion that follows, I begin by sketching the idea of dialogic syntax in
broad outline, with a few brief examples to show what this linguistic phenomenon looks like.
The next section takes up in a more systematic way the main concepts that are needed for the
theory of dialogic syntax, focusing on resonance, diatax, the diagraph, and related ideas. I
then take up the burning question of whether dialogic syntax should be considered syntax at
all—and consider what might be gained if the answer turns out to be yes. Part of this hinges
on how we wish to think of the relation between dialogic syntax and traditional (“linear”)
syntax of the familiar sort, and whether it is possible to articulate a useful division of labor
between the two. The next section considers some possible objections to dialogic syntax,
addressing the twin questions of how we can know whether an observable parallelism in
linguistic pattern represents a real dialogic resonance—real for the participants, that is—and
how we can sort out possible alternative explanations (e.g. constancy of subject matter) for
the recurrence of elements in discourse. The next section presents some very preliminary
attempts to develop a notation for representing resonance at abstract structural levels, using an
augmented version of the diagraph. The penultimate section briefly reviews various other
theories that relate to the concerns of dialogic syntax, including parallelism, repetition,
priming, and others. In conclusion, I summarize some of the key structural and functional
issues that are at stake if we are to expand our understanding of grammar to encompass a
dialogic dimension for syntax, and outline some possible directions for future research.

What is dialogic syntax?

It takes language to make language. On this view, language is the product of a
confrontation of particulars {Becker, 1995 #1855}. The confrontation is canonically dialogic,
embodied in the speaker's active engagement with the words of those who have spoken before
{Bakhtin, 1981 [1934] #783; Voloshinov, 1929/1973 #454}. As one utterance is brought into
relation to another, a resonance arises between the two which defines a matrix of relational
affinities. The relations established by dialogic syntax are capable of generating an increment
of inferred significance, with immediate impact on local meaning in the moment {Ariel, 2008
#2272; , forthcoming #2555}.

The most visible reflex of dialogic syntax occurs when one speaker constructs an
utterance based on the immediately co-present utterance of a dialogic partner. Words,
structures, and other linguistic resources invoked by the first speaker are reused by the
second, whether the second speaker's meaning is parallel, opposed, or simply orthogonal to
the first's {Du Bois, 2007 #1372}. Similarities that link the two utterances arise along diverse
dimensions of linguistic form and meaning. Patterns match at varying levels of abstraction,
from identity of overt morphology to abstract features and syntactic structures.

The following simple exchange illustrates the phenomenon of dialogic syntax:3,4

(1) (Deadly Diseases SBC015: 870.750-874.220)
1 JOANNE; (H) It’s kind of like ^you Ken.
2
3 KEN; That’s: not at ^all like me Joanne.

The first impression is that the two speakers are saying almost the same thing, with the single
exception that the second utterance negates the idea expressed in the first. But a closer
inspection reveals that there are just two points of overt morphological identity linking the utterances of the two speakers: the adverb *like* and the reduced copula ’s. Nevertheless, the perceived parallelism is far greater, and the question is why. Reformattting the exchange to display a two-dimensional alignment in rows and columns helps to selectively highlight the parallels:

(2) (diagraph)

\[
\begin{array}{ll}
1 & \text{JOANNE;} \quad \text{it} \quad \text{’s} \quad \text{kind} \quad \text{of} \quad \text{like} \quad \text{’you} \quad \text{Ken} \\
3 & \text{KEN;} \quad \text{that} \quad \text{’s} \quad \text{not} \quad \text{at} \quad \text{’all} \quad \text{like} \quad \text{me} \quad \text{Joanne} .
\end{array}
\]

This structure is called a *diagraph* (for details see below). This diagraph shows inter-speaker parallels in the selection and ordering of pronouns (*it : that; me : you*), proper names (*Ken : Joanne*), and modifiers (*kind of : not at all*), in addition to the identical resonances (*like : like; ’s : ’s*). Meaning enters into the equation via co-reference: *you* and *me* refer to the same referent (*Ken*), and similarly for the co reference of *it* and *that*. The two proper names, though distinct in reference, are linked through their common pragmatic function as vocative terms of address. At the phrasal level there are parallels in the copular predicative construction (*X is Y*), in adverbial phrases, and so on. At the prosodic level, only partly represented here, there are again structural parallels (intonation unit boundaries, final intonation) along with differences (primary accent placement).

Even with all these parallels in linguistic form, the two speakers manage to express diametrically opposed meanings. Obviously the introduction of negation by the second speaker differentiates his meaning from his partner's, but this is only one way among many to frame distinct meanings in parallel form. Dialogic syntax is not about mimicry, repetition, or agreement but *engagement*, and engagement can serve equally well to concur or to challenge. When Ken utters the word *Joanne*, his use of a proper name in vocative function would at first blush appear to precisely parallel Joanne’s utterance of the word *Ken* -- even sharing with *it* a substantially equivalent sentential frame. But the pragmatic force of the two utterances differs dramatically. Joanne’s utterance of *Ken* is needed to specify the recipient/addressee (since this conversation includes a third participant, who though silent is present at the moment of this exchange). But in Ken’s utterance of *Joanne* there is no comparable requirement for him to clarify who his utterance is addressed to, given its manifest structure as a direct response to her statement. The very parallelism is itself exploited to convey difference, and vocative *Joanne* takes cover as tit for tat while actually dripping with irony. It may seem paradoxical that divergence from another's meaning is most precisely expressed by adopting the other’s words. But formal collaboration and pragmatic subversion coexist so pervasively that we can only conclude that they feed off each other.

Dialogic syntax is not limited to parallel sequences of identical or equivalent lexical categories. The degrees of syntactic freedom extend to equivalence classes at higher phrasal and sentential levels, as in the following example:

(3) (*Deadly Diseases SBC015: 703.380-708.860*)

\[
\begin{array}{ll}
1 & \text{JOANNE;} \quad \text{yet he’s still } ^{\text{\textasciitilde}}\text{healthy.} \\
2 & \text{He reminds me [of my } ^{\text{\textasciitilde}}\text{brother].} \\
3 & \text{LENORE;} \quad \text{[He’s still walking] } ^{\text{\textasciitilde}}\text{around,} \\
4 & \text{I don’t know how } ^{\text{\textasciitilde}}\text{healthy he is.}
\end{array}
\]

Picking up on the resonance of line 3 with line 1, the second speaker begins almost identically to the first (*he’s still*), but then substitutes a phrase in place of the single word *healthy*:
Out of context, the phrase *walking around* might be taken as relating to other verb particles (*around : back : home, as in walking around : walking back : walking home*) or to other verbs (*walking around : running around : joking around*). But given the dialogic framing depicted in the diagraph in (*4), the idea of substituting verbal *walking around* is as a plausible alternative to adjectival *healthy* becomes meaningful. In this dialogic context, the former can be considered categorially equivalent to the latter at some level, and thus the theoretical equation *healthy : walking around* is rendered overt by dialogic juxtaposition. Thus an otherwise invisible grammatical equation becomes visible, to both participants and analysts—and indeed to any child that might be listening, not to mention apprehending in the process the particular structures and abstractions of the language she is destined to learn.

On the level of meaning, *walking around* from a dictionary point of view is very different from being *healthy*. But in dialogic context the identical framing of the juxtaposition (*he’s still ___*) sets up a frame which articulates the presumption that whatever element comes after it (i.e. whatever appears in the “slot” marked by the underscore) should be understood as placed into overt semantic opposition. Thus the diatactic framing puts *walking around* in a position (literally) to implicate less than full health. We could say that dialogic syntax demarcates a kind of formal relevance, whereby the local import of a word or phrase is defined in part by its mapping to a corresponding alternative. This amounts to a structural invitation to pragmatic inference. This mapping constitutes an example of dialogic *resonance*.

Within resonance it is useful to distinguish between the literal identities or close equivalences of *frame resonance* (e.g. *he’s still : he’s still*) vs. the more generalized categorial equivalences, which may encompass significant contrast as well, of *focal resonance* (e.g. *healthy : walking around*) {Hobson, in progress #2079}. Not all dialogic relations follow a strict linear sequence. The degree of syntactic freedom may extend further to include even the results of Harris-type (surface) transformations {Harris, 1952 #996}. For example, close inspection reveals that the discourse excerpt in (3) contains another notable syntactic parallel, between lines 1 and 4. To gain a more informative display, a reordering of words is useful. This is illustrated in the following diagraph, where by convention curly brackets {} are used to indicate that the enclosed element is presented in an ordering which differs from the originally uttered word sequence:

The parallelism here visibly underscores the epistemic gap between affirmation and doubt of the dialogic partners, reinforcing the skepticism already invoked in the equation *healthy : walking around*. While a plodding linear word-by-word sequential analysis would miss part of the dialogic engagement, a richer and probably more accurate picture appears once we take into account the full range of speakers' knowledge about syntax. It is worth noting that this is precisely the reason why the inventor of the syntactic transformation—Zellig Harris—created this concept in the first place {Harris, 1952 #996; Harris, 1952 #2316}. Thus the effects of surface-to-surface transformations (what we might call Harris transformations) constitute a highly relevant dimension of speaker knowledge about grammar, contributing substantially to
the potential for discovering certain non-sequential aspects of dialogic syntax.

These brief examples give a first glimpse of what constitutes the relation of dialogic resonance between elements in discourse. The question remains as to what we should make of the phenomenon. Such parallels could be dismissed as resulting from chance resemblance, or, more plausibly, from the limited expressive options available within a given topic, narrowing the verbalization options to a restricted semantic domain within which the two speakers must operate. Though valid to as far as it goes in certain limited cases, the plausibility of this line of argument as a general explanation will be seen to fade rapidly as the complexity of the dialogic syntactic relations increases. (This issue is taken up below under the heading of “Content Mediation”.)

Four motivations

Why should we care about dialogic syntax? What is to be gained by pursuing an analysis of structural parallelisms and resonances in dialogic interaction? It is important to consider why speakers might be going to all this trouble—if indeed they are doing anything at all—and what it implies about the nature of language. There are many possible answers as to why we should study how (and indeed whether) speakers deploy grammar to create resonance in discourse. Here I will mention just four reasons for looking at syntax in dialogic terms.

First, dialogic syntax has consequences for meaning. When a speaker’s words are arrayed in parallel to the words of another, resonance is created between the two lines. What’s more, this level of formal engagement across utterances produces pragmatic consequences for implicated meaning {Ariel, 2008 #2272}. While pragmatic enhancements of meaning have long been attributed to the effects of context—valid, as far as it goes—there is no reason that context should remain forever a domain of vague appeals, an unformed source of ill-defined meaning components. Rather, dialogic syntax has a lot to say about the exact shape of the discourse context, identifying new dimensions in the formal relations among signs, and offering the potential to precisely articulate their consequences for meaning. Dialogic syntax posits certain formal relationships which as yet have no standing in, and indeed are invisible to, traditional linear syntax. But in its capacity to identify new kinds of facts about detailed mappings between one internally structured utterance and another, dialogic syntax stands ready to describe the formal engagement of independent structures. The newly defined relationships can be shown to articulate and catalyze the derivation of certain pragmatic implicatures. Without a recognition of the role of dialogic syntax these consequences for meaning would be incomprehensible.

Second, dialogic syntax brings a vast new territory of spoken language phenomena into effective range of direct description and efficient theorization. Whereas normative monologic grammar tends to leave the complexities of naturally occurring spoken language use in the realm of the invisible (or even untouchable), fit for theoretical treatment only after it has been cleansed of disfluencies and other inconveniences, dialogic syntax has little need to partition a priori the natural products of dialogic interaction into the (normatively) acceptable versus the unacceptable. Rather than invoking normative and even prescriptive conceptions of grammaticality to shield a fragile grammar incapable of handling the full range of encountered phenomena, dialogic syntax embraces the spoken way of creating language and straightforwardly brings its characteristic processes into the purview of direct description and theorization. Viewed from this angle, most of attested spoken language should ultimately yield, it is hoped, to direct description and systematic interpretation within a unified theory of grammar.

Third, dialogic syntax provides confirming evidence for the psychological reality of
abstract linguistic analysis, at all levels from phonology to morphology to syntax and beyond. Surprisingly, it makes available an unexpected new source of evidence to validate legitimate claims for the abstractness of linguistic structure. Speakers engaged in the heat of spontaneous dialogue reveal impressively orderly ways of building their talk, in seeming acknowledgment of the relevance and validity of the paradigms and structures described by linguists. Speakers respond to the immediate challenges posed by their partner’s utterance in ways that can only be explained as the exploitation of surprisingly abstract structure and pattern at all levels. Thus the study of dialogic pattern is poised to provide results which incidentally, as one unintended consequence, confirm many of the consensus claims about the hierarchical organization of sounds, words, phrases, clauses, and units of meaning put forward by the authors of traditional, structural, descriptive and even some generative grammars throughout the last century. In some cases, dialogic syntax may provide evidence allowing us to choose between competing claims about linguistic structure. Yet dialogic syntax would be deficient if it remained at the level of mere support for (or against) existing claims about abstract structure. Rather, its ultimate potential lies in the capacity to push the field to think in new ways about the nature of linguistic abstraction—but in more realistic terms. For a start, dialogic syntax proposes to give abstraction a name and a habitation—a natural context of occurrence in the dialogic moment, in which the process of abstraction can be observed, described, and theorized. Abstraction with all its power to create generality in grammar becomes an empirically observable process, as it is locally enacted between speakers engaged in real-time dialogic interaction. On this view, dialogue engagement and abstract structure are equally part of what speakers know about grammar—and speakers know how to exploit them together. They invoke the syntactic structures, paradigms, and other abstractions of grammar to do structural work not just within utterances but across them—for example, to maximize resonance across utterances produced by different speakers in interaction.

Fourth, the processes of dialogic syntax create a rich environment for what we may call dialogic bootstrapping. Research on dialogic syntax documents how adult conversational participants talk in paradigms, parallelisms, and other implicitly analogy-implicating structures, which they construct collaboratively for their own reasons, partly responding to the local exigencies of real-time interaction. But whether intended or not, their dialogic actions frame an ideal site for the ongoing learning of linguistic structure by any young children in attendance (not to mention other adults). The connection of parallelism and reproduction across closely juxtaposed utterances can be mobilized to support children’s learning processes. The details of how dialogic syntax may contribute to this process are as yet little known (but see Keenan, 1977 #459; Clancy, 1996 #70; Tomasello, 1999 #445; Tomasello, 2003 #1135; de León, 2007 #2404), and remain mostly beyond the scope of this article; nevertheless, a few brief remarks are in order here. If children prove capable of monitoring adult language use in terms of some very basic principles of dialogic syntax (such as maximizing resonance locally), the result could be a richer enhanced linguistic environment where certain kinds of rapid learning start to make sense. Child-adult continuity of learning becomes well-grounded in observable evidence, to the extent that the image of language use that is accessible with even limited memory can now include a rich array of mapping relations between immediately adjacent utterances. Enriched by local dialogic mappings, this environment yields a combinatorial explosion of information about the structure of the language in question. Given the support of dialogic bootstrapping, child and adult can both learn new elements of language in a dialogic environment that powerfully supports the formation of new, functionally relevant abstractions of categories and structures. On another level, the same dialogic processes feed into the grammaticization of new structure over historical time, as dialogic syntax motivates analogies and reanalyses which fuel the
systematic creation of new grammar {Du Bois, 2003 #25}.

There are still further reasons that could be given for attending to the phenomena of dialogic syntax, but these four should provide sufficient motivation to get started with the inquiry. Observations supporting these four potential contributions of dialogic syntax will be commented on in passing during the course of this paper, in conjunction with a series of illustrative examples introducing the fundamentals of dialogic syntax.

**Basic concepts**

In this section I introduce several of the key concepts necessary for analyzing the phenomena of dialogic syntax. Because the phenomena of dialogic syntax are inherently complex, this means that each example is likely to involve multiple factors simultaneously in play. For expository purposes, it becomes necessary to break down the concepts in order to present them each in their own terms. But this analytical approach may yield some artificiality and even untidiness in the discussion, as the phenomena in question overspill the boundaries of the sections dedicated to their description. It is hoped that the reader who persists to the end of the paper will find that the necessarily fragmented descriptions of individual concepts will begin to assume their appropriate place in an integrated picture of what goes on in dialogic syntax.

All examples throughout this paper are drawn from naturally occurring language use. Recognizing the importance of ordinary conversation for any study that concerns itself with “what speakers do most,” the linguistic materials that constitute the focus of the present work are taken from the carefully transcribed conversational interaction of the Santa Barbara Corpus of Spoken American English {Du Bois, 2000 #296}. As such they represent participants’ routine, spontaneous processes of verbal engagement in interaction—in an environment that leads naturally to dialogic syntax.

**Diagraph**

A *diagraph* is a complex relation consisting of structured mappings which arise between two internally structured strands when they are dialogically juxtaposed in discourse. *Diagraph* (from *dia-* ‘across’ plus *graph* ‘mapping’) means essentially ‘mapping across,’ i.e. mapping structural relations across utterances. The structure of each utterance in itself may be taken to be as given by linear syntax. Dialogic syntax incorporates this sentence-internal structure but then goes beyond it to identify further structural relations between the paired utterances, at the level of mappings between linguistic elements. As a syntactic object, the distinctive feature of the diagraph is that it constitutes a mapping relation that *crosses over* between domains: between two speakers, two clauses, or two intonation units.

There are many ways to draw a diagraph. Consider the exchange in (1), repeated here for convenience:

(6)  *Deadly Diseases* SBC015: 870.750-874.220
1  JOANNE; (H) It’s kind of like ^you Ken.
2  (0.8)
3  KEN; That’s: not at ^all like me Joanne.

We can make a very informal diagraph of the key resonances here by selecting the relevant *strands* (linear sequences within internal structure which are mapped onto each other), identifying the resonances, and aligning resonances vertically while preserving the facts of
linear syntax regarding each strand, including sequence and hierarchy. In a most informal notation, with some degree of diagrammatic iconicity, we have:

(7) (diagraph)

1 JOANNE; it ’s kind of like ^you Ken .
3 KEN; that ’s not at ^all like me Joanne .

In the conventions of the basic diagraph, each dimension has a meaning. The horizontal dimension represents temporal sequence within units, e.g. linear succession of words within a clause. The vertical dimension represents temporal sequence between units, e.g. the rhythmic succession of intonation units one after another. (Some of these conventions are simply the standard conventions for written language, which moreover are adopted by most transcription systems {Du Bois, 1991 #294}.) But vertical columns also represent something more: the relation of mapping between elements in successive strands, i.e. to mark resonance.

There are two important features of the diagraph notation that are sometimes overlooked. The diagraph representation always includes a notation (e.g. JOANNE;) indicating who is the speaker of each utterance (i.e. the voice or other authorial source). This emphasizes the fundamental dialogic fact that the utterance in a diagraph is an actual embodied utterance and as such is necessarily produced by some actual agent (whether that of an individual speaker, writer, institution, government, etc.). This is, after all, dialogic syntax, and it is important to reserve a space to recognize the actual speaker who wields a voice and thereby participates in creating structures of engagement with other speakers.

Second, as a practical matter, the standard diagraph representation always includes line numbers (or a functionally equivalent indexing notation) for cross-referencing each line of the diagraph with the corresponding line numbers in the original transcription. This is important for several reasons. Diagraphs need to be kept relatively clean and simple if they are to allow readers to absorb and understand the information they convey best: the resonance mapping relations. In the standard two-dimensional diagraph notation, to try to directly reproduce everything contained in the original transcription (e.g. the exact temporal configuration of overlap in simultaneous speech) would produce unnecessary clutter. Doing this twice is ill-advised—that’s what the original transcription is for. Instead, the diagraph is kept simple, while the line numbers serve as co-indexes allowing readers to coordinate the information in it with the full complexity of detail found its sister representation, the transcription.

The diagraph representation given above represents certain mappings with seeming clarity (it : that; like : like; you : me; etc.), but it is vague about the details of other mappings (e.g. kind of : not at all). Does the representation claim that kind : not is a mapping? This is presumably unintended, and indeed undesirable. A more formal alternative is the chart diagraph notation. This makes the posited mappings more explicit, for better or worse:

(8) ?(diagraph)

1 J; it ’s kind of like ^you Ken .
3 K; that ’s not at ^all like me Joanne .

But this mapping is not only explicit, but probably wrong. Alternatively, taking advantage of the explicitness available in the chart notation, we can make it clear that it is not at all (as a unit) that maps onto kind of (as a unit):
For some purposes it may be useful to label the columns with letters, for example if it is necessary to refer to a particular column in the text. By convention the column labels employ successive letters of the alphabet (formatted as small capitals in italics). (Here we abandon the above chart notation, returning to more commonly used tabbed presentation for convenience. This is less explicit, but adequate for most non-technical expository purposes.)

Note that column labels can be used to imply a resonance between kind of : not at all, rather than kind : not. Though sometimes useful, column labels are often dispensed with to avoid unnecessary clutter.

The simple diagraphs presented so far make a start at capturing what speakers know about dialogic syntax, i.e. about dialogic mappings between resonant utterances. But there is more to speakers’ knowledge than this. Compared with the rich mapping information that discourse participants cognitively construct in making their own diagraphs, an analyst’s attempt to make a two-dimensional representation of it is likely to provide only a partial picture. It is worth asking whether we can capture more of what they know—more of the diagraph’s structure—in our representation of it. These issues are explored further below in the section on “Diagraphing Abstract Structure”.

Note that the diagraph is a linguistic embodiment in actual utterance tokens, constituting a graph relation in the mathematical sense. That is, it is realized in actual relations of resonance manifested in arcs between nodes of strands uttered in discourse. The “graph” in diagraph is not intended to imply that it is a picture or representation of something, but rather denotes a relation between certain pairings of linguistic objects which is comparable to the relation between certain pairings of mathematical objects (i.e. the graph relation). Diagraphs represent abstract structures that speakers build up in real time as the dialogic interaction unfolds. The assumption is that diagraphs are real for speakers (though they may or may not be consciously available to them as such in ordinary circumstances).

As analysts we attempt to represent the diagraphs that discourse participants perceive. It must be acknowledged from the outset that the representations we make on paper are only a meager approximation to the rich structures that the discourse participants jointly constitute. (Given the perspective of distributed cognition, we need not assume that one individual speaker has a fully developed diagraph in his or her head at any given moment. The diagraph could be considered a property of the distributed cognitive system; but that is another story.) Where context makes clear the difference, we can speak loosely, following the linguistic tradition of calling a linguistic phenomenon and the representation of it by the same name. To speak precisely we could distinguish between diagraph (the actual ‘mapping across’ relation) versus dia-gram (referring to the practical notation representing the actual diagraph). But this terminological distinction is perhaps too puristic for routine use. In general, the term diagraph can be used interchangeably for the phenomenon or for its representation, when it is clear from context which meaning is intended.
Resonance

As noted above, resonance can be defined as the activation of affinities across utterances. Resonance is a property of relations between elements, and as such cannot be attributed to any element in isolation. Yet an object may have properties intrinsic to it which make it a candidate for resonance with certain other objects, if the facilitating conditions are activated. In the domain of physical sound, a tuning fork has by design a particular frequency at which it will readily vibrate, as when struck against a hard surface. If while vibrating it is then brought near another tuning fork of a compatible type (that is, with the same potential frequency), the second fork—which never touches the first—will begin to resonate at this same frequency. Taking the analogy a step further, the resonance of a taut string or a cavity with several different potential frequencies will respond to whichever of these it is exposed to (though not to just any frequency). (Actual physical resonance of course plays a direct role in language in acoustic phonetics, where certain potential frequencies of the vocal tract in a given configuration may be activated through resonance, creating formants.)

Applying this perspective to the domain of language, we may draw an analogy to what happens when one word or structure is brought into relation to another within the framework of a dialogic juxtaposition. The pairing may foreground one specific feature, activating the affinity that links the two while ignoring other features that might have emerged given a different pairing. We have encountered this already in the discussion of the resonance of healthy : walking around in (3) and (4) above.

Consider the following example:

(11) (Deadly Diseases SBC015: 849.456-852.290)
1 LENORE; (TSK) So your mother’s *happy now.
2  
3 JOANNE; (H) My mother’s *never happy.

The resonance is more visible if the resonating elements are aligned vertically in columns, as in the following diagraph:

(12) (diagraph)

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<tr>
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<th>A</th>
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<tbody>
<tr>
<td>1</td>
<td>LENORE; so your mother’s *happy now.</td>
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<td>3</td>
<td>JOANNE; my mother’s *never happy.</td>
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What we see here is an array of linguistic elements in the second speaker’s utterance which “resonate” with elements in the prior speaker’s, that is, they display an ordered set of mapping relations involving activated affinities in meaning and structure.

We may consider any representation of such ordered arrays of diatactic alignments, such as that displayed in (2) above, as a diatax graph, or diagraph for short. A diagraph displays an ordered abstracted representation of (some of) the dimensions of parallelism between two or more utterance portions, whether by one or more speakers. Practically speaking any diagraph must surely be incomplete. It virtually impossible to display more than a selection of the possible dimensions of resonance, given the fertility of the human mind. When all aspects of form and meaning are considered, even apparently simple cases of dialogic interaction can turn out to involve many dimensions.
(13) *(Deadly Diseases SBC015: 849.456-856.005)*

1  LENORE;  (TSK) So your mother’s ^happy now.
2  (0.2)
3  JOANNE;  (H) My mother’s ^never happy.
4  [My mother wouldn’t be happy if] everything was g—
5  LENORE;  [Excuse me (Hx):].
6  JOANNE;  (%) everything was ^great,
7  and everything ^is great.

(14) *(diagraph)*

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<tr>
<td>1</td>
<td>LENORE; so your mother’s ^happy now</td>
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<td>3</td>
<td>JOANNE; my mother’s ^never happy</td>
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<td>4</td>
<td>my mother wouldn’t be happy if everything was g—</td>
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<tr>
<td>6</td>
<td>and everything ^is great</td>
<td>.</td>
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- Resonance is a process of activating relationships between comparable linguistic elements at any level: structures, words, morphemes, phonemes, features, meanings, referents, illocutionary forces, etc.
- Resonance is a property of *relations* between elements in discourse, and as such cannot be attributed to any element in isolation.
- Many affinities are standardly available to all members of a speech community; these are thought of as stable linguistic structure, as identified by standard techniques of linguistic analysis.

(15) *(Risk SBC024: 299.283-306.456)*

1  JENNIFER;  <VOX> Look at ^you being smart.
2  (1.0)
3  DAN;  (H) @
4  (0.7)
5  I’m not ^smart?
6  (0.3)
7  JENNIFER;  You’re ^stupid <VOX>.
8  (0.9)
9  DAN;  Don’t ^call me stupid.
Resonance resources

Where does resonance come from? While resonance is by definition generated in the dialogic process, as an activation in language use of potential affinities, we may rightly ask where this potential comes from. In cases of dynamic resonance, we can say that the source of resonance lies in the immediate dialogic configuration of meanings: in such cases, the resonance may rightly be called emergent. But it would be unrealistic to suppose that all resonance is created on the fly, without reference to ready-made meanings and structures. What do speakers of a given language, members of a given culture, have already available to them when they enter into a conversation? What resources are already in memory in advance, ready to be drawn on for the present conversation? How many of these resources will be shared by other members of the community? On one level, the sources of resonance probably cannot be fully enumerated, for the simple reason that human imagination is open-ended. But it is nevertheless useful to point to a few broad classes of resonance sources.

First, there are semantic fields, whether viewed through the lens of the classical structural semantic approaches, or through a more feature-oriented componential analysis, or in terms of the more traditional notion of the semantic paradigm. Much of the current doubt about structuralist analyses might well be dispelled through an examination of the evidence of dialogic syntax. Again and again, we witness dialogic co-participants speaking as though they were drawing on paradigmatic alternatives within a semantic field, seemingly exploiting just the kind of structure described by the great structural linguists from Saussure on (Saussure, 1916 #2089; Thibault, 1997 #2088).

Consider the prior knowledge about semantic fields and paradigmatic alternatives in the domain of playing cards that the participants must have brought with them to the following conversation:

(17) (Risk SBC024: 1446.837-1485.817)
1  DAN; Okay.
2  So pass three cards.
3  So we [wanna] (0.4) pa:ss,
4  JENNIFER; [(%)]
5  (0.4)
6  JENNIFER; (H) Alright.
7  Pa:ss,
8  JENNIFER; We’re gonna pa:ss,
9  the king of (Hx) spades.
10  DAN; King of (0.7) puppy-dogs’ feet.
11  (0.6)
12  @
13  (1.2)
14  (H) How come you don’t pass the king of: clubs.
15  (0.6)
JENNIFER; (H) I might.

(1.8)

I don't have any aces here.

(0.2)

I'm gonna pass a low heart.

(0.5)

Just so they can't shoot the moon.

(0.7)

I got the ace of hearts,

(1.2)

Okay.

(1.0)

Two of clubs.

King of clubs.

Ace is out.

So my queen is the highest there.

(2.0)

Alright,

my jack is the highest there.

(1.2)

DAN; So you wanna play that now.

We can abstract out some of the key resonances (as I believe speakers do) in the form of a (partial) diagraph, as follows.  

(18) (diagraph)

8,9  JENNIFER; {} pass | the  king  of  spades

10  DAN;  

14  {} pass the  king  of  puppy-dogs' feet

18  JENNIFER; {} have any aces

20  {} pass a  low  heart

24  {} got the  ace  of  hearts

28  two of clubs

29  king of clubs

30  ace

31  {} my  queen  is the highest there

34  my  jack  is the highest there

36  DAN;  {} play that

We immediately see that there is a high degree of parallelism here, in words, meanings, and especially in grammatical pattern, including repeated instances of the relational formula the X of Y. The speakers are drawing on a complex network of interrelated cultured roles, which shows up clearly if we track the use of definite determiners (like the, my, and so on). Relationality is spelled out explicitly with the genitive preposition of, in the grammatical formula the X of Y. Passages of intensely patterned speaking like this are at once reflections of richly patterned knowledge, a rich resource for resonance in dialogic contexts. At the same
time they make it possible for one who is in process of learning the patterns of their culture (like anyone trying to learn how to play cards) to extract categories like the “vertical” paradigm of ranks king, ace, queen, two, jack but also the “horizontal” (or syntagmatic) cultured relations that tie them together: the king of spades, the ace of hearts. Consider the following set of locally embodied paradigms, arrayed in syntagmatic order:

Table 1. Paradigms from/for card discourse

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<td>pass</td>
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<td>king</td>
<td>of</td>
<td>spades</td>
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<tr>
<td>play</td>
<td>a</td>
<td>queen</td>
<td></td>
<td>clubs</td>
</tr>
<tr>
<td>got</td>
<td>my</td>
<td>jack</td>
<td></td>
<td>hearts</td>
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<tr>
<td>have</td>
<td>any</td>
<td>aces</td>
<td></td>
<td>puppy-dogs’ feet</td>
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<tr>
<td></td>
<td></td>
<td>ace</td>
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<td>highest</td>
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In effect these paradigms of language are simultaneously paradigms of culture. The structured semantic and grammatical relations between words in this field are the product of dialogic configurations like those constituted in this conversation, and in another sense they represent structures which are already available in culture/language as a resource for the production of resonance. No doubt structural semantics will need to be substantially updated in order to handle the dialogic dimensions of resonance (especially for dynamic resonance; see below). My point here is simply that speakers come to a conversation already equipped with a systematic body of structural knowledge, which is to a large extent shared with other members of the same culture and language. Not everything in conversation needs to be constructed on the fly, nor would this even be possible: we need something to work with, even when making new patterns. On the other hand, we may consider that the context of dialogic engagement is also the source, ultimately, of the patterning of language.

Another source of resonance is the referents themselves: the content or subject matter that is being spoken about. As is well known, anaphoric reference establishes cohesive links regardless of whether the forms used are the same or not. For example, when ‘shifter’ pronouns are used to refer to a discourse participant, we may find two different forms used for the same referent.

(19) (Risk SBC024: 299.283-306.456)
5   DAN;   I’m not ^smart?
6   (0.3)
7   JENNIFER;   You’re ^stupid <VOX>.

Here, both I and you refer to Dan, constituting one source of resonance for the following diagraph:

(20) (diagraph)
5   DAN;   I’m not ^smart ?
7   JENNIFER;   you’re ^stupid .

The equivalence of reference despite the different pronouns is part of what these speakers
know, and reflects the referential basis of some of the dialogic resonance. (Of course there are additional grammatical dimensions to the resonance of I and you as well: they are both personal pronouns, both are morphologically in nominative case, both occur in syntactic subject position, etc.)

In contrast, there may be resonance in linguistic form between pronouns even if coreference does not occur—indeed precisely when there is no co-reference:

(21) (Risk SBC024: 3.700-20.421)
1 JENNIFER; .. (H) .. Do you have any sharp ^objects on you?
   ((4 LINES OMITTED))
6 DAN; You have anything in your ^hair?

(22) (diagraph)
1 JENNIFER; do you have any sharp ^objects on you ?
6 DAN; you have any- -thing in your ^hair ?

What is different this time is that the form you is used twice, but with two different referents. Jennifer’s you refers to Dan, while Dan’s you refers to Jennifer. Here lexical form grounds identical resonance, while reference diverges.

A full survey of the resonance resources available to any pair of dialogically engaged speakers would be a vast undertaking, to say the least. There are many additional linguistically and culturally stable sources of ready resonance, which are too complex to fully explore here. Suffice it to say that resonance resources can be derived from linguistic structure at all levels including phonetics, phonology, prosody, lexicon, morphology, syntax, and discourse; as well as from functional systems including pragmatic, interactional, cognitive, intertextual, and ultimately cultural systems. In the end, describing the full range of resonance resources available to members of a speech community may turn out to be equivalent to a full description of the language, in all its dimensional complexity. For that matter, this might not be a bad way to go about organizing the process of describing a language, if one wants to know what speakers know about how the language is really used. Anthropologists might argue that the project should include great portions of the culture as well.

**Creative resonance**

Resonance could be thought of as some kind of algorithmic process of feature-matching, except that sometimes the features in question are dynamically induced by the resonance process itself. That is, some affinities are not pre-existing, but are discovered or even created in the process of resonance production. Novel resonances may even be understood the first time we encounter them, thanks to information supplied implicitly by the overall diagraph. In such cases, equivalence of meaning may be more a result than a source of resonance. We can thus recognize a contrast between presupposing resonance, which builds deductively on pre-existing resonance resources (as described in the previous section), and creative resonance, which takes an abductive leap to the recognition of novel resonance.

Consider the following example (from the same conversation about cards cited above):
The novel phrase *king of puppy-dogs’ feet* is quite opaque for most speakers of English, the great majority of whom do not recognize its intended meaning when presented out of context. And yet a participant in the above conversation who had never encountered the term before can make out what it means by exploiting information from the diatactic mapping across adjacent utterances. Consider the diagraph below:

```
(24) (diagraph)

A       B       C       D       E       F       G       H       I       J       K
8  JENNIFER;    we’re gonna pass ,
9   the king of (Hx) spades ,
10  DAN;         King of (0.7) puppy-dogs’ feet .
11  (0.6)
12  @
13  (1.2)
14  (H) How come you don’t pass the king of: clubs .
```

Here *puppy-dog’s feet* is mapped to both *spades* and *clubs* within the diatactic frame *king of __*. Immediately we suspect, on grounds both paradigmatic (*puppy-dog’s feet:spades:clubs*) and syntagmatic (*king of __*), that *puppy-dog’s feet* names a suit of cards. Specifically, it is likely to mean either ‘spades’ or ‘clubs’, depending on whether we think D was glossing his own or his partner’s utterance. Having narrowed the possibilities down to just two on dialogic grounds, we then might decide the matter by invoking the iconic relationship between the shape of a dog’s footprint and the shape of the clubs sign in cards. But without the diatactic mapping to point us in the right direction, we are not likely to arrive at the appropriate candidates for an answer, iconicity notwithstanding.

We may consider such cases of locally created novel resonance to be *creative*, in that they generate new understandings and/or new possibilities for resonance. Among cases of creative resonance, some will persist and be propagated through a broader discourse community. Others will be evanescent, dissipating as soon as their immediate supporting dialogic environment disappears. (The latter are especially likely to be involved in humor, of a sort that is quite incapable of being reproduced the next day with a different audience.) Such changes, even if only a few make it through the selective filters of discursive reproduction, are very important in that they constitute a key source for historical change. Historical linguists have long recognized the central importance of analogy in language {Anttila, 1977 #2553; Itkonen, 2005 #1440}, but the importance goes beyond history to grammaticization and hence to grammar itself. Dialogic syntax, and in particular the concept of creative resonance, may hope to contribute to this understanding by locating the actual conditions—perhaps even the very moment—of the origins of the analogical process.

**The Resonance Principle**

The evidence presented so far suggests that speakers place a certain value on the activation of resonance between utterances. The value placed on resonance is evidently high
enough that speakers sometimes go out of their way to create it, even to the detriment of other goals they may have for their utterance. Taken at face value, this might seem to argue that speakers are following what we might call the Maxim of Resonance. This maxim, true to its name, translates to a simple two-word injunction:

(25) **Maxim of Resonance:** Maximize resonance.

The question is, whether this simple rule can stand up to scrutiny. Although speakers seemingly do care about resonance, it’s not the only thing they care about. The resonance value evidently co-exists with other values, such as those expressed in the Gricean conversational maxims {Grice, 1975 #2549} and politeness maxims {Brown, 1987 #2550}. Clearly, some of the Gricean maxims do not necessarily lead to the manifestation of resonance, and may indeed oppose it. For example, Grice’s Maxim of Quantity urges a focus on informational content that would seem to conflict with application of the Maxim of Resonance in many cases. The injunction to maximize informativeness would tend to enjoin speakers to fill their utterances with new information; in this light, repeating what has already been said could be seen as a waste of time and effort. On the other hand, Grice’s Maxim of Manner seems more promising, as it touches on the form of the utterance (including its “clarity” and “orderliness”). Stated briefly, the injunction is to “Be perspicuous,” which makes it the most likely candidate among Grice’s maxims to be compatible with resonance, or at least it may be extended to accommodate it. Yet even here, questions about compatibility with the Gricean notion of a maxim urges a more cautious approach to characterizing the motivating force of resonance. Setting aside for now the question of its status as a maxim, we can in the meantime formulate a Resonance Principle:

(26) **Resonance Principle:** All else being equal and under appropriate conditions, maximize resonance.

In evaluating speakers’ orientation to resonance, it’s important to recognize that resonance does not occur in a grammatical vacuum. Many aspects of any diatactic juxtaposition can only be recognized as resonant upon the attainment of a certain degree of abstraction away from what is immediately given in the speech signal. Rarely if ever are any of the features we take to be parallel transparently visible as such in the raw phonetic forms themselves. Maximizing resonance is not just about reading off the obvious from two successive utterances. Rather, it often requires speakers to invoke the abstracting power supplied by the analytical system of language, as well as the full array of cognitive resources that underlie inference.

**Engagement**

Engagement implies a form of connection along which energy or information can travel. We engage with a thing, an issue, a work of art, a person, to the extent that we find such points of connection. This connection need not be based on sameness, like-mindedness, or agreement. We engage what we struggle with as much as what we play with.

In its most systematic form, engagement is manifested in structures that organize or constitute the means of connection. From the dialogic perspective, one of the most valuable contributions that formal structure has to offer is its potential for facilitating connections across otherwise disparate utterances.

When speakers design the form of their utterance to engage with the form of another's
utterance, we find that something more than just form is implicated. The meanings themselves become linked in subtle ways. Some configurations of meaning are even impossible to establish without the right connection in form. The evidence leads us to conclude that there is a general principle tying such forms and meanings together, which we may call the Principle of Engagement:

(27) **Principle of Engagement**: Engaged forms make engaged meanings.

Consider the following brief conversational exchange, which repeats part of an example cited earlier:

(28) (*Deadly Diseases* SBC015: 703.380-705.800)

1  JOANNE; yet he’s still ^healthy.
2  He reminds me [of my ^brother].
3  LENORE; [He’s still walking] ^around,

The syntactic frame he’s still ___ helps support the mapping of the verbal walking around to the previously uttered adjective healthy:

(29) (*diagraph*)

1  JOANNE: yet he ’s still ^healthy .
3  LENORE: he ’s still walking ^around ,

But there is more than grammatical mapping going on here. A local pragmatic scale is constituted dialogically which sets up ‘healthy’ and ‘walking around’ as two points on a scale of health. Once walking around is mapped to healthy, the failure to endorse healthy and the selection of an alternative (for it is presented as an alternative, but of course only in such a diatactic context as this) makes it evident that saying walking around endorses only the most minimal level of health. It is inescapable that the weaving together of rich array of formal relations across these utterances established linkages between the speakers’ meanings themselves.

**Commensurability.** The criterion of communication is not commonality but commensurability, as the articulate utterance of one speaker constitutes a frame for fertile contact with another's. Immediate meaning and potential systematicity are the historical offspring of this meeting. In dialogic syntax, commensurability along any perceptible dimension of language invites alignment.

**Bidirectionality of engagement**

Curiously, the implications for engaged meanings flow both ways, even to the extent of effecting in a sort of time reversal. As soon as engagement is established, not only does the first utterance become an environment for the second -- capable of shaping its implicated meaning -- but likewise the second makes a new context for the first, potentially unfixing its former meaning and giving it a new one. Such a shift in the meaning of an already-interpreted utterance we can call backframing. One simple and pervasive kind of backframing is to make an earlier utterance into a prior text; when first uttered, it was not necessarily heard as one.
(30) *(Raging Bureaucracy* SBC004: 1150.41-1153.91)

1. CAROLYN; But we got Missis Lindberg,
2. who was like,
3. .. the first *granola woman* I ever met.
4. (H) (0.4)
5. PAM; @*Granola @wo[man]*.

Carolyn uses the colorful phrase *granola woman* (implying, perhaps, that she is some kind of hippie) to refer to someone. But then Pam self-consciously reproduces this phrase, with laughter, yielding a diagraph like the following:

(31) *(diagraph)*

3. CAROLYN; the first *granola woman* I ever met  
5. PAM; <[@> *granola woman* </@> 

By introducing a metalinguistic focus on the poetic qualities of the prior utterance, she effectively changes the local significance of the first utterance. What this suggests is that the meaning of an utterance can be changed by what comes after it, not only by what comes before. Like it or not, speakers may find their meanings recontextualized in ways they did not intend. Still, they may have to end up dealing with the retrospectively introduced implications of their words.

**Diatactic chains & dialect chains**

For a speaker to participate in creating a diatactic chain, it is not necessary to share a complete grammar with the other participants. It is only necessary to share enough to resonate within the domain of engagement. Dialect differences within a conversation are normal and acceptable, and cause no problem for the theory of dialogic syntax. Diatactic chains as syntactic objects are subject to rigorous syntactic constraints but may in principle reflect the contributions of more than one distinct grammar without any ill consequences.

In fact it is in principle possible in a very long conversation (such as might take place, with shifting participation, in a large urban train station open 24 hours for decades) for the conversational participants to come and go. The dialogic participants at the end of the diatactic chain may be different from those participating at the beginning, and indeed those participants alive at the beginning may not be equivalent to those alive at the end. The integrity of the diatactic syntactic object is not affected.

Moreover, since diatactic chains are extended over real time, which is to say historical time, it is in principle possible for them to encompass the results of linguistic change that has occurred within their span. While this might seem far-fetched, there is no principled theoretical ground for excluding such cases. The theory of dialogic syntax, being based in opportunistic processes that establish local relations between juxtaposed utterances (near or distant, present or absent), is not inconvenienced by such phenomena. Once a dialogic model has been elaborated which can account for the degree of local contingency attested in diatactic chains of documented (large) size, it is no longer dependent on the simplifying assumptions that have been thought necessary to conduct syntactic inquiry. In particular, it will not be necessary to shield grammars from the parsing demands of variation across divergent dialects or multilingual speakers.
**Is this syntax?**

Is dialogic syntax syntax? Not syntax as we know it, to be sure. But can we justify extending the word *syntax* to characterize the phenomena introduced in this paper, and the theory that seeks to describe them? And even if this extension should be accepted, a further question arises: How does the new category of *dialogic syntax* relate to the existing category of *syntax* as traditionally understood? (To avoid confusion in the discussion below, it will be necessary to introduce the term *linear syntax* to refer to the traditional, non-dialogic kind, as opposed to *dialogic syntax*.) The questions to be addressed in this section turn out to be more than just terminological, as they will be seen to have important implications for how we interpret the analyst’s orientation to the phenomena of language, and to the job of describing and theorizing these phenomena. In all cases it will be necessary to distinguish carefully between the analysts’ theories and the phenomena they seek to describe, a line that is often blurred in discussions of syntax, and of grammar in general.

**Isolated sentences and linear syntax**

It is uncontroversial that the internal structure of most of the individual sentences discussed above could be treated under the traditional rubric of syntax, of whatever theoretical guise, with greater or lesser insight as the case may be. As isolated sentences they might be presented as follows:

(32) *It’s kind of like you Ken.*
(33) *He’s still healthy.*
(34) *So your mother’s happy now.*
(35) *And everything is great.*

In some cases a traditional grammarian might even present the individual sentences in sets. Often, the special relation assumed to hold between set members is actively suggested in the designation with a common example number for the entire set, whose members are distinguished only as sub-types or instances of a common category, labeled *a, b, c*, etc.:

(36)  a. *It’s kind of like you Ken.*
      b. *That’s not at all like me Joanne.*
(37)  a. *So your mother’s happy now.*
      b. *My mother’s never happy.*
(38)  a. *Everything was great.*
      b. *And everything is great.*

In any case, the isolated sentence linguist is likely to clean up such data in order to attain greater homogeneity, the better to test the matter in question. The idea is to remove every variable element except the one needed to make the contrast currently under analysis—a kind of syntactic “minimal pair”:

(39)  a. *It’s kind of like you.*
      b. *It’s not at all like you.*
(40)  a. *Your mother’s happy now.*
      b. *Your mother’s never happy.*
(41)  a. *Everything was great.*
      b. *Everything is great.*
Here the dialogical potential of the sentences (and sentence pairs) has been effectively erased: there is no longer any hint of their being designed to be used for engagement, to be deployed as successive turns in an exchange between two people. They have become “example sentences”, built not to create engagement but to illustrate, for purposes of the linguist, some rule or principle of grammar.

In the isolated sentence model, each sentence is to be analyzed according to its own internal structure, which is to be discovered by comparison with other (isolated) sentences drawn from the entire set of possible sentences in the language \{Harris, 1951 \#750\}. In this model the fact that certain sentence tokens happen to occur near others in discourse has no special standing. Whatever coherence across sentences we may naturally try to read into a listing of individual sentence ‘examples’ like the above \{Fillmore, 1981 \#2289\} has no place, theoretically, in traditional sentence syntax. Of course there are some relations extending across sentences, such as anaphora, which have received valuable attention from grammarians. But I wish to claim much more for dialogic syntax. What gets left out of sentence-based analysis is the level of mapping *between* sentences. The inter-sentential mapping relation turns out to be a rich but unexplored territory for a new kind of syntax.

Dialogic syntax is not just syntax used in dialogue. Where traditional syntax treats structural relations internal to the sentence, dialogic syntax treats structural relations between otherwise independent sentences, often produced by different speakers in dialogic juxtaposition. It posits a whole new class of formal relations between signs. These relations have been invisible to traditional sentence-level syntax (which I will call *linear syntax* to distinguish it from dialogic syntax, for reasons that will become clear). I maintain that syntax as a whole has much to gain from an expansion to accommodate this new array of structural phenomena in dialogue, within the scope of syntactic theory construction.

Why speak in terms of *dialogic syntax*? The word syntax has taken on accretions of meaning in the modern era to the point that nowadays it more often denotes the linguist’s model than the linguistic phenomenon of sentence or utterance construction. Leaving aside for now the question of whether currently available models of syntax are adequate to the task, I prefer to clear the air by going back to a more innocent era when the word applied rather to the linguistic reality than to any particular claim to account for it. I draw on Charles Morris’ \{, 1938 \#2566\} well-known contrast between syntax, semantics, and pragmatics, which he defined in terms of the various relations born by signs, taken as meaningful elements in themselves. In contrast to his definition of semantics as “the relation of signs to the objects to which the signs are applicable”, and pragmatics as “the relation of signs to interpreters”, Morris defined syntax simply as “*the formal relation of signs to one another*” (emphasis added) \{, 1938 \#2566\}. Though this definition is schematic, and must be qualified and elaborated in various ways, Morris’s focus on the array of relations that intersect in the sign can serve as an unencumbered starting point for reconsidering a theoretical direction for syntax. The point is not to discard the power and sophistication of the many and diverse recent innovations in the technical apparatus for describing syntactic phenomena, but merely to suspend, provisionally as it may be, certain rigid assumptions and expectations associated with the commonest models of syntax presently available. To strip *syntax* back to a minimalist Morrisian definition is to regain the necessary freedom to frame a new conception, if necessary, of what facts a model of syntax ought to describe and how a theory might propose to explain them.

From the outset the phrase *dialogic syntax* implies a new dimension in the exploration of the formal relations of signs to signs. Dialogic syntax proposes to recognize a new range of phenomena as inherently syntactic, expanding the traditional purview to encompass relations
that cross the boundary between two speakers. Specifically, dialogic syntax encompasses a formal relation of mapping between a given structure produced by one speaker and a (partially) parallel structure produced by another speaker. More often than not this structure-mapping relation obtains across separate and distinct sentences which the traditional norms of modern syntax would treat as syntactically independent of, and even semantically unrelated to, each other. But there is good reason to recognize the inter-sentential relations of diatax as an integral part of an expanded syntax.

I propose that dialogic syntax should be recognized as a branch of a more inclusive syntax, alongside its long-recognized sibling traditional syntax. Dialogic syntax is not a contender to replace traditional sentence-level syntax, however appealing such a claim might appear. Rather, the kind of syntax done within the sentence must remain an independent branch, because the phenomena it treats are so different. For clarity I will call the sentence-based domain linear syntax. Linear syntax defines the sequential structure of the clause as well as its hierarchical structure to an extent. The structures defined by linear syntax may then be mapped onto each other by dialogic syntax. There is significant interaction between linear syntax and dialogic syntax, but the two are different enough, and independent enough, to justify separate terms. Admittedly, an expansion of the domain of syntax to include dialogic syntax alongside linear syntax is likely to be controversial. But if the two approaches are to be pursued, it is well to acknowledge from the outset that the goals of a theory of dialogic syntax are in principle partly distinct from those that typically drive traditional linear syntax.

Note that there is nothing in the concept of syntax itself to preclude such an expansion to the productions of separate speakers (with separate minds) as correlated in discourse. As early as 1946 Zellig Harris envisioned the extension of his formal techniques of morhposyntactic analysis “to sentences and sequences of utterances (whether monologs or conversations)” \{Harris, 1946 #744 @178\}. Unbeknownst to most almost anyone in his home country, Harris followed through on his promise over the next four decades, with a rigorously developed and massively exemplified syntax of discourse \{Harris, 1952 #996; 1952 #2316; Harris, 1989 #1002\} \{Harris 1982\}; see \{Putnam, 1989 #2547\}. Likewise, McCawley more recently saw no principled reason to limit syntax to single sentences:

“While the sentence is the unit on which the greatest amount of attention will be lavished in this book, I (unlike most syntacticians) take syntax to include principles constraining the combination of sentences and/or other units into larger units of discourse.” \{McCawley, 1998 #997 @9\}

\{See also Ariel, 2008 #2272\}

**From linear syntax to diatax**

*Diatax* can be understood as the system of rules, representations, and/or strategies which organize the structural relations between two or more separate and distinct utterances. Canonically, these utterances represent clauses, sentences, or other syntactic structures produced by different speakers, each of which is characterized by its own integral structure. The individual structures are of the kind recognized by traditional linear syntax (i.e. sequential and hierarchical structure), but the mapping between them is not. This is the domain of diatax. The term is derived from *dia-* ‘across’ plus *–tax* ‘arrange’. On one level, *diatax* can be used more or less interchangeably with *dialogic syntax*, serving as a compact alternative to it. Formally speaking, *diatax* as a single word is parallel to (and can be compared with) the term *syntax*, where *dialogic syntax* as a phrase is more parallel to *linear*
syntax. On another level, however, diatax serves to effectively connote the structural side of dialogic syntax, emphasizing the dimension of formal mapping relations over the functional and semantic dimensions of dialogicality.

Diatax introduces a new structural relation which is neither sequence nor hierarchy, but mapping. Diatax maps structural elements in one utterance onto locally equivalent structural elements in another utterance. The individual elements which are thus set into correspondence will often be relatable by processes of substitution within equivalence classes in the sense of Harris {Harris, 1946 #744; Harris, 1952 #996}. But diatax is not a potential substitution in the language system, but an actual relation among tokens in language use. Nor is diatax a matter of individual substitutable elements, but of the mapping of a whole array of such relations. As a first approximation imagine two sentences, similar but not identical, uttered by two different speakers (e.g. example (1) above). Draw a representation of the internal structure of each sentence in a (separate) tree (or whatever syntactic representation one prefers for such things); so far this is traditional linear syntax. Now add dotted lines connecting the equivalent portions of the two trees: the total array of dotted lines defines the diatactic relationship.

Why should we take note of such parallelisms in discourse, which cross the boundary between seemingly independent sentences? Sentences so related are not in fact independent, and as a result diatax has consequences for the formal distribution of linguistic elements. Thus a representation of diatactic relations between utterances is a necessary prerequisite to a full theory of syntax. In addition, diatax affects the derivation of meaning in contexts of dialogic language use (see below). Diatax has an essential role to play in semantics, and specifically in linguistic pragmatics.

**Dialogic syntax—or pragmatics?**

Challenges to the term dialogic syntax arise from another quarter as well. Functional linguists may ask why a phenomenon in which language users create and manipulate resonances, with consequences for semantics, pragmatics, and interaction, should be tagged with the label syntax. For many the word syntax has become unavoidably linked to an approach to language that deliberately strips it of its meaning. But as Roman Jakobson has said, “Grammar without meaning is meaningless” {Jakobson, 1990 #2565 @332}. If we can recapture Morris’s {, 1938 #2566} vision of syntax as the formal relation of sign to signs, where the signs in question are bearers of meaning, we should not be afraid of a theory that seeks to re-unite formal relations with meaningful consequences. Central to the theory of dialogic syntax is a conception of syntactic structure as formally embodied in utterances which are fully invested with meaning at all levels. Syntax represents a certain abstraction away from this rich domain of embodied meanings. As Sapir said,

[The linguist derives] an analysis of complex patterns [only by abstracting away] from the concrete actions [of speech]. Thus English is a hierarchy of simple patterns abstracted from concrete situations which grow in complexity. Patterns are abstracted from an event; they are not a record of an event. The event [itself, the actual situation, is the meeting of many patterns, [not only the one you select for attention in your process of analysis.] {Sapir, 1994 #442 @54}

It is important to recognize that the formal relationship that dialogic syntax posits is one between signs that are fully invested with meaning. It is only fully fledged utterances in
discourse, with all their specificity of realization in both the formal (phonetic-prosodic and morphosyntactic) and semantic-pragmatic levels simultaneously present, that participate in the diatactic relationship. Dialogic syntax does not confer primacy on strings or configurations of abstract meaningless symbols, whose instantiations in meaningful words are imagined to arise only later and secondarily as specifications. Rather, abstraction works the other way around, from the fully implemented utterance to the generalization that makes dialogic coordination possible. We are interested in abstractions, but only real abstractions, that is, those that are justified and even made necessary by the confrontation of one particular with another.

**Is dialogic syntax dialogic?**

The claim is, of course, that dialogic syntax is not only syntax but dialogic as well. Dialogicality defines a rich territory of meaning at all levels, including semantic and pragmatic relations within discourse and interaction, and even extending out to prior texts (Bakhtin, 1981 [1934] #783; Voloshinov, 1929/1973 #454) and the larger fields of cultural resonance (Du Bois, 2007 #1372).

**Giving back: From dialogic syntax to linear syntax**

How do we find evidence for linguistic structure? This question matters not only to the linguist seeking to describe the grammar of a given language or to justify a particular structural analysis, but to speakers themselves, especially as they engage in learning their language. Learning new structural information about one's language implicates most obviously children but also, to an extent, all language users throughout their lives.

There is one particular context of language use that stands out as maximizing the availability of structural information about the language in question. When speakers engage with each other in dialogic interaction, it happens that one speaker's utterance may become the basis for the next speaker's utterance. Words and structures from the first utterance are reused in the production of the second. Beyond the two successive utterances, each with its own internal syntactic structure, a third factor enters: the mapping relation between them.

Because information about language structure is not uniformly distributed across all contexts of language use, language learners stand to benefit from focusing special attention on any dense concentrations of linguistic information, assuming these can be reliably recognized as such. To the extent that diagraphs constitute a particularly dense region of information about linguistic structure at all levels, cues identifying diagraphs attain considerable importance. While the full process of diagraph identification remains to be established, among the presumable cues are resonance in lexicon, reference, grammar, and prosody, as well as various elements indexing contrast (lexical, pragmatic, prosodic). And, crucially, at the interactional level, the social differentiation of dialogic agents engaged in turn-taking plays a role, since the task of differentiating which structure is to be mapped to which is facilitated by the social iconicity of each structure's different origins: produced by different voice, from a different person, expressing a different stance.
Some possible objections

As any new theory is introduced, it is natural if some objections arise, at least to the point that clarifications are called for. Among responses to dialogic syntax, various issues have been raised, of which the most urgent (and interesting) to consider mainly concern the seemingly unconstrained nature of the theory. If speakers can create novel resonance out of nothing, almost—or at least out of the mere juxtaposition of existing linguistic elements—aren’t we in the position of admitting any pair of adjacent utterances as examples of dialogic syntax? On another level, we may ask whether the appearance of resonance is merely the predictable consequence of topic continuity in discourse. And finally, we may wonder whether there is any to subject the vague claims of dialogic syntax to verification through quantification.

In the following two sections, I will address these concerns in order. First, I ask whether there are any limits to resonance (hint: there are). Second, I consider whether the recurrence of linguistic elements is simply a by-product of two people talking about the same thing, and thus being forced, in effect, to use the same words. And third, I briefly discuss the vexed problem of how to measure resonance.

Limits: Low resonance

Is there no limit to resonance? If not, this would seem to be a problem for dialogic syntax, leading analysts to indiscriminately see resonance everywhere, regardless of the merits of the case. Dialogic syntax claims that, other things being equal and under certain conditions, speakers will prefer to maximize resonance. The problem comes when analysts purport to see resonance everywhere, thus seemingly confirming the proposition they hope to establish. But we need to know whether we can find convincing ways to recognize not only when resonance is present, but when it is absent. Otherwise we are in danger of assuming what we wish to show.

The flip side of the speaker’s ostensible imperative to maximize resonance is this: Not all juxtapositions resonate. It is simply not the case that any two utterances placed side by side will show a convincing degree of resonance. It is instructive to consider cases where resonance is absent or only minimally present, for two reasons. First, the existence of non-resonant (or low-resonant) juxtapositions makes it clear that resonance is contingent: it is a consequence that must be achieved, not something that automatically results from the juxtaposition of any two utterances. Second, such negative examples can help clarify what criteria must be met before we can positively conclude that resonance has occurred.

Before we begin, it should be clear that locating a perfect example of non-resonance is a bit like proving a negative, which is in principle impossible. For this reason, it will be better to focus on low resonance, i.e. cases in which there is so little resonance that the issue of resonance is non-salient to speakers, and unrewarding to analysts. Consider, for example, the following contiguous extract from a conversation between father and daughter (among others):

(42) *(Doesn’t Work in This Household SBC019: 199.109-202.368)*

1 MELISSA; And so Mom told me never ever to ask,
2 FRANK; Maybe [I’ll have tea].
3 MELISSA; [anything about that a]gain.
Here, *maybe I'll have tea* has little that specifically aligns it with the adjacent utterances:

(43) ??(diagraph)

1,3 MELISSA: and so Mom told me never ever to ask |anything about that again ,  
2 FRANK: maybe I 'll have tea .

No lexical items appear identically across the two speakers. Although the pronouns *I* and *me* partially overlap in their semantic features (sharing 'first person singular'), such is common enough that isolated matches of this sort might be found in two utterances chosen at random. In terms of structure, again there is little specific to urge linking the two utterances. It is only at the level of broad generalities -- such banalities as that both utterances contain verbs, subjects, and clauses -- that one could try to invoke commonalities, and yet by virtue of their pervasiveness these would nevertheless not convincingly preclude chance co-occurrence.

A similar lack of specific resonance can be seen in the following contiguous extract from a conversation which happens to veer between philosophical ruminations about the environment and preparations for dinner:

(44) (*Conceptual Pesticides* SBC003: 178.21-185.46)

1 ROY: Pesticides of the mind.  
2 (4.3)  
3 MARILYN: <,%> °What should I fry this fish in°</%>.

The long pause (4.3 seconds) between the two speakers’ utterances already gives fair warning that the connection between the words may be a loose one, and indeed that seems to be the case. One can try to “force” a diagraph, but the effort is unrewarding, and presumably misplaced:

(45) ??(diagraph)

1 ROY; pesticides of the mind .  
3 MARILYN; what should I fry this fish in .

There is little to offer here except a match of determiners (*the : this*) and two words (*mind : fish*) whose relation reveals little more than that both are nouns. These commonplace “matches” seem trivial, and should count as little in the face of what else doesn’t match.

When markedly low resonance does occur, it is often in a context of discourse topic shift, such as between here-and-now activity talk and displaced narration or exposition. (And even utterances as splendidly disconnected as these are from each other may boast cohesive links to other, possibly non-adjacent, portions of the discourse, as a more extensive extract would show; cf. {Du Bois, 2000 #296}.)

But topic shift need not take place for low resonance to occur. Conversely, topic continuity does not guarantee resonance. In the following conversational excerpt, even though both utterances relate to the ongoing discourse topic (an upcoming travelogue on Nepal), there is little resonance:


1 KEN: .. Too bad you can’t ^make @it.  
2 (0.6)  
3 LENORE: (TSK) Who ^else do you know that’s been there besides .. what’s-her-name.
The only word in common is the pervasive pronoun *you*, hardly diagnostic in itself. Structurally, there is not much in the way of distinctive parallels, only unsuggestive generalities. Fishing for links, one could propose that both express the idea of travel to a place: *make it* (to the travelogue) and *been there* (to Nepal). But what is one to make of this, in the face of so many words and structures that do not resonate?

In some cases further dialogic context can help resolve uncertainty about whether significant resonance is present. Consider the following conversational extract:

(47) (*Vet Morning* SBC018: 672.550-674.542)

1 KRISTEN; .. I’ll be right back.
2 MARCIA; Could it be aborting?

Limiting our consideration for the moment to just these two (contiguous) lines from a conversation among workers in a veterinary office, we could speculate whether there is resonance, offering as candidates perhaps a few meager commonalities, such as the predicative be:

(48) ??(diagraph)

1 KRISTEN; I’ll be right back.
2 MARCIA; could it be aborting?

But whatever the merits of this paltry resonance, it pales in comparison with other dialogic juxtapositions nearby:

(49) (*Vet Morning* SBC018: 672.550-677.090)

1 KRISTEN; .. I’ll be right back.
2 MARCIA; Could it be aborting?
3 (0.6)
4 LINDSEY; Yeah, .. could be.
5 (0.3)
6 7 KRISTEN; Who’s aborting?

Obviously the question *could it be aborting?* finds stronger parallels in what follows it than in what preceded it:

(50) (diagraph)

2 MARCIA; could it be aborting?
5 LINDSEY; could be.
7 KRISTEN; who’s aborting?

Moreover, the evidence of K’s clueless question (*who’s aborting?*) suggests that previously she was not even attending to the conversation between L and M, and had not been fully aware of what L and M were talking about. (Examination of still further context would reveal that K’s *I’ll be right back* was part of a separate exchange altogether, so its superficial parallels are unlikely to signal any substantial dialogic engagement.)

The cases we have seen so far fall fairly neatly into the high resonance or low resonance categories. But in many cases the decision is not so clear:
(51) (A Tree’s Life SBC007: 1148.91-1152.48)
1 MARY: What you got in mind.
2 (0.6)
3 ALICE: I need to get caught up on my work.

This example includes some resonance mediated by co-reference, as both you and I refer to Alice. But this kind of resonance can occur even when the rest of the utterance exhibits relatively low resonance:

(52) (diagraph)
1 MARY: what you got in mind.
3 ALICE: I need to get caught up on my work.

There is the mapping of got : get, which evident counts as a lexical and a phonological resonance. But the two verb forms have different meanings and grammatical functions, raising doubts about how much they contribute to significant overall resonance for the two strands. Coming up with ways to evaluate the degree of resonance in such marginal cases will be an important task for dialogic syntax.

We have seen several cases of low resonance attributable at least partly to an abrupt change of topic. But even when there is a direct dialogic engagement and a close topical connection between two juxtaposed utterances, there may be little or no overt structural resonance. This is true, for example, of a common way of answering questions:

(53) (A Book about Death SBC005: 869.01-872.81)
PAMELA; Is that redundant?
DARRYL; Yes.

When a speaker answers a question with a simple yes or no, the implicit anaphoric incorporation of the prior utterance into the assertion achieved by the response {Tesnière, 1959 #461; Morgan, 1973 #1353; McCawley, 1998 #997} represents a dialogic engagement at the pragmatic level, yet there is no significant structural resonance at the syntactic level. The illocutionary force of such pragmatic engagement may vary with the illocutionary force of the question it responds to, as can seen in following example:

(54) (Tell the Jury That SBC008: 1376.94-1380.89)
1 REBECCA; Have you read through your statement recently?
2 RICKIE; N:o.
3 REBECCA; Do you wanna read through it?
4 RICKIE; Yeah.
5 REBECCA; (H) Okay.

Here, no answers an information question, while yeah accepts an invitation, as confirmed by the okay representing acceptance of the obligation. The force of each of these one-word utterances is matched to that of the utterance it responds to. Since each is anaphorically determined in respect of its dialogic sequencing, an aspect of Morris’s “formal relation of signs to one another” {, 1938 #2566}, at the most general level we can speak of dialogic syntax here. And yet in these one-word (and indeed monomorphemic) utterances there can be no internal analytical articulation, and hence no structural resonance.

To be sure, not all yes-answer utterances are devoid of structural resonance with the
questions they answer.

(55) (*This Retirement Bit* SBC011: 11.60-14.30)
1  ANGELA; Well she’s begun to listen.
2  DORIS; Ye:s she has.

Here the *yes* is accompanied by a clause, partially reduced, whose parallel with its predecessor increases the overt structural resonance:

(56) (diagraph)
1  ANGELA; well she ’s begun to listen .
2  DORIS; yes she has .

We can contrast this with the following, which shows that when a speaker wants to resonate, they can do a lot more than produce a *yes-no* response:

(57) (*Deadly Diseases* SBC015: 670.595-673.270)
1  JOANNE; Does ^George take any of this stuff?
2  LENORE; ^He won’t take any of this stuff.

From purely a referential point of view, the same semantic meaning could have been conveyed with a simple one-word utterance: *No*. Instead, the speaker chooses to respond with lots of resonance:

(58) (diagraph)
1  JOANNE; does ^George take any of this stuff ?
2  LENORE; ^he won’t take any of this stuff .

Beyond the choice to resonate, the speaker also introduces a *stance differential* here, signaled not only by the negation with a reduced ’nt but also by the choice of the modal auxiliary *will* in contrast to *do* (*does : won’t*).

In sum, not everything resonates, and when resonance does occur it may be minimal, to the point that it can probably be effectively ignored—both by analysts and participants. But it is important to emphasize that this in no ways undermines the argument for dialogic syntax. Dialogic syntax makes no claim for indiscriminate relations between every pair of adjacent utterances.

That we can recognize the absence of resonance lends meaning to the presence of resonance. By contrasting the two conditions we can test and justify our analytical criteria for detecting resonance, and can begin to assess the consequences of resonance relative to its absence. We have seen that, not surprisingly, when the discourse topic changes resonance may be absent. We have also seen contexts where a choice apparently exists between high and low resonance, as when a *yes-no* question may be answered with either a plain *yes* or with a full or partially reduced clause. In cases where there is a choice between resonance and non-resonance which is available to speakers, it will be interesting to pursue the significance of the selection between them.
Topicality and the content confound

One methodological objection that may be offered to a claim of dialogic resonance for a given stretch of discourse is that the seemingly intentional verbal resonances may have simply been imposed upon the speakers by factors not entirely under their control, such as the current topic (the subject matter under discussion) and the limited set of words that the language provides for expressing this content. When two speakers engaged in conversation use the same words, isn’t that just because they’re talking about the same topic? It seems natural that the mutual interest in creating coherence in conversation should tend to produce topic continuity, which naturally motivates a continuous orientation to the same semantic content. This in turn leads co-participants to continually draw from the same semantic domain and, not surprisingly, to choose many of the same words. We may call this the content confound.

How can we distinguish between shared forms due to the content remaining constant and those due to the resonance principle? The problem of the content confound is a subtle one, and requires careful treatment. On the view implied by the content confound, the reuse of the same linguistic forms by different speakers is not necessarily evidence of mutual influence, but instead constitutes a kind of independent convergence of verbalization choices, as each speaker in turn is constrained by the common subject matter, due to the topic continuity that characterizes much of natural discourse. A further necessary ingredient of this line of argument is that the language supposedly provides just one way, or one salient way, to encode the content at hand. On this line of reasoning, if speakers use similar language, it’s because that’s the way to talk about what they were talking about. There’s simply no other way to verbalize the content. Undoubtedly such decisive influences do occur, especially in certain specialized semantic domains.

While it is difficult to argue against this contention, there is reason to doubt that it applies decisively except in discourse on fairly specialized topics. As a first approximation, we can get a sense of how likely it is that two speakers will independently choose the same word at about the same time in a stretch of discourse by calculating how rare the word is over a corpus of discourse. If a word occurs only a handful of times in a sufficiently large corpus, and yet twice appears within the same brief stretch of discourse, we may reasonably conclude that the two verbalization events are not independent. That is, we may have evidence of influence of one speaker on the other (priming). And we may wish incorporate this verbal convergence into a diatactic analysis of the stretch of discourse in question, representing a coordination across the two speakers’ utterances as a resonance or mapping.

We should be careful about assuming that speakers are so fully under the sway of the topics they talk about. (It may even be possible to turn things around, and in place of the content confound to interpret this rather as content mediation, acting as a kind of support for distributed cognition {Hutchins, 1995 #797; 1997 #1003}. More on this later.) Consider the fact that two different speakers use the phrase his liver in the following conversational excerpt. (The first few lines are repeated from the excerpt discussed above in (57).)

(59) (Deadly Diseases SBC015: 670.595-686.295)
1 JOANNE; Does ‘George `take any of this `stuff?
2 LENORE; ‘He won`t take any of [this `stuff].
3 JOANNE; [(H) But] `he`s as `healthy as an `ox,
4 [that `guy.
5 (0.8)
6 (H) That `guy is <MARCATO> `heal[thy as an] `o:x </MARCATO>.
LENORE; [His ^#liver],
except for his ^liver.
(0.9)
JOANNE; ^Yeah,
but I’m ^saying,
is like,
(%): you know,
as `much as he’s ^abused his ^liver,
and %a- all other .. other `things in his ^life,
he’s ^still as `healthy as an ^ox.

Is the linguistic convergence here attributable to chance, or to the speakers’ active production of dialogic resonance? Or, more problematically, is it due to the content confound? Chance can be rather easily ruled out, given the relatively low frequency of the phrase his liver in the corpus overall. Consider the three intonation units containing his liver:

(60) (diagraph)

LENORE; his ^liver ,
LENORE; except for his ^liver .
JOANNE; as much as he ’s ^abused his ^liver ,

This triple convergence in close succession of a relatively infrequent phrase is almost certainly not due to chance (though how to characterize the motivation for the co-occurrence is not necessarily obvious). Again, consider another part of the discourse in which the term comes up once again. Lenore is showing Ken and Joanne various vitamin and mineral tablets she has, and Ken ask her what they are.

(61) (Deadly Diseases SBC015: 546.020-552.450)
LENORE; .. This is uh[:],
KEN; [ A]-F Beta [:Food]? 
LENORE; [:Liver].
This is liver,
(2.4)
KEN; How many [different liver] things [,do you ha:ve].

The diagraph shows mostly simple lexical resonance for liver:

(62) (diagraph)
LENORE; this is liver
LENORE; this is liver
KEN; how many different liver things do you have

Although the chances of accidental independent convergence on liver here may be virtually ruled out, the more serious possibility remains that the linguistic convergence is content-driven. The current topic is liver (here representing a nutritional stuff rather than an organ), and there is no other common word for referring to it than liver. Hence, given that the two speakers are jointly committed to talking about a common content, each confronted with the need to code the content may independently arrive at the same word.
The content confound hypothesis conceives speakers as helpless in two dimensions: the subject matter at hand constrains what they talk about, and the language, via the encoding conventions built into it, constrains how they verbalize any given aspect of the subject matter. There is some justification for both of these propositions (for the latter, see {Slobin, 1996 #543}). Yet paradoxically, by neglecting the vast amount of freedom that is in principle available to speakers in perspectivization {Fillmore, 1977 #113} or conceptualization {Langacker, 1987 #98}, this scenario underestimates the extent to which speakers may choose to eschew that freedom in favor of maximizing dialogic resonance. In the end, it is unlikely that any content constraint could be formulated to fully account for the facts of local dialogic convergence. Rather, it is dialogic syntax that will account for the broadest and most generalizable patterns, with only a subsidiary and local role to be played by content constraints.

But we could turn the tables here, and approach the content question from the opposite direction. Rather than trying to root out the supposedly confounding dimension of content continuity, why not embrace content mediation as an aspect of distributed cognition? On this view, content mediation supports speakers in their attempts to produce dialogicality and enhance resonance, by providing an additional, external support for coordinating engagement. If liver is the topic of discussion between discourse participants and the word liver is the most salient way to refer to the liver, speakers can take advantage of this contextual constraint to increase their chances of producing utterances which are simultaneously relevant and resonant. The relative iconicity of form-meaning pairings within a given semantic domain helps to ensure that stretches of discourse in which speakers jointly elaborate on a unified domain of content are likely to contain dialogic resonances, with or without specific resonant intent. It would be surprising if speakers did not take advantage of such opportunities to enhance the level of dialogic resonance.

But is resonance to be reduced to a by-product of speakers’ tendency to sustain interest in a given content over a period of topic continuity, plus their language’s form-meaning iconicity within the corresponding semantic domain? This would seem to accord inanimate objects an exaggerated power to determine what we speak about and how we say it. In many semantic domains we can count on language to provide a rich array of alternative perspectivizations and construals {Fillmore, 1977 #113; Langacker, 1987 #98; MacLaury, 1995 #1704}. Given such a set of choices in the language, a second speaker’s choice to select a form that resonates with the first’s could still be attributed to a dialogic agenda, in proportion to the range of alternatives relevantly available. Indeed, in some cases it becomes quite clear that resonance for its own sake has become a goal that overrides any constraints imposed by the mundane facts of the content domain. In such cases we may see language taking off on its own, as it were, as the speaker exploits some opportunities to make resonance despite the realities of the subject matter at hand. Consider the discourse excerpt cited above in which use of the word liver was seemingly forced by the lack of an alternative way to verbalize the content ‘liver’. If we take a more detailed look, however, at how the conversation proceeded beyond the point already cited, we begin to see a different picture:

(63) (Deadly Diseases SBC015: 546.020-559.910)

1 LENORE; .. This is uh[.]
2 KEN; [ A]-F Beta [ Food]?
3 LENORE; [:Liver].
4 This is liver,
5 (2.4)
6 KEN; How many [different liver] things [:do you ha:ve].
The passage starts out with a down-to-earth focus on L’s collection of dietary supplement pills, which are visible in the immediate situational context. L labels one pill as containing liver, and K follows up by asking how many liver things she has (referring to liver-containing pills). But L pretends to understand this as asking how many liver organs she has, whereupon she laughingly responds that she has one liver.

The resonance of linguistic forms in this case cannot be treated as derivative of meanings determined by the content. If anything, it is the other way around here: It is the resonance of forms that drives the meanings. L’s utterance of I have one liver opportunistically exploits the ambiguity potential of how many different liver things do you have, deliberately seizing on a meaning unlikely to have been intended by the original author of the sentence. From another perspective, it seems highly unlikely that L would have uttered the sentence I have one liver on her own, based solely on the topic at hand plus her own knowledge of it. The very motivation for the utterance is dialogic in origin. Meanwhile, J pursues another line of humor, pretending that L is on a waiting list for a liver transplant. Again, it is difficult to see this utterance as determined by the objective reality of the dietary supplements originally being discussed. It has more to do with what Sapir called form play, the playful exploitation of opportunities triggered by the contextual availability of certain linguistic and conceptual materials on the conversational table, so as to create new kinds of resonance with one’s dialogic partners. In such contexts, form drives meaning as much as meaning drives form.

In sum, there are five tokens of the word liver in this sequence, which we present here in a loose configuration (not a real diagraph) to display the lexical resonance:

(64) (diagraph)

(65) (quasi-diagraph)
The uses of *liver* here point to at least two rather different kinds of explanation. In some cases the choice of form is driven by the meaning to be expressed. For instance, in the absence of common alternatives to *liver* within the lexical inventory of the language, the nature of the pills under discussion could be said to more or less determine the choice of this word. In contrast, the references to having *one liver* and to a waiting list for a *liver transplant* are presumably more driven by the utterances already uttered by other speakers than by any content in the situation or in the speaker’s autonomous knowledge. And by the principle of Content Mediation, even literal on-topic contributions like K’s *how many different liver things do you have* can be seen as participating in the production of dialogic resonance, whatever their content-based motivations may be.

Finding a way to definitively distinguish between dialogic resonance and the content confound in naturally occurring discourse is not going to be easy. At best the discrimination will always be subject to uncertainty, given the difficulty of specifying just what the subject matter at hand is at any given moment without circular appeal to the language used. And even if the content can be pinned down, a difficult linguistic question will remain as to how narrowly the language constrains the verbalization of the given content domain. But roughly, what we are after is a way to compare the likelihood of two speakers independently selecting a given linguistic form within two nearby utterances, with the likelihood of influence between speakers (priming). The existence of the content confound will complicate this calculation immensely, whenever there is a well-defined subject matter at hand that channels both speakers into a limited set of options for verbalization. In other cases the role of the content in shaping the discourse may be minimal, allowing almost any case of convergence to be attributed to influence across speakers. Due to the statistical nature of the question, for any particular case of cross-speaker convergence of linguistic form we may never be able to say with certainty that it is due to inter-speaker effects of priming. While we cannot prove priming in any particular case, we can amass evidence to show that it is plausible for the body of data as a whole, by showing quantities of parallel cases too rich in resonance to be attributable to chance or the content confound.

**Is resonance measurable?**

This paper, by its introductory nature, has necessarily focused on the analysis of carefully selected examples, each exhibiting what most observers might agree to be the clear presence of resonance—or its clear absence, as the case may be. But in surveying unrestricted data across a conversational corpus (such as the Santa Barbara Corpus), it soon becomes evident that not all cases are so clear-cut. (The potential for ambiguity is especially clear in cases of low resonance, as discussed above.) While it is perhaps justified to present straightforward examples initially, in order to lay out the main conceptual issues, in the long run it becomes crucial to extend the exploration more broadly to unrestricted data. Here it is inevitable that there will be intermediate cases. The theory of resonance has to be able to deal with variability. Moreover, there is a need for a system that allows the analyst to reliably determine different degrees of resonance, as measured between any two candidate units of discourse.

Consider the factor of distance, e.g. as indicated by the number of intervening lines between two elements that are proposed as resonating. The following is excerpted from the first part of example (59) above, repeated here for convenience:
(66) (Deadly Diseases SBC015: 672.895-678.000)

3   JOANNE;  (H) But `he’s as ^healthy as an `ox,
4           that `guy.
5           (0.8)
6   (H) That `guy is <MARCATO> ^healthy as an ^o:x </MARCATO>.

Joanne in line 6 is apparently resonating with her own previous utterance in lines 3-4. (This may be considered a straightforward example of self-resonance, recognized within dialogic syntax as a sub-type of dialogic resonance.) The diagraph representation brings out the resonance:

(67) (diagraph)

3   JOANNE;  but `he’s as ^healthy as an `ox ,
4   JOANNE;  that `guy.
6   JOANNE;  that `guy is ^healthy as an ^ox .

Here it seems straightforward to suppose that between the first and second occurrence of healthy as an ox (in lines 3 and 6, respectively), the distance is not so great as to exhaust the speaker’s short-term memory. We might hope to safely conclude that when the second instance comes around, the resonance will be recognized by all participants. But what if the elapsed distance is not 3 lines (i.e. 3 intonation units), but 10? The next diagraph, which represents a slightly larger portion of example (59), shows a third instance of healthy as an ox in line 16:

(68) (diagraph)

3   JOANNE;  but `he’s as ^healthy as an `ox ,
4   JOANNE;  that `guy.
6   JOANNE;  that `guy is ^healthy as an ^ox .
16  JOANNE;  he’s ^still as `healthy as an ^ox .

The distance is substantially greater, raising questions as to whether resonance is strong enough to reach across the gap. Yet it seems likely that when Joanne says healthy as an ox in line 16 the participants would still recall that she had said it before. It is important to note that among the putative affinities here is the recurrence of the idiomatic (and relatively infrequent) phrase healthy as an ox, not to mention the framing resonance of subject-plus-copula (he’s).

To turn the question the other way around: In order to make a case for the absence of resonance, it would be necessary to argue that the participants, despite being exposed to lines 3, 4, 6, and 16, nevertheless perceive no affinity between healthy as an ox in line 16 and the earlier instance in lines 3-6. Recall that resonance has been defined as the activation of affinities across utterances. The criterion of this activation must be the participants’ active recognition of it. One consequence of defining resonance in this way is the following: Unless it is claimed that participants in a conversation fail to perceive (potential) affinities, it follows by definition that resonance is present.²

But how far should this argument be taken? What if the distance separating two utterances is not ten lines but ten minutes, or ten days? Ultimately it becomes desirable to find some means of measuring resonance, hopefully in terms of general principles. Ultimately the goal is to quantify resonance: to be able to say with confidence that these two utterances have more resonance than those two, or this diagraph than that. It is possible to approach this problem empirically through statistical approaches to corpus data, or psycholinguistic
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experiments. Either way, it must be based on a clear conceptualization of what it is to measure dialogic resonance. This is likely to call for a very sophisticated calculation, derivable from comparison of any two candidate units in discourse (i.e. “strands”, including, but not limited to, adjacent intonation units). The resonance function will be complex, as it must take into account at least the following: how many words, and what proportion of the total words in the units, match across the two units; what proportion of the matching words show an identical match vs. a partial match (i.e. with inflectional or other variation); how many strands (units) are involved in the resonance; how much distance separates the candidate strands (whether the distance is measured in elapsed seconds, intervening words, clauses, intonation units, or some combination of these); how many paradigmatic alternatives in the relevant semantic domain are available to choose from for each word; how distinctive the resonating elements are, e.g. idiomatic phrasal combinations of words with low frequency (healthy as an ox); and many more factors. This is a large and interesting topic, whose treatment is beyond the scope of this article.

Diagraphing abstract structure

One of the challenges in seeking a deeper understanding of dialogic syntax is to get a better picture of what diographs are, how they are structured, and how they are put to use by speakers in the course of constructing a dialogic engagement. The problem of the diagraph can in turn be framed as a problem of the diagraphic representation. How can we develop a structural notation capable of doing justice to the truly impressive complexity and sophistication of speakers’ knowledge and use of diatactic relations? To this challenge we may add one more criterion: that the representation should remain accessible to the reader. Up to this point, the informal diagraph representations so far presented have emphasized accessibility over completeness and precision. They have also counted on the reader’s ability and willingness to use their intuitions about linguistic structure to fill in some details about the mapping relations that may only be implicit in an informal diagraph. Though useful as far as they go, there should no illusions that they adequately represent resonance and diatactic mapping with the richness, complexity, subtlety and adaptability that speakers themselves control, as demonstrated by their mastery in exploiting the structures and practices that create of dialogic syntax. It is legitimate for most purposes, to be sure, to keep diagraph representations simple and even simplistic. For example, limiting them to two dimensions makes for convenience of presentation on paper and screen, and clarity to the reader. But assuming that the speakers’ actual diagraph representations (i.e. mental representations of diatactic relations) are much richer than this, it is useful to contemplate how we might try to capture some of this complexity. This is what we propose to attempt in this section, albeit at the cost placing a greater demand on the reader. (Readers who are not interested in the problem of developing a quasi-formal notation for dialogic syntax may prefer to skip ahead to the next section.)

Consider the boldfaced lines in the following discourse excerpt:

(69) (Conceptual Pesticides SBC003: 376.04-384.85)
  1   MARILYN; [God damn it, 
  2        what'd you do. 
  3          (0.4) 
  4   PETE; [son of a bitch. 
  5        You @son @of @a @bitch. 
  6   MARILYN; [][@ @] @ @
7 ROY; I threw a [green pepper down your blouse].
8 MARILYN; [You threw a green pepper down] my shirt.

We can diagraph these informally, using the same format as in the previously cited diagraphs:

(70) (diagraph)
7 ROY; I threw a green pepper down your blouse.
8 MARILYN; you threw a green pepper down my shirt.

This representation of a diagraph has several notable features. Speaker labels are indicated, reflecting the importance of dialogicality per se but also because the presence of different voices aids in differentiating the strands from each other, a necessary prerequisite if they are to be mapped onto each other. Second, the sequence of words given by linear syntax is preserved. Third, each strand appears on a separate line, which facilitates mapping (which is aided in turn by the fact that the optimal unit for dialogic syntax is the intonation unit, and intonation units are written each on a separate line). Finally, and perhaps most informatively, words that resonate (pepper:pepper, your:my, blouse:shirt) are vertically aligned (by inserting spaces as needed). The result is an informal depiction of what the speakers know about the mapping relation here.

But we can go beyond this to present a more sophisticated analysis of the grammatical structure. In the following display, a rough syntactic parse (with node labels loosely based on the Penn Treebank conventions) given for each speaker’s utterance:

(71)

This adds information about constituent structure and phrasal categories. Despite the chart format, this notation contains basically the same information as the more familiar tree diagram. I should make clear that I am not trying to argue for any particular type of syntactic analysis. The present notation is used for convenience as much as anything else. I merely want to show how a richer representation of syntactic information might be incorporated into a model capable of showing mapping across independent sentences by different speakers. The reader is free to imagine whatever alternative analysis of the linear syntax seems more congenial.

Note that the chart format allows us to maintain the vertical alignment of words, so that by carefully examining the chart one can detect that, for example, blouse is mapped to shirt, being directly above it. But to more readily detect the lexical mappings, one might wish to see the words closer together. This is achieved by inverting one of the two trees, in what
we might call a mirror diagraph:

\[
\begin{array}{c|c|c|c}
\hline
& S & \text{NP} & \text{VP} \\
\hline
\hline
& \text{VBD} & \text{NP} & \text{IN} \\
6 & \text{R;} & \text{NP} & \text{DP} \\
& \text{PRP} & \text{DT} & \text{JJ} \\
& \text{I} & \text{threw} & \text{a green pepper} \\
& \text{IN} & \text{down} & \text{your blouse} \\
\hline
7 & \text{M;} & \text{NP} & \text{PP} \\
& \text{PRP} & \text{DT} & \text{JJ} \\
& \text{You} & \text{threw} & \text{a green pepper} \\
& \text{IN} & \text{down} & \text{my shirt} \\
\hline
\end{array}
\]

To make the lexical mappings explicit, we can add lines joining the resonant words:

\[
\begin{array}{c|c|c|c}
\hline
& S & \text{NP} & \text{VP} \\
\hline
\hline
& \text{VBD} & \text{NP} & \text{IN} \\
6 & \text{R;} & \text{NP} & \text{DP} \\
& \text{PRP} & \text{DT} & \text{JJ} \\
& \text{I} & \text{threw} & \text{a green pepper} \\
& \text{IN} & \text{down} & \text{your blouse} \\
\hline
7 & \text{M;} & \text{NP} & \text{PP} \\
& \text{PRP} & \text{DT} & \text{JJ} \\
& \text{You} & \text{threw} & \text{a green pepper} \\
& \text{IN} & \text{down} & \text{my shirt} \\
\hline
\end{array}
\]

\[
\begin{array}{c|c|c|c}
\hline
& S & \text{NP} & \text{VP} \\
\hline
\hline
& \text{VBD} & \text{NP} & \text{IN} \\
6 & \text{R;} & \text{NP} & \text{DP} \\
& \text{PRP} & \text{DT} & \text{JJ} \\
& \text{I} & \text{threw} & \text{a green pepper} \\
& \text{IN} & \text{down} & \text{your blouse} \\
\hline
7 & \text{M;} & \text{NP} & \text{PP} \\
& \text{PRP} & \text{DT} & \text{JJ} \\
& \text{You} & \text{threw} & \text{a green pepper} \\
& \text{IN} & \text{down} & \text{my shirt} \\
\hline
\end{array}
\]

Given that the two speakers’ sentences have exactly the same structure, we could even use one tree for two sets of lexical items, as follows:

\[
\begin{array}{c|c|c|c}
\hline
& S & \text{NP} & \text{VP} \\
\hline
\hline
& \text{VBD} & \text{NP} & \text{IN} \\
6 & \text{R;} & \text{NP} & \text{DP} \\
& \text{PRP} & \text{DT} & \text{JJ} \\
& \text{I} & \text{threw} & \text{a green pepper} \\
& \text{IN} & \text{down} & \text{your blouse} \\
\hline
7 & \text{M;} & \text{NP} & \text{PP} \\
& \text{PRP} & \text{DT} & \text{JJ} \\
& \text{You} & \text{threw} & \text{a green pepper} \\
& \text{IN} & \text{down} & \text{my shirt} \\
\hline
\end{array}
\]

Needless to say, most cases of dialogic syntax would not admit of using one tree for two sentences in quite this way.

Some of the words are identical across the two speakers in this diagraph. These are indicated in boldface above, but in the next version of the diagram the non-identical words are simply left out.
What remains may be called a local partial. A local partial is that portion of the structure of mapped utterances which remains locally constant (i.e. in the scope of discourse available for resonance, perhaps accessible in short-term memory). Here it includes both words (threw a green pepper down) and structure, including some structural nodes (for noun phrase, prepositional phrase, etc.). As represented, some of these structural nodes do not correspond neatly to single lexical items, and thus seem to argue for the postulation of some sort of hierarchical constituent structure. One could say that the local partial represents as much of the structure as the resonating speakers jointly used. The individual differences between their contributions remain to be filled in. The term local partial echoes the American structuralist recurrent partial {Harris, 1951 #750}. In modern terms, the structures represented are reminiscent of the so-called fragments of Data-Oriented Parsing {Bod, 1998 #796}, but differ from them in that they are highly sensitive to local discourse context. (Cf. also construction grammar {Goldberg, 2006 #1603}.)

Another representation of the diagraph would not simply take account of the fact that there is additional information to be gleaned from the dialogic mapping. For example, the first word of the diagraph is not (in this mapping) just any personal pronoun, but either I or you, represented below with set notation (curly brackets). Consider the following representation of diagraph sets:

Finally, we could imagine that participants may do a semantic feature abstraction over the diagraph sets, which we could represent as follows:
understanding of language, or even this example language use, is another matter entirely. Perhaps we have taken the formal exercise a little too far.

Still, there may be utility in examining some of the more fundamental claims about abstract syntactic structure that have emerged from the recent structuralist-generativist era. One important idea is that one sentence can be embedded within another. Consider the following case, where an embedding occurs across the course of a dialogic exchange.

(78) (*Doesn’t Work in this Household* SBC019: 107.013-111.881)

1 MELISSA; It’s ^erasable,  
2 and I am ^not marking on it.  
3 (0.7)  
4 BRETT; I don’t ^care if it’s erasable,  
5 don’t ^touch it.

The informal diagraph representation suggests how the words \textit{it’s erasable} are used twice, once alone and then as part of a larger sentence:

(79) (diagraph)  
1 MELISSA; \textit{it’s erasable},  
4 BRETT; \textit{I don’t care if it’s erasable},

But it takes a richer notation to make explicit that the words first occur as an independent main clause and then as an embedded clause the second time around. One way to do this is with a mirror diagraph:

(80)  

This captures something of what I call “real abstraction”: overt evidence in discourse that speakers seem to be mobilizing abstract syntactic knowledge (including embedding) to further their dialogic engagement with one another. Another illustration of the real abstraction involved in a “live embedding” was given above as example (15), for which the standard diagraph representation (example (16)) is repeated here:
There actually two interesting mappings of abstract structure present in this exchange: the diatactic mapping of the embeddings *I'm not smart*: *look at you being smart* and *you're stupid*: *don't call me stupid.* While exploring how to fully represent them would be instructive, it is beyond the scope of this paper. (It could be an interesting exercise for some readers.)

Dialogic syntax is ready to embrace as much of abstract structure as can be validated by speakers’ actual use of it in real time. The above efforts at representing abstract structure in the diagraph, though clearly provisional, are in line with the general goal of coming to terms with what the speakers’ precise syntactic capabilities are when it comes to deploying them spontaneously in the moment of dialogic engagement. For the most part, it is probably best to avoid the alluring trap of premature formalization. There is much that remains to be clarified regarding very basic questions about the nature of resonance and diatactic mapping. It should be clear that at this early stage the theory of dialogic syntax has no vested interest in any particular notation for syntactic structure, including the one sketched out in this section. *These preliminary efforts at representation can only hint at the complexity and sophistication of the actual speakers’ knowledge of diatax in discourse. There is much potential to further develop the representations of abstract relations in dialogic syntax, whether using notations like these that are familiar to linguists, or something entirely new.* For example, one could imagine experimenting with a 3-dimensional, color-coded, rotating structure (viewed on a computer screen), with the additional dimension of change over time to represent the gradual development of the emerging diagraph through successive turns. Such models are of course available, being used by scientists for visualization tasks such as representing complex biological molecules such as DNA, proteins, etc.

It is likely that many more experiments will be needed before a notation is arrived at that is at once psychologically real, dialogically perspicuous, notationally practicable, and accessible to analysts. Nevertheless, there is a serious need to address the issue of what speakers know about real abstractions in dialogic interaction.

**Relation to other theories**

To better assess the significance of dialogic syntax, it is useful to place it in relation to other theories, including some that appear to be closely related, even overlapping with dialogic syntax. (This is in addition to linear syntax, already discussed.) The similarities and differences of interest involve both the theories themselves, and the linguistic phenomena they target, which may attract attention from more than one perspective. The following presents a mix of theories and phenomena that are useful to consider in situating dialogic syntax. Of the many that bear some relation to dialogic syntax, the most relevant are:


**Repetition** {Keenan, 1977 #459; Tannen, 1987 #610; 1989 #456; Norrick, 1987 #1394;
Johnstone, 1994 #842}; **echo** {Sperber, 1995 #955; Wilson, 2000 #2175}; **cohesion** {Halliday, 1976 #2274; Flowerdew, 2009 #2405}; **priming** {Bock, 1986 #614; Bock, 2000 #1104; Bock, 1990 #615; Branagan, 2000 #618; Garrod, 1987 #2559; Levelt, 1982 #2560; Hare, 2000 #491; Giora, 2003 #1271; Gries, 2005 #1196}; **analogy** and **similarity** {Anttila, 1977 #2553; Itkonen, 2005 #1440; Gentner, 1983 #1001; Gentner, 1997 #778; Gentner, 1997 #779; Medin, 1993 #612}, and **contrastiveness** {Bolinger, 1961 #2567; Chafe, 1976 #130; Lambrecht, 1994 #156; Steedman, 2000 #2516}.

On another level, dialogic syntax bears a more distant but still relevant relation to **dialogicality** and **intertextuality** {Bakhtin, 1981 [1934] #783; Voloshinov, 1929/1973 #454}; **accommodation** {Giles, 1979 #1709}; **co-construction** {Goodwin, 1981 #774; Lerner, 1996 #1046; Ochs, 1979 #385}; and **distributed cognition** {Hutchins, 1995 #797; , 1995 #1822; , 1997 #1003; , 2006 #2015}.

In a related note, work that builds on or makes reference to the present framework of **dialogic syntax** is also briefly discussed in {Anward, 2003 #1072; Ariel, 2008 #2272; Joaquin, 2005 #174; Sakita, 2006 #1856; Zima, 2008 #2365}, and the closely related domain of **stance** {Du Bois, 2007 #1372; Lempert, 2008 #2345}.

In the remainder of this section I select a few of the above concepts and theories for more detailed discussion.

**Priming**

In experimental contexts, Levelt {, 1982 #2560}, Clark {Clark}, Bock and her colleagues {Bock, 1986 #614; Bock, 2000 #1104; Bock, 1990 #615}, and others {Hare, 2000 #491} have been able to demonstrate cognitive persistence of recently used syntactic structures, such as the passive construction. Clearly the phenomenon of syntactic priming, as it is known, has relevance outside the laboratory. In sociolinguistic interview contexts Weiner and Labov {Weiner, 1983 #609} showed that speakers use passive constructions more often where a passive had recently been used. In more naturalistic corpus data, Gries demonstrated that speakers tend to reuse certain marked syntactic structures, apparently the effect of syntactic priming {Gries, 2005 #1196}. In dialogic interaction, we see numerous cases where speakers appear to reuse syntax and other linguistic resources that have been used in the immediate prior context, whether by themselves or by another speaker. Viewed within an interactional frame, this raises interesting questions regarding the sharing of cognitive work, that is, making use of cognitive resources that have been made more immediately accessible by others.

But dialogic syntax cannot be reduced to priming. Priming is an automatic cognitive process which facilitates access—not just to a single item, but to many. But priming does not of itself determine which of the primed elements will actually be produced, or indeed whether anything at all will be uttered in response to the priming. If priming determined utterance outcomes, we would never get beyond parroting back to the previous speaker everything they just said—and vice versa, yielding an infinite regression.

To put things into proper perspective, it is necessary to recognize the existence of a **reproductive cycle**, distinguishing between the successive phases of (1) facilitation, (2) action, and (3) consequence. Priming facilitates, reproduction enacts, and resonance arises as a consequence of the reproductive action, as new connections are activated—and the cycle begins anew, with new priming. This is part of the story anyway—it’s a very complex topic.
Clarifying how priming, reproduction, and resonance interact in the larger processes of dialogic syntax is an important piece of work that remains to be done, but is well beyond the scope of the present work.

**Co-Construction**

It should be noted that there are other syntactic phenomena which cut across the boundary between two speakers, some of which have long been recognized. Prominent among these is the phenomenon of sentence co-construction or collaborative completion {Goodwin, 1981 #774; Lerner, 1996 #1046; Ochs, 1979 #385}. It is important to draw a distinction between diatax and co-construction, to avoid a possible confusion between phenomena that are similar, but should be kept distinct.

In a co-constructed sentence, the production by one speaker of the first words of a sentence, as yet incomplete, enables a second speaker to join in to produce the remainder of the sentence.

(82) *(Conceptual Pesticides SBC003: 1034.67-1041.32)*

1. MARILYN: (H) Actually,
2. you know,
3. **I'd love to do gray water.**
4. PETE: .. [Mhm].
5. MARILYN: **[he]re,**
6. .. **but,**
7. (0.4)
8. ROY: **It's [illegal].**
9. MARILYN: **[it's illegal].**
10. PETE: .. Really.
11. .. How rude.
12. (0.7)
13. MARILYN: Isn't that [retarded]?
14. ROY: **[Isn't that] weird?**

(83) *(Raging Bureaucracy SBC004: 1092.65-1095.07)*

1. SHARON: **Cause they didn't .. teach them** (H) &
2. CAROLYN: .. **di[ddly].**
3. SHARON: .. **[& °jack°].**

Under the co-construction model, what might otherwise be taken as two sentence fragments produced by two different speakers is instead recognized as adding up to a single collaboratively produced sentence. While this phenomenon is of undeniable interest to dialogic syntax, I wish to emphasize that dialogic syntax is not limited to such cases and does not depend on them. Dialogic syntax can establish relations even between whole, separate, and (normatively) grammatical sentences. For example, even in edited written prose diatax can be documented, where it passes without comment within the constricted norms of prescriptive grammar. (Of course, the full range of multi-vocal dialogicality may be less visible in some of the more norm-bound genres.) The structure-mapping relations characteristic of dialogic syntax are present in a far broader array of phenomena than co-
Conclusions

In the sphere of pragmatic action and linguistic interaction, dialogic syntax can draw out or bring into focus the significant relations between juxtaposed utterances. The Principle of Engagement holds that engaged forms produce engaged meanings. A small shift in phrasing that might in isolation pass unnoticed can be made to stand out starkly if it is aligned in parallel, where commonalities only heighten contrasts. Difference itself depends on commonality. The production and management of a dialogic differential is one of the major functions of dialogic syntax. A key aspect of the dialogic differential is the pragmatic differential, which articulates divergence and convergence in stance through the resources of dialogic syntax.

Existing language catalyzes the creation of new language. The complex layers of contrast, equivalence, and abstraction that mark the general grammar of any human language may have their origins in the dialogic engagement of particular utterances by particular speakers. To use language is to build language. Dialogic syntax can be conservative, precisely replicating existing structures. It can also create juxtapositions out of which may arise new relations carrying the capacity to reshape the enduring system of the language itself. The ongoing learning of dynamic patterning becomes an inextricable component of social intercourse, part of the daily practice of speakers at any age. The full human capacity for language is realized only when speakers engage with others through the articulating medium of grammar to create new meaning. We can ask whether syntax may depend for its existence on its capacity to effect creative engagement between speakers.

- dialogic syntax articulates resonance, working to systematically activate potential affinities in structure and meaning
- speakers reuse experienced structures, especially locally activated ones, at the level of word, phrase, argument structure, and clause
- dialogic syntax stands out as the context of language use maximizing the availability of structural information about the language in question: diatax is the primary locus of resonance-enhanced reciprocal contextualization.
- diatax generates maximal analytic-recombinant information
- exemplar catalysis facilitates the dynamic formation of new structures and new meanings in discourse
- because of the pervasiveness of dialogic syntax, speakers are continually exposed to new structural information about their language which motivates learning throughout their lives
- in sum, reusable syntax serves, among its various functions, a powerful structural function: it sharply delineates the relative structural differences between utterances of socially positioned conversational co-participants, iconically displaying structural convergence and differentiation through the mapping of constant and divergent linguistic elements. In this process it makes...
visible, and potentially modifies, the categories and structures of the more
general grammar that is continually being abstracted away from the grounding
context of dialogic interaction.
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Du Bois

Towards a Dialogic Syntax


This paper, and the theory it describes, have shared a long gestation, and my debt to audiences and readers is great. I have benefited richly from the questions and comments of participants in conferences and workshops at the universities of Potsdam (2008), Portsmouth, (2004), Oulu (2003), UC Berkeley (2003), Johannes Gutenberg University, Mainz (2002), UC Santa Barbara (2000), Tel Aviv (1998), Buffalo (1996), and Rice (1995), as well as at the International Pragmatics Association, Mexico City (1996); and from colloquium audiences at the Center for Advanced Studies in the Behavioral Sciences, Stanford (2006), and at the universities of Utrecht (2008), Tel Aviv (2004), Bar-Ilan (2004), Helsinki (2003), UCLA (1999), UC Santa Barbara (1998, 2006), Hebrew University, Jerusalem (1996), Zurich (1995), and Southern California (1995). I am grateful to the Fulbright Foundation for fellowship support for a year of research and teaching at Tel Aviv University (2003-2004). I thank Cornelia Ilie of Södertörn University for organizing a Fulbright lecture tour to the Swedish universities of Linköping, Södertörn, and Stockholm (2004). Special thanks are due Elise Karkkainen for her research collaboration and organizational efforts to allow me to present a 10-day workshop on stance and dialogic syntax at Oulu University (2003). For their many questions and valuable feedback I am indebted to the students in my graduate seminars at the Netherlands Graduate School of Linguistics (Utrecht, 2008), the Linguistic Society of America Summer Institute (Santa Barbara, 2001), and at UC Santa Barbara (various years). Grant support was received from the Fulbright Foundation and the Academic Senate of UC Santa Barbara.

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To extend the grammars-code-best principle to dialogic syntax would of course require a quantification of resonance. Though this is beyond the scope of this paper, for some preliminary discussion of the issue see the section below titled “Is resonance measurable?”

All of the examples in this paper are taken from the Santa Barbara Corpus of Spoken American English, which was developed at the University of California, Santa Barbara by the present author in collaboration with Sandra Thompson and Wallace Chafe {Du Bois, 2000 #296}. For any given corpus segment presented in this paper, the interested reader can consult the published corpus for access not only to the complete transcription but also to the corresponding audio. For details on the Santa Barbara Corpus, including how to access it, see http://www.linguistics.ucsb.edu/research/sbcorpus.html.

The transcription symbols and conventions used in this paper follow the system known as “Discourse Transcription” {Du Bois, 1993 #293}, as updated to the more recent version (“DT2”) of the transcription practice. The most important symbols are given below. (For further details on current developments in DT2 see {Du Bois, in progress #1370} and http://www.linguistics.ucsb.edu/projects/transcription/representing).

Note that some of the examples have been slightly simplified here for clarity and simplicity of presentation.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LINE</strong></td>
<td>intonation unit</td>
<td>one new line for each intonation unit</td>
</tr>
<tr>
<td><strong>JOANNE;</strong></td>
<td>speaker attribution</td>
<td>semicolon follows name written in CAPS</td>
</tr>
<tr>
<td>[]</td>
<td>simultaneous speech</td>
<td>brackets show overlap start and end of overlap</td>
</tr>
<tr>
<td>[2]</td>
<td>simultaneous speech (2nd set)</td>
<td>disambiguates from other nearby overlaps</td>
</tr>
<tr>
<td>(1.2)</td>
<td>pause, timed</td>
<td>pause duration in seconds</td>
</tr>
<tr>
<td>..</td>
<td>micro-pause</td>
<td>less than 180 milliseconds</td>
</tr>
<tr>
<td>:</td>
<td>lag (prosodic lengthening)</td>
<td>colon marks slowing of local tempo</td>
</tr>
<tr>
<td>(H)</td>
<td>in-breath</td>
<td>audible inhalation</td>
</tr>
<tr>
<td>(Hx)</td>
<td>out-breath</td>
<td>audible exhalation</td>
</tr>
</tbody>
</table>
The present example is excerpted from a conversation between three intimates. In this particular exchange, the two speakers are a married couple.

Empty curly brackets {} indicate where words have been left out of the diagraph for simplicity of presentation.

The distinction between presupposing and creative resonance is intended to echo Silverstein’s distinction between presupposing and creative indexicality {Silverstein, 1976 #1342}. The parallels between these pairings are not accidental, and would be interesting to explore in their own right.

Some phenomena in sentence-based linear syntax, such as coordination, may stand to benefit from an analysis of mapping relations along the lines developed for dialogic syntax. This could argue for input from dialogic syntax to linear syntax, or even a redistribution of certain problems between the two branches. But that is another story.

To be sure, there is much work to be done to develop empirical techniques for demonstrating that participants in a given discourse context do in fact perceive affinities between two utterances, and hence “activate” them. This question will surely motivate future inquiry involving psycholinguistic experiments, statistical corpus analysis, and so on. Space limitations preclude a discussion of such methods here {but see \Hobson, in progress #2079}. 

(COUGH) vocalism single parentheses signal any vocal tract noise
%(%) glottalized vocalism creak or “catch” in the throat, etc.
(\(\))((WORDS)) comments double parentheses mark transcriber perspective
. final intonation canonically: low fall in pitch
, continuing intonation slight rise, slight fall, or level pitch
? appeal intonation canonically: high plateau plus final rise
^ primary accent prosodic prominence, nuclear accent
@ laugh one symbol for each pulse of laughter
@okay laughing words laughing while speaking
<@> \(<@>\) laughing words laughing while speaking (alternate notation)
### unintelligible words one symbol per unintelligible syllable
#okay uncertain hearing transcribed words are uncertain
~Joanne pseudograph name change to preserve anonymity