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The teleology of the sign user

ABSTRACT: In my 2009 book *A Theory of Musical Narrative*, I argued that narrativity in music can be productively understood according to the principle of *transvaluation* as defined by the American semiotician James Jakób Liszka. An important aspect of this principle — and hence of musical narrative — is what Liszka describes as "the teleology of the sign user": that is to say, the critical role played by the interpreter's cognitive, cultural, and ideological perspective in formulating and presenting an interpretation. When this role is considered at all, it is frequently confined to a general, cautionary usage wherein the notion of a single, "correct" narrative interpretation of a work is repudiated and a sensitivity to context encouraged. In this chapter, I attempt to move beyond this general usage to consider ways in which it might be more fully characterized and formalized. To that end, I consider certain interpretive perspectives that might be characterized as possessing a cognitive (as opposed to a situational or cultural) component and understood within a framework of binary oppositions. In particular, I call attention to the fundamental formative roles that such perspectives can play in shaping and directing interpretive details. For example, the perception of — and hermeneutic engagement with — patterns deemed to be of narrative significance can arise either from a *bounded (or centripetal)* perspective, in which case the interpretive details tend to reinforce one another, circling around a relatively unified and coherent narrative, or they can arise from an *unbounded (or centrifugal)* perspective, in which case the interpretive details tend to push outward, suggesting the possibility of other non-selected yet viable alternative narratives. These and other binary formulations to be discussed are applied to musical narratives but also have implications for narrative interpretation in general.

KEYWORDS: narrative, hermeneutics, personality theory, discourse, Carl Gustav Jung

In my 2009 book *A Theory of Musical Narrative*, I took up three primary tasks. First, I strove to articulate a definition of narrative general enough to encompass the wide variety of media — literature, music, cinema, and so on — within which it might operate, while also being attentive to the specific and unique character that music narrative possesses. To this end, I drew upon the American semiotician James Jakób Liszka's term *transvaluation,* employed in his 1989 book *The Semiotic of Myth* and about which I will have more to discuss below. Second, I indicated how this definition might be translated into a flexible working model for the analysis of musical narrative, a model that is sensitive to multiple modalities and hierarchical levels of signification and that recognizes fundamental archetypal variations at the global level — those represented by Northrop Frye's categories of romance, tragedy, irony, and comedy. Finally, I demonstrated that this semiotically oriented model of narrative interpretation could accommodate

an eclectic range of analytical approaches, represented in the book by — among others — Robert S. Hatten, Vera Micznik, Eero Tarasti, and myself.

Returning to the definition of narrative as transvaluation, I follow Liszka's understanding of the latter as a rule-like semiosis which revaluates the perceived, imagined, or conceived markedness and rank relations of a referent as delimited by the rank and markedness relations of the system of the signans and the teleology of the sign user.[1]

In more informal terms, the result of transvaluation is to effect a significant change in a work's manifested hierarchy of values as articulated in terms of its markedness and rank relations, to subject this hierarchy to crisis and track the manner in which that crisis is resolved or fails to resolve.[2]

I will not retread the same ground in this present context, and I refer those interested in the larger argument to my earlier research. Instead, I focus here on the implications of the last clause in Liszka's definition — namely, that narrative transvaluation is delimited by "the teleology of the sign user." In its most basic sense, this clause points to the irreducible role of the listener or interpreter in determining how a transvaluation is to be observed, interpreted, and articulated.

Certain corollary conclusions immediately suggest themselves, appearing over and over in the hermeneutic and narrative literature in various forms. One — a kind of narrative Schrödinger's Cat equivalent — is that no single privileged interpretation of a work can exist independently of an observer. Interpretation always manifests itself through the lens of that observer, with all the socio-cultural, experiential, rhetorical, and cognitive refractions of the image that such a lens would create.

A second conclusion to be drawn is that a particular interpretation might be aligned with, at some variance with, or in opposition to, an established social or disciplinary consensus about how a work is to be interpreted. It thus allows for the possibility of interrogating the conventions or assumptions that underlie that consensus, as — for example — Susan McClary has done with respect to patriarchal analytical paradigms.[3] Similarly, Michael L. Klein, in his book *Intertextuality in Western Art Music* (2005), has questioned the necessity of positing a causal chain of influence between one work and another in cases where an intertextual link is to be maintained.

A third conclusion is that the signification system of any work in question is sufficiently complex and multifaceted — with many potentially significatory features

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[1] James Jakób Liszka, *The Semiotic of Myth: A Critical Study of the Symbol* (Bloomington: Indiana University Press, 1989), 71.

[2] Ibid., 15.

[3] Susan McClary, "The Blasphemy of Talking Politics during a Bach Year," in *Music and Society: The Politics of Composition, Performance, and Reception*, ed. Susan McClary and Richard Leppart (Cambridge: Cambridge University, 1987), 13–62.

to observe and select and from which to form patterns — that no two individuals would be likely to interpret that work along the same lines.

Although these conclusions have been — and will continue to be — drawn, our attentiveness to the issue of interpretive teleology is in danger of remaining at the level of the cautionary tale or the permission slip. On the one hand, we warn ourselves not to take our interpretation as fixed, final, and authoritative. On the other hand, we too easily overestimate the degree to which our interpretations are really free and unfettered, ignoring the constraints within which our ideas and insights are necessarily situated.

But what are these constraints? And how, in light of our general semiotic enterprise, might they be productively formalized and folded in to our interpretive system for consideration? Such constraints are in fact manifold. For example, Kevin Korsyn, in his book *Decentering Music* (2003) has described how disciplinary bailiwicks erect barriers of allegiance and identity that can discourage the articulation or dissemination of divergent viewpoints. These viewpoints are consequently assimilated or rejected, rendering their arguments two-dimensional to deflect attention from their "aberrant" features.[4]

Randall Collins, in *The Sociology of Philosophies* (2005) has likewise challenged our unspoken assumptions that ideas emerge — like Athena — fully-formed from the mind of the creative scholar, or that, conversely, our ideas are somehow the product of an amorphous entity like "culture." Instead, he points to the necessary synergistic interactions of teacher and pupil and to the creative engagements and disengagements of one's local intellectual circle and of rival contemporary circles to spearhead innovation and change. In other words, Collins points to sociological and disciplinary constraints on interpretation, constraints that are no less real for being frequently unrecognized and unacknowledged.

I would like to focus on a different constraint, one that I believe to be the most determinative of all with respect to narrative interpretation, and that I would describe as a *cognitive constraint* — that is to say, the role played by our mental constitution and its temperamental, interactive, and functional variables in inflecting the way we perceive musical data, observe signifying patterns and relationships, organize and categorize our perceptions, and articulate a spectrum of values, all aspects that are central to narrative interpretation.

One way to cast the cognitive constraint into sharper relief is to examine a disputed text, a work about which competing narratives have been proposed. Such a disputed text is the opening theme of the Andante moderato movement of Gustav Mahler's Symphony No. 6, shown in Example 1. At issue in this excerpt are certain unexpected features that push against a non-selected — but more conventional — musical syntax, including: 1) the intrusion of chromatic elements into the prevail-

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[4] Kevin Korsyn, *Decentering Music: A Critique of Contemporary Musical Research* (Oxford: Oxford University Press, 2003), 20.

ing major mode in measures 1, 3–4, and 6–8, 2) a hypermetric fluidity apparently concentrated in measures 4–5 and 7–8, and 3) unusual fluctuations in the melodic and rhythmic parameters, particularly the abrupt upward leap to D5 in measure 7 in combination with the out-of-sequence return of the dotted-half-to-quarter-note rhythmic motive from measure 4, and the stretched-out descent to the cadence in measures 8–10.

Example 1: Gustav Mahler, Symphony No. 6, *Andante Moderato* (iii), mm. 1–10

This theme, and the movement that it initiates, was the site of a dialogue involving two analyses, the latter intended as a rebuttal to the former, published in 2001 and 2005, respectively, by Warren Darcy and James Buhler. Interestingly, while the authors are in rough agreement about the critical salient details of the theme, the interpretive frameworks into which they put these details are quite at odds. To give the flavor of this dialogue, here are two quotations, the first by Darcy and the second by Buhler, in which they both respond to the unusual character of the theme:

> Although in Eb major, the theme is shot through with minor-mode implications — the Neapolitan b2 in m. 1, the gb[1] in m. 3, in m. 6, and so on. The theme peaks with a sense of anguish in m. 7 on a drawn-out leading tone suspended over a Neapolitan sixth chord. The ensuing cadential descent unfolds a new two-note motive that suggests the old topos of a musical sigh (or gasp). [...] The expressive impact of this theme lies [...] in its pronounced sense of musical *strain* as it labors to uphold its major-minor premise, labors to avoid collapsing into minor.[5]

Darcy's analysis enacts a localized narrative reading of the passage in question, largely by following the established interpretive tradition at several levels: (1) the terminological (minor-mode implications, Neapolitan, leading tone, cadential

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[5] Warren Darcy, "Rotational Form, Teleological Genesis, and Fantasy Projection in the Slow Movement of Mahler's Sixth Symphony," *19th-Century Music* 25 (2001), no 1, 58–9.

descent, and motive), (2) the hermeneutic (themes with expressive "peaks," motives representing *topoi*, metaphors of strain and collapse, and a duality between tonal clarity and the musical forces that undermine it), and (3) the disciplinary (a Schenkerian sensitivity to mode mixture, and a concern for the work's position within the *Formenlehre* tradition). By contrast, Buhler's analysis seems to revel in novelty, in subverting traditional readings, in part through an appeal to the less-sanctioned disciplinary tradition of the Adornian critique:

> There is nothing especially clear about the chord [in m. 7], above all with respect to its functionality, which has much the same sense of ambivalence as that of the Tristan chord. [...] The musical process gives itself over, assimilates itself, to the alien sound of radical otherness as it exists in itself, and demands nothing of it. [...] In bar 7 a break in the dialectic is staged before our ears, without, however, turning it into a crisis; there is less sense of anguish than the sort of melancholic heartbreak felt when one thinks one might be unwelcome.[6]

One gets a sense in examining these quotations that we are learning as much about the analysts and their modes of perception and judgment as we are about the music. A complicating feature here — as I have mentioned above — is that the second quote was written as a response to the first; the second author is interpreting both the musical event *and* the prior interpretation of that event. In light of this fact, we see that Buhler is reacting to what he perceives as too tight a weave in Darcy's hermeneutic fabric: Buhler is resistant to the oppositional clarity of major vs. minor that Darcy sets up to raise the stakes of the interpretation.

Here the authors are disagreeing less about the salient musical features than about *how one should react to them*. Subsequent portions of Buhler's rebuttal rehearse this same tension. He concurs with Darcy that the Andante is topically distant from surrounding movements, that the primary theme is unusually closural, that the chromatic inflections, tonal shifts, and phrase asymmetries require explanation, and that the primary theme alternates with contrasting material in a rondo-like fashion. What sets the two analyses apart, instead, are the competing and often incommensurable cognitive strategies that are marshaled to explain these features.

How might one untangle these competing strategies? We might try to isolate interpretive decisions that reflect polar oppositions with respect to some parameter. Here, Buhler's own rhetoric suggests two such oppositions. The first involves their respective responses to musical disjunctions:

> The analysis [by Darcy] purchases its harmonic cogency by neutralizing the strangeness of the moment. The textual supplement of anguish is the only thing that alerts

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[6] James Buhler, "Theme, Thematic Process, and Variant Form in the Andante Moderato of Mahler's Sixth Symphony," in *Perspectives on Gustav Mahler*, ed. Jeremy Barham (Aldershot: Ashgate, 2005), 278–80.

us that the shadow of something new and fantastic has fallen across the music here. [...] The clarity offered by the graph however is false to the extent that it demands, as a Schenkerian graph must, that the music conform to the normative tonal syntax of the cadence. [...] The graph therefore runs counter to the searching quality of the tonal expression here, which resists just the type of clear definition that the graph portrays. The musical process gives itself over, assimilates itself, to the alien sound of radical otherness as it exists in itself, and demands nothing of it, whereas for the sake of drawing out its coherent long line the graph does just the opposite, assimilating what is other by excising what it can and domesticating the rest through beams and slurs to the tonally rational world of all too clear auxiliary and passing motions.[7]

Buhler suggests that this is part of a larger pattern of conformance, through which non-normative musical elements are reduced away or exorcized, as when he cites as an empty convention Darcy's position that the period form is used in the work:

The mark of the composing hand is consequently also the sound of authoritarian control: the arbitrary imposition of the period form from above deforms the material so as to contain its energies within the socially acceptable boundaries that the form prescribes.[8]

Similarly, with respect to the intrusion of the minor mode in the Andante, he argues that, for Darcy, "the alterations are understood as sites of resistance to minor, places where the tonal process often fends off a catastrophic collapse of the self into the other."[9]

Buhler positions Darcy's hermeneutic program — a major-mode tonal structure and a periodic Rondo-like formal structure struggling to ward off collapse into the other — as *anxiety* about that which is not normative or that does not conform. In its place, Buhler substitutes a program that foregrounds receptivity to multiple approaches, along with a resistance to fixed structures. Buhler understands the Andante as an "anti-Rondo," in which the material derived from outside the main theme group receives greater attention. In so doing, he rhetorically highlights the foreign, intrusive elements in his interpretation in the service of an interpretive catholicity:

The anti-Rondo, with its rhetorical emphasis on the *Abgesang* rather than the theme, cherishes non-identity. Savouring the beauty of the fleeting sunset, it does not seek to assimilate the other, to capture it and hold it securely in place for the sake of identity, so much as assimilate itself to the other, leaving itself open and vulnerable for the sake of non-identity. Through this openness to what it cannot possess comes the sound of its profound humaneness.[10]

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[7] Ibid., 278–9.

[8] Ibid., 279.

[9] Ibid., 280.

[10] Ibid., 293.

Buhler continues this strategy up to the very end of the article, where he opens out Darcy's "collapsing self" narrative into a larger frame.

> Mahler's Andante constructs a dream world; its idyll dreams of happiness, the acceptance and even cherishing of non-identity. But it also knows the danger of sentimental enchantment. Disavowing identity, his dream turns self-critical and breaches the sentimental subject idealistically built on it, but *without crisis and without disowning the world*.[11]

Here Buhler appears to remake Mahler's music in his own image — but this is of course what Darcy, or any of us, does in the act of interpretation. I am not concerned here with whether one reading or another is more correct, or even more rhetorically effective. Instead, I am calling attention to the impact of divergent cognitive strategies on the creation of divergent, yet equally coherent, interpretations. To summarize, we might describe this first binary distinction as representing a perceptual preference for either *bounded* or *unbounded pattern* articulation. In Darcy's case, a bounded interpretive pattern lends a sharp, focused coherence to the analysis and the sense of a singular vision articulated; in Buhler's case, an unbounded interpretive pattern attempts to combine the relative complexity of an open system with the rhetorical virtuosity of following a contingent thread — in the moment, as it were.

A second binarism to be inferred from Buhler's engagement with Darcy's ideas concerns the different ways they organize musical material and the place of that organization in their larger discourses. Darcy rhetorically employs a Schenkerian meta-language that allows him to position his analyses as empirical tests, observations that might be validated and rechecked by other scholars who accept the same meta-language. He also legitimizes his results though an appeal to the privileged status of his methodology within the American musical-theoretical community. Buhler, though analogously situated with respect to an Adornian aesthetic, positions himself rhetorically as resistant to privileged methodologies and skeptical of orthodoxy. Buhler appears to be attempting to foreground an interpretive complexity represented by his array of sources (including Arnold Schoenberg, Robert Hirschfield, and Constantin Floros) while also repositioning the perspective within which they should be viewed — the music's "cherishing of non-identity." This aesthetic of elegance-within-complexity is carried over into the meta-analytical domain in his use of the "anti-Rondo" principle to organize both the music *and* the discourse — the chapter, like the Andante movement itself, is made to involve the alternation of a conventional idea (the array of critical sources) with contrasting material (Buhler's discussions of these sources), in which the latter overtake the primary role from the former.

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[11] Ibid.

We might characterize this second binarism as reflecting a preference either for *sanctioned consensual systems* or *emerging idiosyncratic systems*.

Before examining these binarisms in more detail, we can draw several other important conclusions from this brief comparison. First, there is a sense in which the various critical positions about the work in question, though subjectively integrated by the authors, are, to some degree, conceptually incommensurable. Second, as a consequence of this incommensurability, the authors are actually talking at cross-purposes, each presenting their own unique vision without establishing a genuine connection between them. Now it might be the case that a certain rhetorical bracketing and distancing from alternate approaches is necessary to establish any coherent interpretation at all. If this is so, then we cannot properly gauge the epistemological status of any narrative interpretation unless and until we understand the contribution played by cognitive constraints.

I would suggest that viewing interpretation through the lens of binarisms such as the two described above might help us to understand the variances that cognitive constraints introduce. In other words, beyond any contribution given by the medium to be analyzed, and beyond any traditional analytical or hermeneutic paradigms, the interpreter makes certain choices that actually have more to do with one's preferred modes of perception and organization. These modes cannot be stripped away to establish objective "truth" on the basis of an Archimedean point of stability, since that truth can only be constituted within the framework that it establishes.

Although we cannot set aside the cognitive component of interpretation, we can introduce a degree of productive empathy into the ways that it shapes our arguments and those of others. Indeed, a recognition of interpretive differences arising from distinct — but equally coherent — perspectives allows one to clarify where common ground exists, where improvements may be considered, and where differences may be encouraged to coexist. It is better, I believe, thus to approach an interpretation on its own terms before engaging further with it.

The question of cognitive constraints has become the focus of a growing degree of research in recent years from fields as distinct as neuroscience, phenomenology, systems science, psychology, corporate training, and education. A particularly convergent and productive vein of research dates back 100 years to Carl Jung's articulation of eight distinct *cognitive functions*, themselves inspired by Friedrich Nietzsche's philosophy and William James's pragmatic approach to psychology. The systems scientist Dario Nardi has recently referred to these cognitive functions as *representation systems* that cohere on the basis of distinct functional principles. Nardi likens the distinct characteristics of these systems to those that give rise to different spoken languages — for example, the Finnish language, with its alphabetic characters that combine to form morphological units, differs in character from Chinese, with its larger number of characters that contain visual nuances not applicable to alphabetic characters. Both languages facilitate communication,

but employ different strategies to do so, to the extent that certain concepts can be expressed in Finnish that cannot be expressed in Chinese, and vice-versa.[12]

Recent approaches to these cognitive functions have focused on 1) phenomenological definitions, 2) their neuroscientific relationships to patterns of brain function, and 3) issues of systematization and application. I'd like to touch on these three areas in the present context of narrative interpretation to construct certain productive avenues of approach to the teleology of the sign user. I'll present a much larger set of binarisms that emerge from this research toward the end of this study, but let's return first to one distinction we've already exemplified — bounded vs. unbounded pattern articulation — in order to illustrate the phenomenological and neuroscience research.

Bounded vs. unbounded pattern articulation would appear to engage with a similar distinction made by Jung with respect to his cognitive functions Introverted and Extraverted Intuition. Nardi describes these functions, respectively, as "transforming with a metaperspective'[13] and "exploring emerging patterns."[14] Nardi and other researches like Linda V. Berens have attempted to provide systematically rigorous definitions and phenomenologically accurate descriptions of these functions, a task complicated by the fact that (1) their qualities must be abstracted from any particular situation in which they are employed; (2) one must filter out any characteristics that result from the use of multiple functions in combination; and (3) one must distinguish between the qualities of each function that emerge from comfortable use and those that are the product of strain, anxiety or unfamiliarity. Here, for example, is Nardi's description of introverted intuition (abbreviated as Ni):

> At the core of introverted Intuiting is a metaperspective — the highest level or the most flexible frame of mind or form of behavior that each of us currently has access to [...]. With understanding we can shift between perspectives at will, each one giving us insights and energizing us with a different "way to be" to solve otherwise intractable problems [...]. The most powerful metaperspectives result in a transformation, synthesis, or paradigm shift. All that was confusing or waiting on the edge of our mind is now accessible from a single vantage point.[15]

Notice the extent to which the bounding metaperspective shapes the working of this function, giving it a centripetal character — any subsequent interpretive work results from and coheres on the basis of the established boundaries. By contrast, here is one definition of extraverted intuition (abbreviated as Ne):

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12   Dario Nardi, *8 Keys to Self-Leadership: From Awareness to Action* (Huntington Beach, CA: Unite Business Press [Telos Publications], 2005), 190–2.

13   Ibid., 71.

14   Ibid., 55.

15   Ibid., 73–5.

Extraverted intuiting involves noticing hidden meanings and interpreting them, often entertaining a wealth of possible interpretations from just one idea or interpreting what someone's behavior really means. It also involves seeing things "as if," with various possible representations of reality. Using this process, we can juggle many different ideas, thoughts, beliefs, and meanings in our mind at once with the possibility that they are all true [...]. Thus a strategy or concept often emerges from the here-and-now interactions, not appearing as a whole beforehand. Using this process we can [...] appreciate brainstorming and trust what emerges, enjoying imaginative play with scenarios and combining possibilities, using a kind of cross-contextual thinking.[16]

In contrast to the previous definition, there is an unbounded, centrifugal quality to this function. Because the perspective is not predetermined at the start, the focus shifts from articulating and refining the whole to finding one of many threads through a network of data.

To get a better sense of how these functions can affect interpretation, here are two phenomenological, "from-the-inside," descriptions of the creative process taken from interviews I conducted with two music scholars reflecting on their own writing processes. Here is one (anonymous) contribution (let's call him/her "A"), one in which I see the undeniable influence of unbounded pattern articulation (from Jung's extraverted intuition, or Ne):

I think of any complex thought or system of related thoughts as a three-dimensional matrix [...] with [...] links all multiply connected to one another. The problem that I have is that writing is necessarily linear — you start at the beginning and move in a straight line until you hit the end. So you have to impose a kind of flattening distortion onto thought — to render something three-dimensional in two dimensions. This stresses me out, because, in my mental image of thought as a matrix, no one point is privileged as the "start." Where does a thought start — well, what's the first synapse in the brain? What's the first marshmallow in a jell-o mold? Know what I mean? It's a nonsensical question, and yet we force ourselves to ask it by virtue of the fact that we cannot communicate verbally or in written form without linearity, with its beginnings and endings [...]. Anyway, on big tasks, I am sometimes a bit paralyzed by the awareness that I whatever place I start at is kind of random. But then again, I don't want to overstate the randomness, because the starting-point is dictated by the exigencies of the moment: the point you wish to convey most strongly, how you wish to frame the issue for whatever conceptual purpose. The trick then is that you have to be very aware of your own purposes, and aware of your audience and what might resonate most strongly with them. But the thing is: I am always aware that the same sub-topic within a complex topic can play multiple roles (as supporting evidence, as the point of a paper or chapter, as a footnote) depending on the exigencies of the writing situation. This leads me

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[16] Linda V. Berens, Dario Nardi, *Understanding Yourself and Others, An Introduction to the Personality Type Code* (Huntington Beach, CA: Telos Publications, 2004), 7.

to a certain dissatisfaction with conventional writing manuals, which assume a more orderly progression than I feel I can manage. I like to feel that I'm keeping my options open — I don't work from outlines. I don't know what's important when I start! I have some ideas, but these are always susceptible to revision as I make more discoveries or write things down and then the real argument gradually emerges. For me, research is a circular process, where you have an idea, research it, and in researching it develop new ideas based on contingencies.

Notice the way that A's argument emerges from the placing together of many initially unconnected insights to articulate an emerging pattern. In another context, A spoke of beginning a large project by pulling together dozens of short (500–3000 word) sketches and mini-essays on individual component sub-topics that were written over a couple of years. What is striking about A's approach is its combination of topical extensity and a methodological open-endedness. In resisting a linearization of method or insight, A is able to glean insights from unusual juxtapositions of material, applying them by analogy to other situations, and not circumscribing in advance the direction that that linking process will take. That so many of A's remarks should constellate unbounded pattern articulation is not surprising, since they follow naturally from the core of a coherent representation system. Any one technique might be found in other circumstances, but taken together they strongly evoke this particular mode, evincing a predilection to focus attention on the interconnectedness and global relations among ideas across different contexts and domains.

By contrast, consider another interview subject — let's call him or her "B." Like A, B's approach foregrounds abstract connections between multiple domains, but there are significant differences of motivation:

The metaphor I keep coming back to when I think about my own research is that of being at an optician's office and trying on lots of different pairs of glasses — glasses with clear lenses, tinted lens, glare-proof lenses, colored lenses. I can see perfectly out of all of them, but my experience is totally different depending on what I'm looking through. I'm drawn to finding new ways to classify some aspect of musical language or thought, not so much for the categories themselves, but to call attention to the fact that one could look at the same phenomenon in so many different ways. I want to break the traditional molds, to open up a whole range of insights that people can use to go in completely new directions. I usually draw inspiration from reading — mainly from outside my field — and at first I just read "for fun," as it were, not thinking of what I'm doing as preliminary research. Every once in awhile, I begin to feel a resonance with what I'm reading, and an idea starts to form, with lots of complex layers and directions. I almost always have a strong conviction that my insight is "right," but my problem is to demonstrate it, to connect it up with reality. So then comes the hard work: confirming it and testing it in specific situations and considering as many objections to my idea as possible. If my model does not match up with "reality" in places, then I try to refine

my model to account for these problems. It's like working with a huge tent that isn't fixed down — it won't do its job, it will blow away until there are lots and lots of ropes connecting it to the ground.

Although A and B have some qualities in common — a global focus and a tendency toward abstraction — there are significant differences. B's comments suggest a second representation system, what I have called bounded pattern articulation (from Jung's introverted intuiting, or Ni). The core of this mode — "transforming with a metaperspective" — emerges very clearly in the quoted excerpt. There is an emphasis on evoking new insights, not to solve a particular problem or task, but for its own sake, for the new vistas that emerge from placing some elements in relief and letting others move into the background. The deductive quality suggested by the mode's name is clearly evident in the way B moves from idea to application — a framework is laid over a domain, and then linked up with examples that give it depth. B's language has a kind of metaphorical richness that reinforces the core — deeper meanings emerge through unexpected verbal connections. Unlike A, B does not allow the web of connections to spin out from moment-to-moment, but instead refers those moments continually back to the initial framework."

We might speculate on potential misreadings that might arise between A and B due to their different functional priorities. To A, B might appear to be "cooking the books," constraining speculation ahead of time to conform to an *a priori* framework. On the other hand, B might find A's approach unfocused and diffuse, lacking a sufficiently powerful unifying thread. I mention this to suggest the possibility that moments of misreading can arise from these clashes of function. Someone comfortable with unbounded patterns might be more accepting of analyses with frequent shifts of focus and direction than someone for whom this function is foreign or uncomfortable.

In addition to being representationally coherent as functional oppositions, recent social neuroscience research appears to have confirmed that this opposition has its basis in different configurations of brain functions. Experiments at Nardi's social neuro-imaging lab at the University of California Los Angeles have yielded certain conclusions about the role of cognitive functions:[17]

1. Certain regions of the brain are employed by all subjects when performing a certain range of tasks.

2. Certain recurring patterns of brain-region activation can be correlated with particular cognitive functions like Ni or Ne.

3. Individual cognitive activity reveals that certain regions of the brain (or combinations thereof) are more easily activated by stimuli in certain individuals than in others.

4. Individual cognitive functions appear as first-default strategies for certain individuals, second-default strategies for others, and not at all frequently for oth-

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[17] Dario Nardi, *Neuroscience of Personality* ([PowerPoint slides], 2009), unpublished, 17.

ers. In other words, cognitive functions are employed by individuals according to a consistent hierarchy of preference and comfort level.

Returning to our binary opposition of unbounded vs. bounded pattern articulation (Ne vs. Ni), we can find in Nardi's research both a cognitive trace of such an opposition (expressed in terms of extraverted and introverted intuition) and distinct populations that prefer to employ one strategy over the other (and a further population that does not prefer either strategy to a significant degree).

So, with respect largely to individuals exhibiting a marked preference for it, unbounded pattern articulation manifests itself cognitively in several ways.[18] First, it is activated by tasks involving what Nardi calls "trans-contextual thinking," or the joining together of aspects of situations that appear unrelated. (Recall A's penchant for stringing together disparate small sketches into a larger project.) Second, it engages a region of the brain (P4) located roughly in the center of the right posterior convexity that appears to be concerned with assessing the relative contributions of multiple but simultaneous factors. Again, recall A's concern for not reducing away the complexity of the phenomena in question. Third, peak usage of this function is associated with a zig-zag-like accessing of multiple regions of the brain, as if sorting through numerous provisional solutions. Finally, it engages an additional region of the brain (F7) located on the outer edge of the left frontal lobe. This region contains so-called "mirror cells," that adjust responses to the activity and behavior of others and that promote a kind of "as-if" thinking that imagines one's self in another's place or situation. Here I would stress the contingency of the articulated pattern on a particular context, a point also touched upon by person *A*.

By contrast, bounded pattern articulation is associated with entirely different mental processes.[19] Two regions of the brain in particular are activated in this context. The first is a region (T6) located on the outer edge of the right posterior convexity that is identified with making projections about future situations and outcomes, while the second (Fp2), located just right of center at the outer edge of the frontal lobe, is concerned with tracking one's point of progress in a particular process. Here we observe both the meta-perspective reframing characteristic of person B and the necessity of a boundary within which to track progress. A more contextually contingent, unbounded approach would not allow a more precise fixing of progress along a path. Peak usage of this function thus associates with looking ahead to solve unforeseen problems. Unlike other functions, both kinds of pattern articulation call forth some response from all brain regions, perhaps because of the provisional, initially non-characterizable nature of such patterns, but bounded pattern articulation does not exhibit the zig-zag pattern characteristic of unbounded pattern articulation. Instead, there is a more leisurely accessing of

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[18] Dario Nardi, *Neuroscience of Personality: Brain Savvy Insights for All Types of People* (Los Angeles: Radiance House 2011), 98–9.

[19] Ibid., 102–3.

multiple regions characteristic of holistic strategizing. Note that this configuration is less characterized by external contextual stimuli at the perceptual stage than it is, retrospectively, in the service of the future projection.

I have suggested that both phenomenological and neuroscientific evidence points to pragmatic and functional distinctions in human approaches to creative tasks like the interpretation of music or other narrative phenomena. I would also argue that these individual distinctions — when applied to any complex system of perceptual and systematic variables — lead to recognizable variances in the character of that interpretation. It is thus possible to imagine a more exhaustive and rigorous kind of "discourse analysis" the aim of which is to carefully untangle the impact of cognitive preferences.

In this current study I have limited myself to one or two binarisms in the interest of exploring their implications in depth. But I would like to conclude by briefly touching upon the range of other such distinctions upon which we might call when undertaking the kind of discourse analysis that I envision. I have been drawn to a Jungian perspective on these issues because of its historically rich interpretive tradition, its dissemination through a wide range of disciplines in the social sciences, arts, and humanities, the cognitive support for its conclusions, and, perhaps most importantly, the formative incorporation of binary oppositions into its structure and its consequent potential for systematic articulation into such binarisms.

While I do not wish to overload the present study with excessive detail, a summary of certain features of Jungian type theory, shown in Figure 1, is in order here.

Perceiving Functions: Taking in information, "process management"[20]
(N) iNtuiting: Focus on abstract contextual patterns
    Ne (Extraverted iNtuiting): envisioning, enabling, entertaining[21]
    Ni (Introverted iNtuiting): knowing, imagining, divining[22]
(S) Sensing: Focus on sensory data
    Se (Extraverted Sensing): experiencing, engaging, enjoying[23]
    Si (Introverted Sensing): verifying, implementing, accounting[24]
Judging Functions: Organizing and sorting information, "decision making"[25]
(T) Thinking: Organize according to logical or "objective" criteria
    Te (Extraverted Thinking): planning, enforcing, regulating[26]
    Ti (Introverted Thinking): defining, naming, understanding[27]

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[20] Ibid., 51–2.
[21] John Beebe, "The Battle Within: How Interactions Between Our Archetypes and Our Functions Affect Us," unpublished lecture, August 4–7, 2010, Berea, OH.
[22] Ibid.
[23] Ibid.
[24] Ibid.
[25] Nardi, *Neuroscience of Personality: Brain Savvy Insights*, 51.
[26] Ibid.
[27] Ibid.

(F) Feeling: Organize according to criteria of individual or social value
  Fe (Extraverted Feeling): affirming, validating, relating[28]
  Fi (Introverted Feeling): appraising, judging, valuating[29]
Extraversion: perception, judgment processed "as if" unmediated[30]
Introversion: perception, judgment processed "as if" mediated[31]

Typical hierarchy of functions: balance of perceiving/judging, extra-/intro-
version in primary and secondary functions (Examples: NiTe, SeFi, TiFe, FeNi)

Figure 1: Jung's Eight Cognitive Functions

Figure 1 displays the binarisms most commonly discussed in the Jungian typologi-
cal literature. The top half of the figure displays the four "perceiving" functions
of Intuiting (N) and Sensing (S) in their extraverted and introverted "attitudes';
these functions are called perceiving functions because they are concerned with
differences in how individuals prefer to take in information — or, as Nardi puts it,
with "process management."[32] These two functional pairs are differentiated with
respect to whether one tends to focus on the sensory data itself (S) or the more
abstract contextual patterns that they form (N).

    By contrast, the second half of Figure 1 displays the four "judging" functions of
Thinking (T) and Feeling (F); judging functions are concerned with differences in
how individuals prefer to organize and sort that information — or, as Nardi puts
it, with "decision-making."[33] These two functional pairs are differentiated with
respect to whether one tends to organize according to logical or "objective" criteria
(T) or according to criteria of individual or social value (F).

    The so-called extraverted and introverted "attitudes" into which each category
is divided (as symbolized by small-case "e" and "i," respectively), differ according
the degree to which perception or judgment is approached in a relatively unmedi-
ated or mediated fashion. In other words, some cognitive functions appear phe-
nomenologically to the subject (1) "as if" information were simply being recorded,
"played back," and interacted with in ways that could be shared by others, or (2)
"as if" unique to the subject and filtered through their consciousness in such a way
as to imply a separation.[34]

    Finally, Classical Jungian theory hypothesizes that the most effective pairing of
preferred functions in an individual should be those that feature a balance between

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[28] Ibid.

[29] Ibid.

[30] Kenneth Joel Shapiro, Irving E. Alexander, *The Experience of Introversion: An Integra-
tion of Phenomenological, Empirical, and Jungian Approaches* (Durham, NC: Duke University
Press, 1975).

[31] Ibid.

[32] Nardi, *Neuroscience of Personality: Brain Savvy Insights*, 51–2.

[33] Ibid.

[34] Shapiro, Alexander, *The Experience of Introversion*, 119–30.

perception and judgment, and between extraverted and introverted attitudes, since each of these categories is necessary for effective cogitation. Indeed, Nardi's EEG research suggests that such a pairing is statistically quite common. Typical functional pairings thus tend to correspond to this principle; for example, one might find Ni (an introverted perceiving function) as a primary function paired with Te (an extraverted judging function) as a secondary function. Nevertheless, other preferred pairings are possible, and contextual factors might require any combination of functions, no matter how familiar or comfortable to the subject.

Table 1 features a partial listing of interpretive binarisms that arise from Jungian cognitive functions and their combinations, and the research communities and individuals that have engaged with it — including some to which I have already alluded (Berens and Nardi) and others that I have not (John Lopker and John Beebe). In the present context I do not intend to discuss the implications of this table in full, nor will I discuss all of the binarisms contained herein. Instead, I wish to provide some sense of the richness and complexity of this model as a tool for discourse analysis and to show how the functions we have described fit into that model.

As an analytical model for narrative discourse analysis, these binarisms offer a productive way forward. Not every dichotomy will apply to every case or comparison, because the constellation of preferred functions differs from individual to individual, but to the degree that a binary opposition is salient, an individual is likely to prefer one term of that opposition over another — especially if it engages a strongly-preferred function.

Table 1: Cognitive Binarisms (**bold** entries discussed in text)

#	First Term	Second Term	Source	Jungian Basis
1	**Unbounded Pattern Articulation**	**Bounded Pattern Articulation**		Ne vs. Ni
2	Experiential Perception	Comparative Perception	Beebe (2010)	Se vs. Si
3	Affirming Valuation	Appraising Valuation	Beebe (2010)	Fe vs. Fi
4	**Established Systematizing**	**Idiosyncratic Systematizing**		Te vs. Ti
5	Concrete Language Usage (Content)	Abstract Language Usage (Context)	Berens (2006)	Se, Si vs. Ne, Ni
6	Pragmatic Criteria (Separating)	Affiliative Criteria (Uniting)	Berens (2006)	Se, NiTe, NeTi vs. Si, NiFe, NeFi
7	Focus on Motive	Focus on Structure	Berens (2006)	Se, NiFe, NeFi vs. Si, NiTe, NeTi

#	First Term	Second Term	Source	Jungian Basis
8	Unmediated Engagement (Low stim.: brain idle)	Mediated Engagement (Low stim.: brain active)	Shapiro (1975) (Nardi [2008])	Se, Ne, Te, Fe vs. Si, Ni, Ti, Fi
9	Directing Communication	Informing Communication	Berens (2008)	SeTi, SiTe, Ni vs. SeFi, SiFe, Ne
10	Focus on Outcome	Focus on Process	Berens (2008)	SeTi, SiFe, FeNi, TiNe, Fi, Te vs. SeFi, FeSi, TiSe, SiTe, Ne, Ni
11	Judgment Function (Decision Making)	Perception Function (Process Management)	Nardi (2010)	Te, Ti, Fe, Fi vs. Se, Si, Ne, Ni
12	Objective Judgment	Value Judgment	Lopker (2000)	Te, Ti vs. Fe, Fi
13	Open Perception	Close Perception	Lopker (2000)	Se, Si vs. Ne, Ni
14	**Attention to the Actual**	**Attention to the Novel**	Lopker (2000)	Se vs. Ne
15	Seeking Continuation (Past Orientation)	Seeking Anticipation (Future Orientation)	Lopker (2000)	Si vs. Ni
16	Confining Decisions	Refining Decisions	Lopker (2000)	Te, Fe vs. Ti, Fi
17	**Employing Methods (Causation)**	**Employing Customs (Relations)**	Lopker (2000)	Te vs. Fe
18	Categorizing with Ideas	Categorizing with Ideals	Lopker (2000)	Ti vs. Fi
19	Global Variability Emphasis on Variation	Local Variability Emphasis on Themes	Lopker (2000)	Se, Ne + Ti, Fi vs. Si, Ni + Te, Fe

Using these oppositions as lenses, we can observe quite distinct interpretive profiles in the music-narrative community. For example, we might contrast my own approach with that of my colleague Robert S. Hatten, author of many hermeneutic and narrative studies including the 2004 book *Interpreting Musical Gestures, Topics, and Tropes*. I would propose that my work shares with Hatten's work a pronounced focus on bounded pattern articulation (Row 1); indeed, Hatten's entire corpus of writings is concerned with reframing our approach to interpretation along particular structural and hermeneutic lines. However, I would also suggest that we differ with respect to Row 17, summarized there as "method" vs. "custom." Hatten's research seems primarily directed toward achieving a greater degree of terminological precision and richness in the service of a robust analytical method. By contrast, my categories — however similar in character or disciplinary

origin — are primarily harnessed for a different end: to harmonize and to create space for disparate interpretive approaches through the precise articulation of their differences.

As another example, consider the scholars Edward Pearsall and Susan McClary. Their respective research outputs reveal certain common features; for example, both reveal a preference for "appraising valuation" (Row 4). That is to say, their work is frequently positioned as a vigorous defense of what they value — and therefore what *we* should consider valuing — in musical discourse. On the other hand, they appear to differ with respect to Row 14, summarized there as "attention to the actual" and "attention to the novel." In Pearsall's writing — such as his essay "Anti-Teleological Art: Articulating Meaning through Silence"[35] — he is concerned with calling our attention to perceptual features that we might not have noticed. McClary's work, by contrast, displays emergent patterns that shock us out of our customary frameworks.

In the present context, I have only been able to hint at the possibilities of this differential approach to narrative discourse analysis. But I hope to have suggested that we create a troublesome blind spot when we focus entirely on the analytical object when practicing narrative interpretation. It is an ironic truth that to understand the work of art, the interpreter must turn the lens upon him — or herself. To understand the teleology of the sign system, we must understand the teleology of the sign user.

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[35] Edward Pearsall, "Anti-Teleological Art: Articulating Meaning through Silence," in *Approaches to Meaning in Music*, ed. Byron Almén and Edward Pearsall (Bloomington: Indiana University Press, 2006), 41–61.

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