Harmonious Madness: The Poetics of Analogy at the Limits of Blending Theory

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Abstract This essay argues that Percy Bysshe Shelley's (1792–1822) analogical poetics at once anticipates and challenges contemporary cognitive-scientific models of conceptual structure. Section 1 outlines unresolved logical and motivational issues that limit the explanatory power of conceptual metaphor and blending theories with respect to conceptual conflict and creativity. The deficiency may be supplied by recourse to English Romantic theories of poetic imagination, which are centrally occupied with the logic of conceptual conflict and the motive for creativity. Particularly pertinent are Shelley's suggestive hypotheses about the projective processes that drive novel metaphoric conceptualization, which he (in company with cognitive theorists) posits as the engine and outpost of creativity. To demonstrate the plausibility of Shelley's hypotheses, section 2 marshals as evidence early twentieth-century literary-critical responses to Shelley's poetics, especially as enacted in his 1820 ode "To a Sky-Lark." These diverge in their evaluations of the poem, but they nevertheless converge in their descriptive accounts of the peculiar cognitive effect primed by Shelley's complexly metaphoric verse, which orients attention not to emergent meanings or achieved mental representations but rather to underlying *processes* of meaning-making and representation that precede, produce, and ceaselessly replace any such *products* of (literary) cognition. Section 3 attributes this peculiarly dynamic effect to the poem's insistent violations both of consistent conceptual structure and of "directionality" constraints on metaphoric projections from one conceptual

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domain to another. These violations upset deeply ingrained habits of conceptualization, frustrating the normally automatic processes that generate more or less consistent mental representations and thereby rendering those processes perceptible. The analysis thus illustrates a reciprocal exchange between poetics and cognitive science: the systematic deviances of Shelley's verse can be exactly characterized in terms developed by cognitive metaphor theory; so characterized, those deviances may in turn be systematically manipulated to test and improve blending theory's account of what it itself describes as "the mind's hidden complexities" (Fauconnier and Turner 2002).

C'est la loi même de l'expression poétique de dépasser la pensée.
(It is the very law of poetic expression to exceed thought.)
Gaston Bachelard, *L'air et les songes*

1. Conflict and Creativity: The Relation of Romanticism to Cognitive Science

What is it to exceed thought in expression? We may construe "thought" as "thought to date," in which case we are concerned with a mode of expression that surpasses a given horizon of conceptual expectations, or as "all and any thought," in which case we are concerned with a mode of expression that passes beyond conceptualization altogether. Either way, we would be concerned with creativity, that signature but notoriously inscrutable quality of the human mind, but in the first instance with creativity as manifested in its *products*, that is, in novel conceptualizations or representations, while in the second instance with creativity as an underlying *process*, that which gives rise to and operates before and after, or "beyond," any such conceptual or representational products. Traditionally, literally criticism has understood, and accordingly occupied itself with, creativity in the first or "objective" sense, that is, as embodied in the historical record of literary artifacts; presumably, cognitive science understands, and accordingly occupies itself with, creativity in the second or "subjective" sense, that is, as embodied or rather "operationalized" in the transhistorical cognitive architecture of the species. The goal of the present essay is not to justify these broad disciplinary claims, which like all truisms can be easily and productively contended, but rather to argue their opposites: first, that cognitive science is too often occupied with the objective (or object-like) *products* of creativity, for example, the semantic and schematic contents of particular conceptual metaphors and emergent blends; and second, that literary criticism, both as a record of relevant data and a repository of time-tested analytics and finely nuanced theory, stands as a valuable

resource for the investigation of the subjective *processes* of creativity that the science of human cognition may properly be expected to explain.

As a ready illustration of what lies at stake, consider this recent statement of the "problem" of creativity by the philosopher of mind and cofounder of conceptual metaphor theory, Mark Johnson (2007:13):

> Our ability to make new meaning, to enlarge our concepts, and to arrive at new ways of making sense of things must be explained without reference to miracles, irrational leaps of thought, or blind impulse. We have to explain how our experience can grow and how the new can emerge from the old, yet without merely replicating what has gone before.
>
> As it turns out, this may be one of the most difficult problems in all of philosophy, psychology, and science: how is novelty possible? As far as I can see, nobody has yet been able to explain how new experience emerges. The problem is that if we try to give a causal explanation of novel experience or novel thought, these come out looking causally determined, rather than creative and imaginative. An embodied theory of meaning will suggest only that new meaning is not a miracle but rather arises from, and remains connected to, preexisting patterns, qualities, and feelings.

Johnson outlines "one of the most difficult problems in all of philosophy, psychology, and science" only to sidestep it with the admission that his "embodied theory of meaning" will "suggest . . . that," but not yet "explain how," "the new can emerge from the old," "novel thought" from "preexisting" inputs. Having described the task of scientific, causal explanation as being in this case paradoxically intractable[1]—such explanation would make creativity look "causally determined" and so predictable "rather than creative"—Johnson can and does proceed to the analytic discovery of "preexisting patterns, qualities, and feelings" in the products of creativity, including works of art. Lists of constituent "images, image schemas, qualities, metaphors, and emotional contours" are thus identified "simply to show . . . that the arts make use of the very same ordinary, everyday elements and dimensions of meaning that operate at the heart of our more prototypical meaning-making in language" (ibid.: 208). The book's opening and critical question of "how novelty is possible"—of the processes by which the mind may reconstitute these "everyday elements and dimensions of meaning" into "new ways of making sense"—is not even in view by this stage of Johnson's discussion.

1. Johnson (2007: 123, 181n) calls throughout for a variety of supplemental accounts that would be preliminary to a theory of creativity, but he concludes just as he began: by admitting that "the greatest mystery that remains for an embodied, experientialist theory of how creative imagination works . . . is, how new meanings and new connections emerge" (ibid.: 274).

What is in view, instead, is essentially a more ambitious version of the conceptual metaphor argument that Johnson originally developed with George Lakoff in *Metaphors We Live By* (Lakoff and Johnson 1980), here offered as somehow foundational to a theory of creativity that nevertheless remains out of reach. But this approach unfortunately obscures the very processes upon which creativity depends. To see why, we need only recast the question of creative process in terms of the original premises of cognitive metaphor theory and of cognitive linguistics more generally, namely, that conceptual structure is "naturally" consistent and that grammatical form is motivated by conceptual structure.[2] If both premises were true, how would it be possible to use grammatical forms to create *inconsistent* conceptual structures?

The first premise, that human conceptual structure is built upon certain environmentally regulated and universally shared foundations, makes at least intuitive sense. Often comprehended under the shorthand terms "folk physics," "folk biology," and "folk psychology," these foundational conceptual structures are supposed by cognitive and evolutionary psychologists to derive from and conform to biophysical, environmental, and behavioral regularities and predictabilities. This fit between basic conceptual structures and natural and social surroundings defines conceptual "consistency" or "coherence," as in Lakoff and Johnson's (1980: 230) influential conceptual metaphor theory:

> The nature of our bodies and our physical and cultural environment imposes a structure on our experience, in terms of the natural dimensions of the sort we have discussed. Recurrent experience leads to the formation of categories, which are experiential gestalts with those natural dimensions. Such gestalts define coherence in our experience. We understand our experience directly when we see it as being structured coherently in terms of gestalts that have emerged directly from interaction with and in our environment. We understand experience metaphorically when we use a gestalt from one domain of experience to structure experience in another domain.[3]

2. These are indeed but assumptions with little to recommend them in the way of explanatory power and much to disrecommend them (at least with respect to language understanding), as Meir Sternberg (2009: 511 ff.) cogently argues.

3. In Lakoff and Johnson's (e.g., 1980: 10, 44, 94–95) original terms, though two different metaphors structuring the same concept might not be *consistent* with one another (e.g., ARGUMENT IS A JOURNEY, ARGUMENT IS A CONTAINER), they will still be *coherent* at a deeper level of metaphoric structure and entailment. This requirement of overall metaphoric coherence, emanating from and hewing to the "gestalts" that "define coherence in our experience," is effectively a requirement of consistency: in practice, it constrains against the metaphoric connection of inconsistent concepts. For recent discussion along the same lines, see Johnson 2007: 259.

Invoking much the same rationale, conceptual integration or blending theorists summarize their model's governing principles in terms of an "overarching goal" of "compression to human scale" (Fauconnier and Turner 2002: 322)—to those "ranges of temporal distance, spatial proximity, intentional relation, and direct cause-effect relation [that] are human-friendly" because derived from "direct perception and action" (ibid.: 312). Such environmentally attuned conceptualization is self-reinforcing or "tautologically" consistent: the conceptual system, a product of our perceptual, motor, and social endowments and experiences, preferentially reproduces their "human-scale" information and structures. Concepts and meanings compressed to human scale are (or become) naturally fit, so to speak, and therefore make sense more or less transparently, without one's awareness that the mind is in fact *making* that sense.[4]

The second premise, that grammatical form is motivated by and derived from conceptual structure, is the foundational insight of cognitive grammar. In cognitive grammar, "linguistic structure is seen as drawing on other, more basic systems and abilities (e.g., perception, memory, categorization) from which it cannot be segregated"; cognitive grammarians are therefore careful "to invoke only well-established or easily demonstrated mental abilities that are not exclusive to language" (Langacker 2008: 8). Like the conceptual structure that it expresses, language structure too is here supposed to derive from and conform to naturally selected structures supporting our perceptual, memorial, and categorical abilities. But in this circulating economy of consistency between language, concept, and world, how is it possible to have an *inconsistent*, *excessive*, or otherwise *surpassing* thought? How can this cognitive model explain the ceaseless creativity and often revolutionary innovation that drive art, literature, science, and technology? More pointedly, how can it explain the productivity that is the essence of natural language systems and that is spotlighted in novel metaphors? Many of these—"stony sky," "seated wind," "happy brick," for example—involve the violation of "naturally consistent" conceptual structures and boundaries (i.e., the ones deriving from such "mental abilities" as "perception, memory, and categorization"). More pointedly still, how can this cognitive model account for literature and literary history, which have been defined exactly in terms of surpassing established "horizons of expectation" (Jauss 1982), that is, sets of conceptual predispositions built upon "preexisting patterns, qualities, and feelings" that ultimately trace to natural, embodied experience?[5]

4. See Richardson 2001: 89.

5. This is not to say that poetry may be defined exclusively as the rupture of consistent con-

In short, if prelinguistic conceptualization is naturally (ontologically) consistent and language is merely instrumental, what motivates the formulation of inconsistent expressions? This is not an idle but an urgent question, for the purposes of a thing, be it matter or mind, doubtlessly inform and constrain its operations.[6] If humans create, consume, and celebrate conceptual inconsistency, as they certainly do, then the science of their cognition needs to explain how and why exactly this is so.

A Darwinian account, literary or otherwise, seems in principle unable to tackle these questions: whereas the ability to imagine alternative *consistent* scenarios would evidently confer a survival and therefore reproductive advantage, the ability to imagine *inconsistent* ones evidently would not.[7] Even if we wish to claim that our capacities for conflictual conceptualization are wholly learned or enculturated, still they remain genuine capacities of our evolved cognitive apparatus, capacities exploitable because possible and possible for specific (and specifiable) architectural and/or functional reasons.

Nor does conceptual metaphor theory assist us here, with its hypothesis of sensory-motor schemata projecting to more abstract domains of knowledge.[8] For there must be intuitional "semantic primitives" (McGlone 2007: 113) in any target domain at which the projections from a given source

ceptualization ("defamiliarization," "estrangement"), only that such rupture is one of its hallmarks. The idea has a long pedigree, dating at least to the Romantics. Recent discussion may be found in the *Poetics Today* special double issue "Estrangement Revisited" (26.4 and 27.1, 2005 and 2006).

6. For a fascinating and strictly evolutionary development of the ancient idea that final causes determine formal ones, see Terrence Deacon and Jeremy Sherman (2007: 20) on "teleodynamics," which they define as a (physical, chemical, biological) system's "tendencies to change with respect to target states, potentialities, represented possibilities, and so on." Johnson (2007: 159) emphasizes a similar point: "Furthermore, this entire process [of organism-environment interaction] is loosely goal-directed and always has a built-in teleological aspect, since organisms have implicit values they are trying to realize (either consciously or unconsciously and automatically)—values such as maintaining homeostasis in their internal milieu, protecting themselves from harm, reproducing, and, in more advanced cases, actualizing their potentialities for growth and fulfillment."

7. See Changeux 2002: 82 ff. on neural "pre-representations," which are selected on the basis of environmental feedback. This feedback loop insures (1) that the nervous system generates *plausible* pre-representations and (2) that inconsistent or environmentally unfit pre-representations are rapidly eliminated and not subsequently regenerated.

8. See, e.g., Johnson's *The Body in the Mind* (1987) and, most recently and specifically on the topic of artistic expression, Lakoff 2006. Johnson (2007: 181n) admits that, while schemata may be necessary to the explanation of feats of human reasoning, they are far from sufficient: "I am not claiming that an image-schema analysis plus conceptual metaphor is sufficient to tell the whole story of human reasoning. A complete account would include . . . the role of pervasive qualities and of emotions and feelings. . . . And . . . it would require an explanation of social interactions, as well as of speech-act conditions and the purposes and goals of inquiry and thought."

domain are aimed, and thus there must be some purposive cognizer whose semantic presentiments solicit the relevant projections and guide them to the targeted conceptualization. Insofar as this targeted intention calls forth those projections, it would (at least by the logic of conceptual metaphor theory) preferentially predict their conceptual consistency.[9] William Blake (1982: 2) raised a related objection to the conceptual metaphor theory of his day:[10] "the desires & perceptions of man untaught by any thing but organs of sense, must be limited to objects of sense." Doubtless, all mammals use body-based schemata in support of their peculiar sorts of consistent (environmentally fit) conceptualization, yet none that we know of mounts thereby to the level of abstract, complex conceptualization that you are displaying just now.[11] Though humans may not be able to convey ideas "save in symbols of time and space" (Coleridge 1958, 2:120), it does not follow that those ideas are the simple product either of such symbols or of what they symbolize (e.g., conceptual structure derived from body-based schemata). Each projection to a new idea is *motivated* somehow by what Samuel Taylor Coleridge (ibid.) calls "a deeply felt interest" and contemporary theorists term a "deep semantic . . . intuition" (Donald 2001: 278) or "semantic primitive" (McGlone 2007: 113). If humans perpetually seek to exceed the bound of established thought, it is not because they have image schemata at their disposal. Schemata may be necessary but hardly sufficient conditions for higher-order conceptualization.[12]

9. This target-directed selection of source structure would appear to be the cognitive correlate of blending theory's "invariance principle": see Turner 1996: 108–9 and Ruiz de Mendoza Ibanez 1998.

10. This is not an anachronism, for here is John Locke (1961 [1690]: 2.10), against whose sensational psychology Blake is specifically protesting: "It may also lead us a little towards the original of all our notions and knowledge, if we remark how those which are made use of to stand for actions and notions quite removed from sense *have their rise from thence, and from obvious sensible* ideas *are transferred to more abstruse significations*, and made to stand for *ideas* that come not under the cognizance of our senses: v.g. to *imagine, apprehend, comprehend, adhere, conceive, instill, disgust, disturbance, tranquillity*, etc., are all words taken from the operations of sensible things, and applied to certain modes of thinking. . . . By which we may give some kind of guess what kind of notions they were and whence derived [i.e., sensible ones, from the senses], which filled their minds who were the first beginners of languages, and how nature, even in the naming of things, unawares suggested to men the originals and principles of all their knowledge." Alan Richardson (2001: 84–87) traces the development of this theory concerning the origin of language and the metaphoric structure of the lexicon through the Romantic period and in contemporary cognitive semantics.

11. Johnson (2007: 92) makes just this point: "My dog, Lucy, has concepts and solves problems, but she lacks the full abstractive capacities that open up the possibility of discovering general explanations of phenomena in the way we humans do."

12. William Keach (1984: 48) traces this perception back through Percy Bysshe Shelley to the philosophers of the Scottish Enlightenment and observes, "The very process by which writers apply figures derived from the material world to mental experiences . . . may betoken acts of consciousness that defy materialist reduction."

Blending theory offers no better account of the targeted intentions that summon its integration networks to their particular operations, and indeed it confuses matters by treating domain-general cognitive functions, such as intentionality and representation, not as blending's motivational and semiotic preconditions, which seems likely, but rather as "vital relations" generated within the blending process itself (e.g., Fauconnier and Turner 2002: 101; for critique, see Brandt 2005; Deacon 2006; Sperber and Wilson 2008).[13] But even granting the underlying drive and capacity to produce representations and generate meanings, we still have to explain in what conditions and by what mechanisms the integration network's adaptive architecture can be compelled to produce conceptually inconsistent results. What enables Coleridge (1958, 2:120), for example, to conclude that "the attributes of time and space," though instrumental to human conceptual and linguistic systems, are nevertheless "inapplicable and alien" to our "modes of inmost being"?[14] Beginning with conceptual and linguistic "inputs" that encode and reproduce (natural, perceptual, memorial, categorical, inflectional, etc.) spatiotemporal structure, what powers and processes could drive a mind toward the evidently "emergent" but apparently[15] inconsistent conceptualization of its own immateriality?

13. Ideas of intentionality and of representation can of course play a representational role in blending networks when specific purposes require, but an *idea* of intentionality or representation is not the same thing as an *act* of intention or representation. The one is a cognitive product, the other a cognitive process (or set of processes).

14. The archskeptic William Drummond, whom Shelley (1965, 10:112) called "the most acute metaphysical critic of the age," puts the point with reference to the containment schema that structures the semantics of *inhere* and *inherent*: "When we are told, that intellectual faculties *inhere* in an immaterial soul, we ought to enquire, what sense can be affixed to the positive assertion? We understand, or believe we understand, what is meant by corporeal substance, and we are accustomed to speak of certain qualities, which are *inherent* in matter. Extension is attributed to material substances, and it seems possible, therefore, at first sight, to speak of things *inherent* in them, without offering any violence to language; but where there is not extension, it is difficult to admit the analogy, or to comprehend how the immaterial qualities *inhere* in the spiritual soul. . . . Where nothing is extended, (it is universally admitted when we speak of the material world,) nothing can be *inherent*, nor can be *contained in* another" (Drummond 1984 [1805]: 8; emphasis added). Though useful conceptually, the containment schema misrepresents mind. What cognitive structure(s) motivate and enable Drummond's insight about the falsity of the containment schema when applied to the immaterial mind? The answer is surely more complex than other (or more primary) image-schemata.

15. I say *apparently* for two reasons. First, Coleridge appears to find inconsistency between spatio-temporal concepts and the "modes of inmost being" they only metaphorically characterize: the "attributes" of the source concepts are accordingly judged to be "inapplicable and alien" to, which is to say inconsistent with, the target concepts. Secondly, however, conceptual metaphor theory, as I discuss in detail in section 3 below, predicts just such transfers from comparatively concrete sources to comparatively abstract targets, and would therefore argue that they are consistent with common practice. But this involves a different definition and judgment of consistency from Coleridge's, which is based not on (assumptions about) frequency but on (assumptions about) ontology.

This essay does not undertake to answer these questions about conceptual conflict and creativity, only to point a way to their answers through the (re)analysis and application of Romantic theory and practice, in which it is "axiomatically" understood that poetry's primary ambition and first recommendation is its ability to surpass horizons of consistent conceptualization and "surprise by a fine excess."[16] In particular, and with direct relevance for the questions at hand, both Coleridge and Percy Bysshe Shelley develop theories of imagination based on poetic evidence of its "vitally metaphoric" qualities (Shelley 1965, 7:111), Coleridge in the specific terms of conflictual metaphor, Shelley in more general terms of conceptual innovation through analogical relation making. The two theories unite, however, in their foregrounding of the *projective processes* at work in creative and conflictual conceptualization rather than of the *specific semantic or representational contents* being worked upon. Because poetry expresses and stimulates the *activity* of imagination, it is unusually revealing (they argue) of the mind's constitutive powers and processes—especially those (I would add) that drive integration networks and metaphoric projections to sometimes surprising and excessive results.

Coleridge (1960, 2:103) defines "the grandest efforts of poetry" exactly in terms of inconsistent conceptualization, "an effort of the mind, when it would describe what it cannot satisfy itself with the description of, to reconcile opposites and qualify contradictions, leaving a middle state of mind more strictly appropriate to the imagination than any other, when it is, as it were, hovering between images." He exemplifies the point through John Milton's (1957: 2.666–70, 248) portrait of Death in *Paradise Lost*, which asks the reader to conceptualize a shape without shape, a substance without heft or volume:

> The other shape,
> If shape it might be call'd, that shape had none
> Distinguishable in member, joint, or limb,
> Or substance might be call'd, that shadow seem'd,
> For each seem'd either . . .

In Coleridge's view, the passage yokes together but does not "reconcile" conceptual "opposites" and restlessly but unsuccessfully "qualifies" the resulting "contradictions." Insofar as it challenges and even defies consistent mental representation, Milton's depiction of Death frustrates and exposes the normally effortless and therefore transparent "working" of

16. John Keats (1935: 108), letter to John Taylor, February 27, 1818. Cf. Emily Dickinson's poetic touchstone: "If I feel physically as if the top of my head were taken off, I know that is poetry" (Higginson 1891).

imagination: "the imagination is called forth, not to produce a distinct form, but a strong working of the mind, still offering what is again repelled, and again creating what is again rejected" (Coleridge 1960, 2:103).

Shelley (1965: 2.4.3–8, 2.218) singled out the same passage from Milton for that most sincere form of flattery, imitation,[17] in Asia's astonished representation of Demogorgon in *Prometheus Unbound* as

> a mighty darkness
> Filling the seat of power, and rays of gloom
> Dart round, as light from the meridian sun,
> Ungazed upon and shapeless; neither limb,
> Nor form, nor outline; yet we feel it is
> A living Spirit.

To analyze Shelley's Miltonic representation as blending theory would propose[18]—in terms of incompatible image schemata projecting to a consequently inconsistent or disintegrated blend—would be to paraphrase Coleridge but lose his dynamic point. True, in Shelley's conflictual metaphor gloom emanating from a central darkness is compared to rays of light emanating from the sun at high noon, whose globe cannot be gazed upon directly and thus remains "shapeless," like the gloom-haloed darkness it represents. Because the semantic structures of light and dark are conventionally opposed—that is, light = [+radiant], [+source], [+refractive], [etc.], while dark = [-radiant], [-source], [-refractive], [etc.]—they superpose uneasily and inconsistently in conceptualization. Consistent in their opposition, the concepts of light and dark are rendered inconsistent by their metaphoric identification. The difficulty is compounded by the framing Miltonic antithesis of embodiment and shapelessness, according to which Demogorgon substantially "fill[s] the seat of power" and yet possesses "neither limb, / Nor form, nor outline." While shapelessness is conceptually consistent with both light and dark, none of the three is consistent with embodiment or, more precisely, with the image and event schemata invoked by "Filling" and "seat."[19]

But as Coleridge (1960, 2:103) insists, the real value of such verses lies not in their conflictual representation but in the cognitive *frisson* generated by their image-schematic (or "topological") "clash":[20] "As soon as

17. The allusion is noted in Reiman and Powers 1977: 171n8.

18. See, e.g., Fauconnier and Turner 2002: 340–41.

19. Here's a more compressed and perhaps more obvious version of the same conflicted metaphor: *darkness took a seat in the sky*.

20. *Topological* and *clash* are from Fauconnier and Turner 2002: 131, 329. Gilles Fauconnier and Mark Turner (ibid.: 131) define conceptual "clash" as follows, associating it directly to creativity: "A double-scope network has inputs with different (and often clashing) organizing frames as well as an organizing frame for the blend that includes parts of each of those frames and has an emergent structure of its own. In such networks, both organizing frames make central contributions to the blend, and their sharp differences offer the possibility of rich clashes. Far from blocking the construction of the network, such clashes offer challenges to the imagination; indeed, the resulting blends can be highly creative." Here, creativity is characterized as the *result* of the construction of the network, a *product* of clashing inputs that the cognizer must have summoned to the network for (comparatively) noncreative reasons. As discussed below, the problem here is that the blending model confuses the semantic and structural *components* at play in creative cognition with the cognitive *processes* that support such play.

21. Richardson (2010) dubs this "sublime feeling of the unimaginable" "the neural sublime," tracing its development in eighteenth-century British aesthetics and its wide dissemination in Romantic theory and practice.

[the mind] is fixed on one image, it becomes understanding; but while it is unfixed and wavering between them, attaching itself permanently to none, it is imagination." Exactly this restless "wavering" between inconsistent imagistic alternatives is the intentional and representational object of these "unfixed" and unfixable blends. As I have argued elsewhere (Bruhn 2009a), such exemplarily poetic or conflictual blends should be of special value to cognitive theorists because they make perceptible the normally unproblematic and therefore imperceptible workings of imagination. In poetry's "grandest *efforts*," imagination is *caught in the act of making* a representation (or of building an integration network), and one experiences (however fleetingly) "the substitution of a sublime feeling of the unimaginable for a mere image" (Coleridge 1960, 2:103).[21]

Coleridge's insights about poetry's distinctive capacity to prime and disclose imaginative activity through inconsistent conceptualization are echoed and generalized in Shelley's *Defence of Poetry* (1821). Shelley (1965, 7:111) defines the creative imagination as a "vitally metaphorical" power that "marks before unapprehended relations of things and perpetuates their apprehension" through poetic or other kinds of expression. This definition readily applies to the Miltonic and Shelleyan verses we have just examined: they mark and perpetuate nonoppositional relations between concepts, such as "light" and "dark" or "substance" and "shadow," whose routine semantic opposition is a product of consistent conceptualization (i.e., the always already apprehended relations of things, the conceptual background against which "before unapprehended relations" stand out as "new" or, in John Keats's phrase, as surprisingly excessive). By creating unprecedented and "vitally metaphorical" links between disjunctive ideas, poetry continuously "enlarges the circumference of imagination by replenishing it with thoughts of ever new delight, which have the power of attracting and assimilating to their own nature all other thoughts, and which form new intervals and interstices whose void forever craves new food"

(ibid.: 118). Shelley's homage to Milton is a case in point. Shelley imaginatively construed, or "digested," Milton's unprecedented and indeterminate image of Death, "that shape had none / Distinguishable in member, joint, or limb"; and this Miltonic "thought of ever new delight" "attract[ed] and assimilate[ed] to [its] own nature" Shelley's subsequent "thought" of Demogorgon, who accordingly "appears" with "neither limb, / Nor form, nor outline." In Shelley's imagination and that of the reader who apprehends his allusion, there now exists a "before unapprehended relation" between Demogorgon and Death, which itself stands ready to attract and assimilate still other, hitherto unrelated thoughts, thereby forming new relations, "new intervals and interstices," in an ever-expanding network of conceptual relations that perpetually surpasses any established horizon of conceptual expectations.[22]

Shelley's analogy-hungry imagination, which "forever craves new food" in the form of new relations,[23] counterbalances an opposing tendency of the human mind to abstract ("compress" in blending theory) imagined relations into schematic categories and thereby lose their "vitally metaphorical" structure and potential. Linguistic entrenchment or conventionalization provides a familiar example of such abstraction and loss: think of someone explaining the relation that underlies and motivates an idiom you have used for years in perfect ignorance of its conceptual-relational origin (e.g., for me, "kicked the bucket," "blockbuster"; see Bowdle and Gentner 2005). Along with cognitive grammarians, Shelley correlates this kind of lexicalization and related processes of grammaticalization with conceptual powers based in perception, memory, and categorization but with an important reservation on behalf of the "nobler purposes of human intercourse." "In the infancy of society," Shelley (1965, 7:111) writes, "language itself is poetry" insofar as it "marks the before unapprehended relations of things and perpetuates their apprehension, until the words which represent them become, through time, signs for portions or classes of thoughts instead of pictures of integral thoughts; and then, if no new poets should arise to create afresh the associations which have been thus disorganized, language will be dead to all the nobler purposes of human intercourse." The abstraction of "pictured" and "integral" (i.e., actively imagined) conceptual relations into stable categorical forms involves a loss of information about those relations (including any "sublime feelings" that their contemplation may arouse). The (re-)creative power of the relational or analogical

22. Thus Wright 1970: 20: "Metaphor is a direct agent of human knowledge which picks out and perpetuates the apprehension of things or relations of things otherwise invisible to or overlooked by the human mind at any point in its individual or cultural history. In this sense metaphor is both the record and the vehicle of human discovery."

23. For an extended discussion of Shelley's analogical theory of mind, see Bruhn 2008b.

imagination ceaselessly works to repair or replace the imagined "associations" that are "disorganized"—which is to say, fragmented and schematized ("portions and classes of thought")—through linguistic formalization and conventionalization. Short of such imaginative (re)creation, the language system would serve only to impoverish and inhibit rather than refresh and inspire conceptualization.[24]

As the contrasting metaphors of "*vitally* metaphorical" and "*dead* to all nobler purposes" suggest, Shelley's interest here, like Coleridge's above, is in ongoing imaginative processes rather than in fixed and finished representations. His source is almost certainly the famous thirteenth chapter of *Biographia Literaria*, where Coleridge (1958, 1:202) insists that imagination "is essentially *vital*, even as all [imagined] objects (*as* objects) are essentially fixed and dead." Shelley (1965, 7:342) puts this crucial cognitive point in specifically dynamic terms in his unfinished "Speculations on Metaphysics": "It has been said that mind produces motion; and it might as well have been said, that motion produces mind."[25] Shelley's startling hypothesis can be paraphrased as follows: though we tend to think of a stable mind (cognitive apparatus) generating moving images and ideas, it is at least as likely that a moving or dynamic mind produces images and ideas, some of which deceptively appear to be "stable" (like the image of a brain or the concept of "mind").[26]

24. See Wright 1970: 30 and Keach 1984: 7–8. Stuart Peterfreund (2002: 30 ff.) discusses the formalization process as a shift from metaphoric to metonymic relations and dubs the conceptual result "petriarchy." Contrast Shelley's theory of conventionalization to that advanced under the rubric of "coded meaning" in Coulson and Oakley 2005. Shelley would insist that entrenched meanings are entrenched ("dead") precisely to the extent that the underlying associations or mappings have been *lost* rather than, as Seana Coulson and Todd Oakley would have it, coded in a compressed but always decompressable blending network. If mappings aren't lost, why doesn't the persistent network constrain against mixed and other inconsistent metaphors, for example, Gerard J. Steen's (2007: 355) conception of a "seminal window"?

Shelley's hypothesis of linguistic conventionalization as the degradation of relational associations has contemporary parallels in the career of metaphor, graded salience, and relevance theory models of metaphor understanding (Bowdle and Gentner 2005; Giora 2003; Sperber and Wilson 2008). Shelley too predicts that routine production and comprehension of conventionalized metaphoric words and phrases typically will *not* involve the kind of structure mapping (or relation making) across conceptual domains that *is* predicted in conceptual metaphor and blending theories. Following up Peterfreund's lead, we might expect instead only a mapping from the linguistic form to a given conceptual domain (or vice versa).

25. Shelley would have been spurred to such considerations by his reading in Drummond's *Academical Questions* (1984 [1805]). Drummond (ibid.: 169 ff.) provides a lengthy analysis of the genesis of the first idea in Shelley's formulation, that "mind produces motion," in ancient philosophy as well as a series of suggestive hints toward the second, that "motion produces mind" (or, more properly, concepts and representations) (ibid.: 15, 76, 160).

26. Unbeknownst to Shelley, Coleridge had anticipated this idea in a letter in the 1790s; see Richardson 2001: 10–51.

The relevance of the insight to contemporary cognitive discussion should be immediately apparent.[27] Blending theory, for example, persistently characterizes its network model of conceptual integration as properly and effectively "dynamic": its constituent "mental spaces" are supposed to be "built up dynamically in working memory" and "modified as thought and discourse unfold"; the network processes of "composition," "completion," and "elaboration" are all hypothesized to operate on the fly in cognition and to yield "emergent" and often unprecedented and unpredictable meanings (Fauconnier and Turner 2002: 40, 42–43, 89). Unfortunately, the familiar circles-and-arrows cartoons of "mappings" between mental spaces,[28] which are filled with (predetermined, often highly selective) representations, capture almost nothing of that dynamism. Indeed, they sometimes confuse it in just the philosophically backward manner intimated by Shelley: they specify that the mind produces motion *within* the blend but comparatively neglect (in the model and in discussion) the larger cognitive motion within which each and every blend arises. Thus Mark Turner (2006a: 99–102) speaks of the achieved "static" blends of visual art—as though the cognition of such a blend, either in production or reception (the only places it really exists *as* cognition), could ever be stilled—and contrasts them with the kinds of dynamic images at work in the Buddhist monk and other thought experiments. For instance, of the "Hicham el-Guerrouj" blend of historical racers (in which one imagines a race held among the fastest mile runners from six successive decades and won by el-Guerrouj, who broke the world record in 1999), Turner (ibid., 100) remarks: "There is emergent dynamic structure in this compressed blend—namely, structure that cannot be found in any of the inputs: the blend is a simulation of a mythic race between legendary competitors, most of whom never in fact raced against each other." True, one may "simulat[e] a mythic race" in conception, but that "emergent dynamic structure" or *represented motion* is not the same thing as the dynamic structure of cognition or *imaginative motion* that produces it. This dynamic activity of imagination that produces mental representations should not be confused with representations that it produces.

Gilles Fauconnier and Turner (2002: 108) themselves put their finger on the problem, naming it "the Eliza effect" after a computer program that could generate strings of "meaningful" forms:

27. See Michael Spivey (2007: 7): "In a nutshell, the message of this book [i.e., his own, *The Continuity of Mind*] is that the human mind is constantly in motion."

28. As Sternberg (2009: 493n32) has pointed out, the metaphor of "mental *spaces*" is just "the wrong figure for all time-related, let alone time-dominated, objects, aspects, imperatives, resources, processes, [or] constructs."

> The Eliza effect leads us to compress . . . the products of imagination with the processes that produce them, leading us to think that meaning and imagination are just a matter of the combinations of forms that we can apprehend in consciousness. . . . The main obstacle to the launching of the scientific study of blending is the stultification of the Eliza effect, which persistently hides from view the important imaginative operations to be explained.

A blending diagram, which invariably specifies the representational "products of imagination" but schematizes "the processes that produce them" into simple lines terminating in arrowheads, seems to reproduce rather than stultify the Eliza effect. To the extent that representational or blended meanings are in practice (which is their only actual mode of existence) infinitely variable and unpredictable, they are theoretically unhelpful—what we want to understand is how they are produced. Again, blending theory says so: "Meanings themselves are the imaginative products of blending, whether simple or complex, and are not predictable from the forms used to evoke them. The mapping schemes, by contrast, *are* predictable from the language forms used to evoke them" (ibid.: 147). The assumption here is that "language forms," especially "closed-class items," such as prepositions, pronouns, inflections, and spatial and temporal adverbs, grammaticalize and "prompt for mapping schemes" (ibid.: 190); therefore those mapping schemes may be discovered by the (more or less) systematic study of such forms. But the circular logic of this procedure winds up confusing causes and effects, cognitive processes with the linguistic and mental representations they operate upon. Language forms describe relations among *represented* entities and events; what happens in and to such representations is not the same thing as what happens in and to the mind that makes them. The *cognitive* mapping schemes that Fauconnier and Turner seek to predict, those which drive and effectively *are* the hypothesized "conceptual integration network," must preexist whatever *representational* forms they activate and dynamically transform, whether conceptual, imagistic, symbolic, or otherwise. Strictly speaking, mapping and projection do not operate "across" or "between" "mental spaces"; they are not, as cognitive phenomena, the particular transformations operating over specific mental representations (or blends) but rather the first cause or *teleodynamic*[29] of conceptual transformativity itself.

The Shelley scholar Jerrold E. Hogle (1988: 43) dubs this cognitive "*primum mobile*" the "transpositional-relational drive" and describes it, in terms adopted from the *Defence* (Shelley 1965, 7:118; analyzed above), as "the self-altering and perpetual crossing of intervals" that "is prior to par-

29. See note 6.

ticular thoughts and yet the mode of their operation" (Hogle 1988: 10). The critical problem for blending theory is how to solicit this preconceptual and nonrepresentational motion ("prior to . . . thoughts and yet the mode of their operation") into introspective and/or experimental view for verification and further analysis. Coleridge, as we have seen, suggests recourse to "the grandest efforts" of poetry, in which conceptual conflict provokes and gives access to the otherwise inaccessible operation(s) of imagination. In the spirit of Coleridge's claim, the rest of this essay advances a careful analysis of Shelley's "To a Sky-Lark" (1820) in light of the description and evaluation of its analogical poetics by four eminent literary critics. The brief critical survey will demonstrate and characterize the conceptually challenging and unusually dynamic cognitive effects stimulated by Shelley's verse (section 2). Armed with these literary-critical "hypotheses" concerning the poem's peculiar effects of representational "evanescence" coupled with a preconceptual sensation of imaginative motion (what Coleridge called "a sublime feeling of the unimaginable [substituting] for a mere image"), I will turn to the poem itself and account for these effects by analyzing its "vitally metaphorical" and strategically inconsistent semantic structure (section 3). In conclusion, I will suggest that, so analyzed, the "transpositional-relational" or analogical poetics theorized in *A Defence of Poetry* and enacted in "To a Sky-Lark" may serve as a hypothetical spur and even experimental resource for cognitive research into the projective processes stipulated by theories of conceptual metaphor and conceptual blending.

2. Processing Conflicts: Converging Evidence from the Literary-Critical Tradition

I begin with four critical analyses that document the conflict-producing and process-revealing cognitive effects of Shelley's poetics, especially as enacted in "To a Sky-Lark."[30] My focus on early twentieth-century readings—by T. S. Eliot, William Empson, F. R. Leavis, and Gaston Bachelard—may be justified not only in terms of their authors' eminence and influence but also by their critical distance from the intellectual projects of both Shelleyan Romanticism and contemporary cognitivism. Their respective slants, so to speak, are cut according to other biases (modernist, pragmatic, phenomenological). This by no means guarantees their interpretive accuracy or descriptive objectivity, only a certain degree of

30. I am grateful to Catherine Runcie (1986) for reminding me of the modernist flap over Shelley's "Sky-Lark." For details, see Woodring 1960.

impartiality with respect to the cognitive-Romantic analysis I mean to advance. Furthermore, though divided about the specific meanings and final value of Shelley's poem, the selected critics offer remarkably convergent accounts of what might be called its *moving conceptual inconsistency*.

The first account is from Eliot (1929: 135), who pointedly remarks that "in 'The Skylark' there is no brain work. For the first time perhaps in verse of such eminence, sound exists without sense." Could Eliot be praising Shelley with frank damnation? (Shelley's speaker, after all, aspires to the same pitch of "harmonious madness" [line 103] that he envies in the song of the lark.) This suspicion is disconfirmed at once, and the precise meaning of "no brain work" and "without sense" follows shortly thereafter. Eliot objects specifically to the poem's fifth stanza, in which Shelley develops a simile to describe the "unseen" lark's still-audible "shrill delight":

> Keen as are the arrows
> Of that silver sphere,
> Whose intense lamp narrows
> In the white dawn clear
> Until we hardly see—we feel that it is there.
> (20–25)[31]

"I should be grateful," Eliot (ibid.: 135–36) writes,

> for any explanation of this stanza; until now I am still ignorant to what Sphere Shelley refers, or why it should have silver arrows, or what the devil he means by an intense lamp narrowing in the white dawn; though I can understand that we could hardly see the lamp of a *silver* sphere narrowing in *white* dawn (why dawn? as he has just referred [in the previous stanza] to the pale purple even). There may be some clue for persons more learned than I; but Shelley should have provided notes.

Eliot (ibid.: 136–37) finds that Shelley's verse, here as elsewhere, defies sense-making efforts because it fails to offer "precise objects for contemplation."

Within a matter of years, we find Leavis, in *Revaluation: Tradition and Development in English Poetry* (1936), seconding and extending Eliot's criticism. Like Eliot, who is "still ignorant" as "to what . . . Shelley refers," Leavis (ibid.: 204–5), speaking of "Ode to the West Wind" (1819), confesses that he has read, memorized, even potently felt the poem without in fact understanding it: "The sweeping movement of the verse, with the accompanying plangency, is so potent, as many can testify, it is possible to have been for years familiar with the Ode—to know it by heart—without asking the obvious questions," for example, "In what respects are the 'loose

31. Throughout this essay, "To a Sky-Lark" is quoted from Shelley 1965, 2:302–5.

clouds' like 'decaying leaves'?" Leavis (ibid.: 206–7) raises a series of such questions concerning the grounds and aptness of Shelley's metaphors in order to object, as Eliot did, to an "essential trait of Shelley's: his weak grasp upon the actual." This "induces . . . a kind of attention that doesn't bring the critical intelligence into play: the imagery feels right, the associations work appropriately, if (as it takes conscious resistance not to do) one accepts the immediate feeling and doesn't slow down to think." When one finally *does* consciously resist the "sweeping movement" of the verse and takes critical care, Leavis suggests, one realizes that in previous, less considered readings one had read right through the welter of metaphors and similes without unpacking their grounds and relations. These grounds and relations being in many cases indeed far to seek, Leavis (ibid.: 206) faults Shelley's verse in toto for "a general tendency of the images to forget the status of the metaphor or simile that introduced them and to assume an autonomy and a right to propagate, so that we lose in confused generations and perspectives the perception that was the ostensible *raison d'être* of the imagery." "To a Sky-Lark" is particularly egregious in this respect, "a mere tumbled out spate . . . of poeticalities, the place of each one of which Shelley could have filled with another without the least difficulty and without making any essential difference" (ibid.: 215).

Leavis's characterization of Shelley's confusingly generative metaphoric style, in which each succeeding vehicle of comparison "assume[s] an autonomy and a right to propagate," is no doubt informed by Empson's (1955 [1930]: 182) earlier analysis of "To a Sky-Lark" to illustrate the fifth of seven types of ambiguity, that of "the short-circuited comparison." In response to Eliot's queries about the meaning of the poem's fifth stanza, Empson (ibid.: 178–79) offers the following conjectures as to the intended relation of "the arrows" and the "silver sphere":

> Of the meanings of *arrows* those involving a series of shots may seem less suited to the *moon* than to the *star*, as the moon does not twinkle; but they are helped out [in the subsequent stanza] by the word *rains*, by the idea of the moon suddenly emerging from the cloud to give a brief overwhelming illumination, and by the idea of Diana as the huntress. This last, indeed, may be regarded as the point of the new simile; her beauty is too *keen* and too unattainable, so as to destroy the humanity which apprehends it. And the transition from one simile to another itself produces an effect which must be conceived in terms of this belief; one is forced to swoon, in an ecstatic and febrile way, not rooted upon the earth, from flower to flower, and to find all exquisite and unsatisfying.

Empson's comments are especially valuable for their emphasis on the cognitive consequence of the poem's "exquisite and unsatisfying" metaphoric

structure. The rapid "transition from one simile to another produces an effect" that Empson likens, in a telling simile, to "belief" in Diana's beauty, "too keen and too unattainable" to be otherwise "apprehend[ed]." In lieu of a fully figured representation, the poem offers proliferating "meanings that are not so much united as hurried on top of each other," such that "the reader will not easily understand the ideas which are being shuffled, and will be given a general impression of incoherence" (ibid.: 180, 181). The "hurried" sequence of ever-new but conceptually "incoherent" relations—a shrill note likened to keen arrows, which are themselves like moonlight, which is like rain but also like the huntress whose beauty figures the poem's unapproachable object, and so forth—"force[s]" the reader into a heightened ("ecstatic and febrile") state of cognition akin to a "swoon."[32] Empson's metaphor accurately characterizes the cognitive effect that Shelley aims at and apparently achieves: in a swoon one experiences not clear and distinct mental representations but rather an overpowering sensation of mental motion dissociated from imagery or idea.

Despite local interpretative differences, the three critics are united in their negative evaluation of the poem, one based, moreover, on a poetics diametrically opposed to that spelled out in Shelley's *Defence* and presumably enacted in "To a Sky-Lark." To demand "a strong[er] grasp upon actualities" and "a firmer stay to fancy" (Leavis 1936: 252, 261) is to prescribe exactly the kinds of conceptually consistent imagery and metaphor that Shelley evidently intends, with his "Sky-Lark," to outsoar.[33] As set out in *A Defence of Poetry*, Shelley's (1965, 7:137) poetics aims not to represent fixed concepts or established meanings (including images) but rather to strip away that "veil of familiarity" and so to reveal the very process of thought in the act of conceptualizing: the invisible motion that produces mind and is the "naked" "spirit of its forms." Shelley therefore "shuffles" (in Empson's apt metaphor) among multiple, incompletely realized metaphors (both consistent and conflictual), presumably with the exact intention of creating the conceptual "incoherence" of which all three accuse him.[34] By supplanting in quick and dizzying succession each and every

32. Cf. Leavis 1936: 167 on "Shelley's eager, breathless hurry—his verse always seems to lean forward, so that it must run in order not to fall." Jean Hall (1980: 44), in *The Transforming Image*, likewise acknowledges the "sense of wild and uncontrolled movement" in Shelley's verse, a "dizzying motion which destroys coherence," but she characterizes it more approvingly in terms of his transformational poetics that "opts for not here but there, not the object but its potential, not the real but the ideal."

33. As I suggest in Bruhn 2005, Shelley is being judged by imagist standards that may be traced to Keats's poetics.

34. Keach (1984: xv) prefers to speak of "Shelley's multiply coherent simile," but even he would have to admit that the coherent interpretations he has achieved have been hard-won

metaphor that suggests itself as a "momentary stay" against conceptual "confusion" (to adopt the words of another modernist poet-critic), Shelley hopes to substitute (in the words of a Romantic one) "a sublime feeling of the unimaginable for a mere image" (Coleridge 1960, 2:104).

"A sublime feeling of the unimaginable" is just what the poem appears to stimulate in Bachelard, who therefore makes it the centerpiece of his *L'air et les songes: Essai sur l'imagination du mouvement* (*Air and Dreams: An Essay on the Imagination of Movement*), from which my epigraph is taken. For Bachelard (1943: 8), "To a Sky-Lark" is an unparalleled exemplar of the "aerial" imagination, which consists, "above all," in "a kind of spiritual mobility [mobilité spirituelle]."[35] The poem's strategy, according to Bachelard (ibid.: 62–63, 73), is to "evaporate" or "sublimate" each successive image it offers and thereby effect a "divorce between the dynamic image and the formal image," that is, between the pre-representational "mobility" of imagination and the representations it continuously ("en un progrès sans fin") creates and replaces. "To a Sky-Lark" is thus an exemplary instance of what Bachelard (ibid.: 8, 104) terms "pure poetry [la poésie pure]," the "pure object" or imperative of which is "to transcend the laws of representation" and thereby to uncover the sheer dynamism of imagination itself, along with "the primal desire for novelty in the human psyche."

Bachelard's reflections return us to the cognitive problems with which we began, those of conceptual innovation and creativity. They suggest that the *moving conceptual inconsistency* of Shelley's "Sky-Lark"—its moving or unfolding sequence of inconsistent images and metaphors that mobilizes the reader's imagination into self-revealing activity—has at least a theoretical bearing on their solution. I take up this suggestion in the following section by providing a detailed analysis of the poem's opening metaphors and the projective violations they entail. These violations, as the testimonies of all four critics confirm, challenge consistent conceptualization and prime an "immediate feeling" (Leavis), a "swooning" apprehension (Empson), or a "dynamic image" (Bachelard) of the imaginative processes that underlie it.

after the fact. In characterizing "the astonishing Shelleyan abundance of imagery that . . . initiates such poems as 'To a Skylark,'" Hall (1980: 33–34) more accurately describes its potential for, rather than achievement of, "larger coalescences": "We may be tempted to say it all is too much, that such a superabundance of random comparisons can lead only to confusion. And so it does—at first. However, what this fecundity produces is a large poetic field containing many small images but no overall picture. What the copious fragmentary imagery allows for is the possibility of a large coalescence."

35. All translations from Bachelard are mine.

3. Conflict Analysis: Poetic Deviance as Experimental Device

As the notes to the foregoing section have already suggested, this quartet of modernist voices is hardly alone in characterizing Shelley's poetics in the related terms of metaphoric transformation and imaginative dynamism. In *Shelley's Style*, for example, William Keach (1984: 120, 123), echoing Bachelard particularly, discusses "To a Sky-Lark" as a set piece of conceptual "evanescence," "a complex movement of vanishing and transmutation" that "re-enacts the mind's evanescent access to power or beauty." This "power or beauty" is the underlying, normally invisible "movement" of mind—"enacted" by the poet, "re-enacted" by his readers—a movement that creates and ceaselessly transforms representations of the poem's merely *momentary* metaphoric ideas and images. As Keach (ibid.: 119–20) puts it, Shelley strives "to reflect the mind's evanescent moments of experience by articulating them in figurative language which is analogously evanescent. . . . The language of [Shelley's] poetry proceeds from and returns us to the elusive flow of experience."

How it does so is the explanatory burden of *Shelley's Style*, which analyzes Shelley's verse in light of his distinctively "cognitive . . . account of metaphor" (ibid.: 7). Thus when Keach refers to an "evanescent" figurative language that reveals the underlying "power and beauty" of imagination, he is in effect paraphrasing Shelley's (1965, 7:117) assertion in the *Defence*, namely, that in works of poetic genius "the beauty of [our] internal nature cannot be so far concealed by its accidental vesture [i.e., the language of verse], but that the spirit of its form shall communicate itself to the very disguise, and indicate the shape it hides from the manner in which it is worn." Keach sets out to describe just how the invisible "spirit" of our "internal nature" may "communicate itself" through language forms that at once "hide" and display it, and he develops his answer with particular reference to Shelley's (ibid., 2:172) observation, in the preface to *Prometheus Unbound*, that the signal feature of his poetic "manner" or style is that it deploys "imagery . . . drawn from the operations of the human mind." Noting that this expression upsets a commonplace definition of imagery as "an object or quality of sense perception," Keach (1984: 44–45) tracks this peculiarly *insensible* imagery of "mental actions and processes" through many dimensions of Shelley's style. But he finds its "most explicit form" in metaphoric expressions—for example, "flowers as soft as thoughts of budding love" (*Epipsychidion* l.328)—in which "Shelley reverses the usual figurative function of imagery and makes a mental state or operation a vehicle in a figure whose tenor is sensory and physical." In doing so, Shelley flouts what present-day cognitive theorists have dubbed "directionality con-

straints" on metaphoric projections (Johnson 1987: xv; Shen 1995), which (inter alia) express a deep-seated cognitive preference for metaphors that project from (comparatively) concrete vehicles (or sources) to (comparatively) abstract tenors (or targets). Shelley's opposite strategy is therefore radically counterintuitive, and that is its virtue: by inverting and upsetting a cognitively entrenched preference for concrete → abstract metaphoric projections, Shelley contrives to effect that "strong working of imagination" that Coleridge too defined as the essence of poetry.

Following Keach's (1984: 79) lead[36] but adapting an apparatus developed in cognitive metaphor theory, this final section will seek to explain how "Shelley's extreme figurative crossings and restructurings" in "To a Sky-Lark" "challenge us to read with an expanded sense [or heightened awareness] of the mind that finds or makes meaning." Through careful analysis of the poem's systematic violations of directionality constraints, I propose (a) to elaborate upon Keach's insights and supplement our understanding of Shelley's "cognitive" poetics; (b) to offer a better (clearer, more exact) account of the textual motivation for the sometimes bewildered, sometimes bewildering critical claims about conceptual inconsistency and imaginative mobility, reviewed in the preceding section; (c) to show that the data of Shelley's poem deviate significantly from those summarized in the cognitive literature; and (d) to suggest accordingly that these and related verses, and the analogical poetics[37] that supports them, may contribute in productive ways to cognitive research programs, especially those concerned with the source(s) and structure(s) of the projective processes stipulated in conceptual blending theory.

36. Empson (1955 [1930]: 181) too notices Shelley's directionality deviances, but he characterizes them as hasty faults rather than deliberately transgressive constructions: "One might regard as an extreme case of the transitional simile that 'self-inwoven' simile employed by Shelley, when not being able to think of a comparison fast enough he compares the thing to a vaguer or more abstract notion of itself, or points out that it is its own nature, or that it sustains itself by supporting itself." Mary Shelley, who presumably had it from the horse's mouth, sides with Keach: "More popular poets clothe the ideal with familiar and sensible imagery. Shelley loved to idealize the real—to gift the mechanism of the material universe with a soul and a voice, and to bestow such also on the most delicate and abstract emotions and thoughts of the mind. Sophocles was his great master in this species of imagery" (Shelley 1965, 2:270). For early nineteenth-century statements of the directionality and saliency constraints on metaphor, see Drummond 1984 [1805]: 310, 313–14, which Shelley knew and admired (see note 14).

37. For reasons that I spell out in greater detail in Bruhn 2009b, I agree with the terminological choice of Noel Dorman Mawer (1984: 220): "As the preface to *Prometheus Unbound* suggests, what Shelley generally means by 'metaphor' is 'analogy.' For him, poetry reveals 'the permanent analogy of things' . . . : permanent, I take it, because it is common to the original perception of all of us. What this most often means is that analogy is rooted in the permanence of change; it is the seeing of resemblance that exists among various processes. . . . Shelley in poetry attempts to create metaphors which will act as verbs, in order to mirror the permanent enduring analogies: the analogies of motion, of change, of process." For cognitive-scientific arguments about the correlation of metaphor and analogy, see Gentner and Markham 1997 and Gentner et al. 2001.

As argued in metaphor studies since at least the late 1970s (Tversky 1977; Ortony 1979; Lakoff and Johnson 1980), the similarities that ground metaphors reveal two kinds of asymmetrical distribution. Accordingly, source concepts tend to be at least as *concrete* as the target concepts to which they project: the metaphor of "a bump in the relationship" is thus more likely to be produced and easier to construe than that of "a relationship in the bump." Moreover, the given semantic "feature" or "predicate" which is projected in a metaphor tends to be at least as *salient* in the source concept as it is in the target concept: the metaphor of a "forked tongue" is thus more likely to be produced and easier to construe than that of a "tongued fork" (for a one- or two-pronged fork). Yeshayahu Shen (1995: 258) summarizes these arguments in axiomatic terms of "directionality constraints" on metaphoric cognition as follows:

A. Whenever the two terms of the metaphor differ in their respective level of abstraction, the direction of mapping is from the concrete to the abstract, and not vice versa.
B. When the two terms do not differ with respect to the concrete-abstract scale, but do differ in their respective degree of salience relative to the shared (explicit or implicit) category [i.e., the ground of the metaphor], the direction of mapping is from the more salient to the less salient, and not vice versa.

For conceptual metaphors in general, these constraints are supposed to be firm, as one of the theory's founding fathers repeatedly insists: "The most sweeping claim of conceptual metaphor theory is that what we call abstract concepts are defined by systematic mappings from body-based, sensorimotor domains onto abstract target domains" (Johnson 2007: 177); "concrete bodily experience not only constrains the nature of the 'input' to the metaphorical projections but also the nature of the projections themselves, that is, the kinds of mappings that can occur across domains" (i.e., saliency constraints) (Johnson 1987: xv). Proceeding on these assumptions, Shen (1995, 2007) investigates to what extent and in what specific ways the metaphors in poetic discourse violate these regulative norms. His analysis is elegant in its simplicity and surprising in its findings, doubly so when matched against specific results for Shelley's poem. To anticipate: in corpus-based studies of novel poetic metaphors, Shen (2007: 172) has found "robust" statistical evidence that, like their conventional counterparts, novel metaphors tend to conform to directionality constraints, exhibiting the most

deviant "second-degree violations" only about a tenth of the time. In significant contrast, the opening six metaphors of "To a Sky-Lark" register on the same scale at three to four times that rate, a statistical anomaly that could hardly be accidental. As we shall see, at the same time that Shelley willfully insists on constraint-violating projective structures, he persistently selects conceptually inconsistent domains as sources and targets to be related by those structures. The combination of directional violations with conceptual inconsistencies produces exactly that effect of "dizzying motion that destroys coherence" (Hall 1980: 44) attested by sympathetic and unsympathetic readers of the poem alike.

First, a bit more detail about the cognitive hypotheses of directionality and constraint in metaphoric projection, for they yield an analytic that can help specify the structural deviance and conceptual challenge of Shelley's metaphorics. In the projection of conceptual structure from a source domain to a target domain, there are four directional options for each of the two projective dimensions defined above, abstractness and saliency. With respect to abstractness, the possible source-to-target projections are concrete → concrete, concrete → abstract, abstract → concrete, abstract → abstract. With respect to saliency, which refers to the relative prominence of the projected feature(s) in the preexisting semantic structure of the two domains (i.e., in older terminology, the specific "ground" of the metaphor in question), the possible source-to-target projections are salient → salient, salient → nonsalient, nonsalient → salient, nonsalient → nonsalient. These eight combinations yield four "standard" and four "nonstandard" projections,[38] and Shen subdivides the latter four into two different "degrees" of violation.[39] First-degree violations, that is, the abstract → abstract and nonsalient → nonsalient projections, "do not fully conform to standard directionality" but "do not completely invert" it the way that second-degree (i.e., abstract → concrete and nonsalient → salient) violations do (Shen 1995: 265).

To what extent does the specifically *poetic* use of metaphor either obey or violate these directionality constraints, theorized on the basis of conventional conceptual metaphors? To answer this question, Shen has undertaken corpus-based study of poetic similes of the form "*A* is like *B* in the sense of *C*" (e.g., the first simile in "To a Sky-Lark," in which the skylark is said to be "like a cloud of fire" in "springing" "from the earth"). Shen (2007: 172) claims to have found "a robust pattern . . . according to which

38. "Standard" or not as judged by their relative frequency in selected corpora of conventional metaphors.

39. "Degrees" referring to relative distance from the standard (statistically most frequent) kinds of projection involving a concrete and/or salient source.

canonical similes [i.e., ones exhibiting standard directionality] are much more frequently used than non-canonical ones, across languages, historical periods, genres and poetic schools." In other words, in terms of projective structure, even novel poetic similes tend to conform to directionality constraints, just like conventional conceptual metaphors. Moreover, according to Shen's data, the comparatively rare instances in which poetic similes do deviate from these expectations are usually limited to one of the four nonstandard ways, the first-degree nonsalient → nonsalient violation; "the other three options are hardly ever used" (Shen 1995: 268–69).[40] "Hardly ever" may be something of an exaggeration, but the proportions reported are indeed striking. For example, in a single corpus study of four hundred novel poetic similes randomly selected from four different periods and sixteen different authors, Shen found the following proportions of the various kinds of directionality: on the abstractness scale 88.0 percent of the similes showed standard directionality, 2.5 percent showed first-order violation (abstract source projecting to abstract target), and 8.5 percent showed second-order violation (abstract source projecting to concrete target); while on the saliency scale 44.0 percent showed standard directionality, 41.0 percent showed first-order violation (nonsalient source projecting to nonsalient target), and 15.0 percent showed second-order violation (nonsalient source projecting to salient target).

With these statistics in mind, let us turn to Shelley's ode "To a Sky-Lark" and, for the sake of both argument and space, perform the same analysis on its first six clause-level metaphors.[41] Each of these metaphors is developed within its own five-line stanza. The stanzaic structure thus underlines the figurative structure, and the resulting thirty-line sequence (including the verses puzzled over by Eliot and Empson) functions logically as the poem's exposition: it announces the dramatic occasion (the speaker's spontaneous outpouring to the apostrophized skylark) and establishes the "ecstatic and febrile" tone (Empson) and "sweeping" tempo (Leavis) that carry through to its conclusion. Crucially, while the targets of the six opening figures (a metaphor followed by five similes) are essentially identical—the "Sky-Lark" of the title, perceived metonymically by its song—the sources are

40. Shen does not speculate on why there should appear a preference for only one of the four forms of directionality violation.

41. Metaphors may be found at every level of language structure, from phonemes (as in sound symbolism) to words (as in catachresis) to phrases (as in anaphora) to clauses (as in the similes Shen studied) to larger discourse units (as in sonnet cycles or romance episodes). I focus on clause-level metaphors because (a) these are the ones commonly at issue in interpretation (as with Eliot, Empson, Leavis, and Bachelard) and (b) these are the ones with the most immediate consequences for comprehension (given the criterial status of the clause for discoursive well-formedness).

diverse and, to varying degrees, conceptually inconsistent. Thus what is at first rarefied to a "blithe Spirit" is presently condensed to a "cloud of fire," then evaporated again into an "unbodied joy," then consolidated anew as a "star of Heaven"; in the process of this conceptual transformation of what is after all just a skylark, its song likewise transmutes from Miltonic "art" to "keen" "arrows" of light to moony "beams" that "rain" and "flow." Closer inspection of these metaphors in terms of the projections from source to target reveals a persistent pattern of directionality violations, one which, if the cognitive hypotheses about constraint have merit, is highly unlikely to have occurred by simple carelessness or mere chance. Moreover, if Shen's data prove to be anywhere near representative, Shelley's programmatic difference from them would be of the first significance in accounting for his poetry and its reception and perhaps more generally for a distinctive characteristic of (English) Romantic style. Alternatively, the example of Shelley's persistent violations may be taken as evidence that the cognitive theory of constraint and violation is misformulated (if not misconceived[42]) and that Shen's corpora are as yet too thin and selective to yield broadly generalizable results. In either case, whether as an exception or as a challenge to a rule of cognition, the theoretical interest and value of Shelley's analogical poetics can hardly be disputed.

Shelley announces his deviant strategy with the poem's first line, which takes the ode's personifying convention of apostrophe to new and decidedly "problematic" heights:[43]

> Hail to thee, blithe Spirit!
> Bird thou never wert,
> That from Heaven, or near it,
> Pourest thy full heart
> In profuse strains of unprèmeditated art.
> (1–5)

Shelley commences the poem with what Shen terms a second-degree directionality violation, metaphorically projecting onto a presumably concrete bird the more abstract structure of a "blithe Spirit." The projection

42. In terms that resonate suggestively with the Romantic argument here analyzed and advanced, Sternberg (2003: 519 ff.) faults cognitivism as a species of "neoclassicism" that arbitrarily universalizes one member of a class (e.g., of psychological faculties, of story types, or as here, of metaphoric projections) to the theoretical neglect of all the others.

43. *Problematic* is quoted from Richardson's (2010: 60) fine chapter "Romantic Apostrophe," which pits the "problematic" view of apostrophe developed by post-structuralist critics, such as Jonathan Culler, Paul de Man, and Jacques Derrida, against the "everyday" view promoted by cognitive metaphor theorists, such as Lakoff, Johnson, Turner, and Raymond Gibbs Jr.

has little to no *imagistic* consequence, as can be sensed most palpably by inverting the metaphor, so that the concrete bird projects its structure onto the abstract target of spirit: for example, "Hail to thee, lark-like Spirit!" In processing this more "standard" or "canonical" kind of projection, one may readily image a flying and/or singing "Spirit"; in any case, structure borrowed from the concept of the bird more or less *definitely* and *sensibly* informs and enriches the imagistically *indefinite* and *insensible* concept of spirit. With Shelley's original metaphor, however, the reader is asked to project the *indefinite* and *insensible* structure of the concept of spirit (as well as the emotive "blithe") to a conceptually *definite* and *sensible* entity.

Consider for a moment how and in what aspects exactly the metaphoric information from "spirit" (or "blithe") affects your mental representation of the skylark. I would claim three things about reader responses: (a) they will be more various and less predictable than responses to a more standard projection (e.g., bird → spirit)[44]; (b) the projected structure will be comparatively difficult to *image*; and (c) to the extent that one does succeed in imaging the projected structure, that imagery will be inconsistent with the concept of the lark and will to that extent denature it (e.g., by attributing a humanlike "consciousness" or "interiority" to the bird, trying to imagine ("see"/"feel") it, as it were, on or from the inside). The conceptual inconsistency I am alleging is in fact acknowledged in the poem's second line, "Bird thou never wert": a flat contradiction of the "Sky-Lark" announced in the title but perfectly consistent with the concept of "Spirit" imported by metaphor in the opening line. In brief, through the double means of directionality violation and conceptual inconsistency, the two opening lines already challenge, weaken, or inhibit our imagistic mental representation of the skylark while at the same time unsettling our conceptualization of the bird (not a bird after all?). Both representation and conceptualization have become problematic, and the difficulty only mounts, lark-like, from here.

Again, this difficulty is valuable to cognitive science, and to conceptual metaphor and conceptual integration theories particularly, because it signals some degree of *impedance* to automatic cognitive processes, which are normally masked by their quickly derived representational products (i.e., the Eliza effect).[45] What is more, Shelley's poem, as the ensuing analysis will show, creates such process-prolonging and so process-revealing resis-

44. Shen (2007: 173) reviews cognitive research supporting this claim.

45. In "Art as Device," Viktor Shklovsky (1990 [1917]) correlates such impedance of cognitive processes with artistic structures that produce experiences of "estrangement" or "defamiliarization." The latter concept famously has Romantic sources, among them Coleridge and Shelley.

tance *programmatically*. Its verbal strategy may thus be taken as a carefully articulated model of the kind of linguistic conditions that may *predictably* amplify and sustain the processes of projection and blending that are supposed to be foundational to, or even constitutive of, human cognition. While the task of operationalizing such conditions for experimental control and manipulation properly falls to the disciplinary experts in the cognitive and psycholinguistic sciences, I venture to suggest that expert study of Shelley's poetic strategy and its documented effects can and should provide relevant (counter)evidence for hypotheses about metaphoric projection and conceptual blending and even a "first approximation" of the conditions that might serve to test them.

As an immediate example of what I mean, consider the abstract → concrete metaphor at hand and the cognitive hypotheses about projective tendencies and constraints in the creation and processing of metaphor. If Shen and others are right, Shelley's opening moves in "To a Sky-Lark" should prove unusually demanding for interpretation ("cognition," "conceptualization," "representation"[46]): they involve not only a projective strategy to which readers will be comparatively unaccustomed and for which they are contextually unprepared but also an asserted conceptual inconsistency that opens and ambiguates rather than forecloses meaning (skylark = spirit, not bird). This unusual interpretative demand should translate into greater processing time (compared with processing "standard" projections between consistent concepts) and/or less certain and less definite results. The critical responses reviewed in section 2 would seem to bear this out: Eliot and Empson spend paragraphs trying to sort out the meanings of Shelley's metaphors, as does Leavis once he pauses to think them through. My analysis of the poem's opening lines provides yet another instance of critical pause and interpretative uncertainty, and as further evidence I offer an explicitly cognitive interpretation of a very similar set of opening moves in Shelley's (1965: 4.167) *Triumph of Life* (composed in 1822):

> Swift as a spirit hastening to his task
> Of glory and of good, the Sun sprang forth
> Rejoicing in his splendour.
> (1–3)

46. Not at all the same thing, as the immediate sensation of pain illustrates: certainly cognizable, the particularity of the feeling seems to evade conceptualization ("pain" is a general term, and its subdivisions—e.g., "ache," "twinge," "throb"—are not sharply differentiated or extensively lexicalized) and representation (it's difficult to *re-create* the feeling of a particular pain—say, a lower-back ache—in imagination, in language, in paint, etc.).

Patrick Colm Hogan (2003: 102) offers an interpretation of these lines that almost point by point anticipates the reading of "To a Sky-Lark" I have advanced so far:[47]

> First, Shelley reverses the usual operation of metaphor here. Metaphor typically uses a concrete or perceptual source, which is well specified and well comprehended, to understand an abstract target, especially one that is vague and ill comprehended. Here we have an unnamed and unspecified spirit used as a source by which we might understand the sun and we have the spirit's "task" operating to explain the dawn. As if this were not strange enough, Shelley specifies one constituent that we are supposed to transfer from the source to the target, "swift." He also names two other constituents of the source, which we are presumably intended to transfer also—"glory" and "good." Yet a reader cannot help but notice that the sun does not move "swiftly" in the sky. It does not "hasten" in the way an incorporeal spirit would hasten. Thus it seems we have no choice but to read the explicit constituent transfer as ironic.

Here again, then, Shelley commences with a "strange" and "atypical" metaphor that asks us to transfer conceptual structure from a comparatively "vague and ill comprehended" abstract source ("spirit") to a conceptually "well specified and well comprehended" concrete target ("sun"). Here again, the structure to be transferred is, at least in part ("swift," "hastening"), inconsistent with the target concept. And here again, the interpretation of the combined directionality violation and conceptual inconsistency leads to prolonged deliberation with comparatively uncertain conceptual results (Hogan's "no choice" but irony is indeed only "seeming"—the reader in fact has *too much* choice in the circumstance, as Hogan's careful deliberative logic would suggest and as a review of the considerable scholarship on the poem would demonstrate).

My analysis and Hogan's already suggest that the cognitive approach to metaphoric projection and blending would be enriched by careful attention to the *interplay* of two distinguishable conceptual dimensions, one bearing on concreteness or abstraction, the other on consistency or inconsistency. These independent variables need to be distinguished and calibrated in any cognitive or psycholinguistic investigation of metaphoric cognition, especially those that use (as the majority still do) linguistic evidence and experimental prompts derived by the investigators. As an (admittedly novice) example of such distinction and calibration, consider an experiment designed to test reaction times to, and felicity judgments concerning, a

47. Both Hogan and I were long ago anticipated by Keach (1984: 75–76), writing about the introduction of Asia in the opening verses of act 2, scene 1, of *Prometheus Unbound*, as Keach was in more general terms by Empson and Empson by Mary Shelley.

series of metaphors involving the concepts of "bird" and "sun." The experimental design would systematically vary the roles of these two concepts with respect to the metaphoric projection involved, using them sometimes as sources, sometimes as targets. At the same time, the metaphoric other term (source or target, depending on the role taken by "bird" or "sun") would likewise be varied along the two-dimensional scales of concreteness/abstractness and consistency/inconsistency. Data from such experiments could contribute to establishing *whether* there are different processing effects as a consequence of different kinds of metaphors and, if so, the extent to which those effects should be attributed to variation along one scale or the other or both.

But of course, the "dimensions" of cognition at work in metaphoric interpretation are not just two but legion. Shen's research identifies but does not sufficiently disentangle two other critical axes or continua having to do with the relative saliency of the transferred feature with respect to the source and target concepts and with the degree of conventionality or novelty involved in their metaphoric relation. The *complication* of these dimensions and the consequent difficulty of their necessary distinction and experimental control may be illustrated by Shelley's two "spirit" metaphors. I have argued above that reversing Shelley's metaphors so that they involve more standard projections from concrete sources to abstract targets may help bolster Shen's hypotheses about the comparative frequency and ease of such projections as opposed to their Shelleyan opposites. But in asking the reader to consider a "lark-like Spirit" as against a "Spirit-like lark," I failed to account for the fact that the representation of spirits as birdlike creatures is, for many readers of Shelley's poem, culturally conventional, thanks to Christian iconography; and this objection applies equally if we reverse the opening *Triumph of Life* metaphor to "sun-like spirit." A reader's comparative efficiency and success in performing the "constrained" projection might rest in large part, even entirely, not on its arrangement of concrete concepts relative to abstract ones but rather on the sheer conventionality of the specific transfer required. Where "birdlike" or "sun-like spirit" may be easy-going for readers, what about decidedly nonconventional but nonetheless concrete → abstract metaphoric transfers, such as "celery-like Spirit" or "cutting board–like Spirit"? Is the latter in particular any less difficult to process than its abstract → concrete opposite "spirit-like cutting board"? And if "cutting board–like Spirit" seems to engage and challenge your representational capacities longer and more strongly than "celery-like Spirit," isn't that precisely because the concept of "cutting board"—being inanimate as well as insensitive—is even more inconsistent with "Spirit"?

What's more, judgments about conceptual consistency, saliency, and conventionality are enculturated to some extent, even if they are based on innate dispositions for the development of "folk" physics, biology, and psychology;[48] and to just this extent, such judgments will be variable. The opening stanza of "To a Sky-Lark" provides a perfect illustration of the point. All readers may at first infer that the ground of Shelley's initial "spirit-like bird" metaphor is encoded in the emotional epithet "blithe." But the stanza's subsequent lines suggest through allusion[49] a more complicated relation, one that will be differently construed by readers with different levels of literary-critical and literary-historical preparation. In other words, judgments about the kind of projection required, with the corresponding "degrees" of novelty and violation, will depend as much on the reader's cultural literacy as on the particular language forms selected by Shelley. For the well-versed reader, the stanza's final phrase, "unpremeditated art," will recall *Paradise Lost* 9.24 and provide a literary-conventional ground for the not entirely novel "Spirit" metaphor with which the poem commences. The allusion suggests that the lark's "profuse strains" are comparable to the "unpremeditated Verse" that poured from Milton's likewise "full" and "heaven"-inspired "heart," and this implies in turn that the lark itself is, like Milton, a poet and therefore the kind of entity that might consistently be referred to as a "Spirit." Further relevant to this allusive complex is the fact that Milton (1957: 259,379) compares his "unpremeditated Verse," fed "on thoughts, that voluntary move / Harmonious numbers," to the "nocturnal note" of the nightingale (*Paradise Lost* 3.37–40, 9.24). Milton's original metaphor thus involves "standard" projections on the abstractness and saliency scales. The feature of "voluntary," in the word's original sense of "arising or developing in the mind without external constraint; having a purely spontaneous origin or character" (*Oxford English Dictionary* 1989, "voluntary," I.1.a)—in a word, "unpremeditated"—projects from a concrete source in which that feature is salient, birdsong, to a comparatively abstract target in which it is not, "Harmonious numbers"

48. The qualifier "folk" should underscore this truth, though cognitive psychologists seem to use it more in an anthropological than a sociological sense.

49. As Nicolae Babuts (2009: 16–17) argues, allusion itself constitutes another (and in poetic discourse more or less *primary*) dimension of metaphoric structure: "If readers are familiar with both poems they may see a flow of energy from one text to the other (most likely in both directions). In this way the new poem's patterns are for them already prefigured, foreknown, and anticipated. These readers would be more ready to respond favorably to the new poem. We can speak of an intertextual domain, where energy circulates, where exchanges of values are made and new patterns are suggested or foreshadowed, provided we understand that all this happens in an individual mnemonic space. Such flow of mnemonic energy, when it occurs, creates relations that are characteristic of metaphoric exchange."

or "Verse." Or rather, a target in which the feature of "unpremeditated" *was* not salient until Milton projected that feature upon it in a poem whose subsequent fame and circulation consolidated, or made conventional to a certain audience, the association of "unpremeditated" and "verse." In inverting Milton's metaphor and thus the direction of its projections, so that now human "art" (Milton's verse) is the source and projects the feature "unpremeditated" to the target lark song, Shelley is counting on his reader's background knowledge of this Miltonic source; and this knowledge will almost certainly temper that reader's sense of the metaphor's cognitive difficulty and effects.

Contrast the reader who *does not* possess this knowledge. Confronted with the metaphor of lark song as "unpremeditated art," such a reader would probably register, in Shen's terms, a "second-degree saliency violation": because the feature "unpremeditated" would seem to be more prototypical of the target concept of lark song than of the source concept of art, the required projection would be nonsalient → salient. But for the reader who *does* possess the requisite knowledge, the feature "unpremeditated" would probably be equally or even more readily associated with (Miltonic) art than with birdsong, meaning that the solicited projection would be one or another of the "standard" varieties, salient → salient or salient → nonsalient. Moreover, this difference between less and more prepared readers would have further and higher-order consequence with respect to their construal of the "Spirit" metaphor, for which this subsidiary metaphor of (Miltonic) "unpremeditated art" serves as ground. Among readers who perceive it, the allusion to the human poet may serve as a conceptual bridge between "Sky-Lark" and "Spirit," rendering the projection from the latter to the former if not less "strange" (to recall Hogan's term) then at least more interpretable (because the allusion supplies additional information about/to the metaphor). This suggests that the culturally mediated dimensions of saliency and conventionality intersect with the more naturally determined dimensions of consistency and abstractness, to variable cognitive effect. If so, all four of these intersecting dimensions should be considered and, to the extent possible, controlled in cognitive-psychological experiments on metaphor. Such consideration will yield more finely nuanced predictions concerning that metaphor's projective requirements and cognitive costs, and such control will generate better data for the verification, refinement, or rejection of those predictions.

Of course, by alluding to and thus imitating Milton, Shelley implicates himself in the same metaphoric network: if the lark's "harmonious madness" (103) is like Milton's "Harmonious numbers" in being "unpremeditated" and if Shelley's metaphor is like Milton's in that it compares

"profuse strains" of birdsong and poetic "art," then by the principle of transitivity Shelley's poem is—as it aspires to be—like the lark's song that is its occasion. For the reader trained in literary history and interpretation, then, the opening five lines may metaphorically invest the target concept of the skylark with information and structure imported from the source concepts of "Spirit," Milton's *Paradise Lost*, and (metareferentially) the poem "To a Sky-Lark" itself. This multiplication of interpretative possibilities leads us to consideration of the related issues and opportunities arising from what Bachelard calls the poem's "mobilité spirituelle" and Hogle its "transpositional-relational drive." Both phrases refer to the relation-making process(es) of imagination that Shelley posited in the *Defence* as the essence and engine of human creativity and that he contrives to stimulate and reveal through the analogical poetics of "To a Sky-Lark." As one inconsistent and constraint-violating metaphor supplants another in the unfolding sequence of the poem and in the reader's incessantly but ever more uncertainly updated representation of the skylark and its song, that reader may well experience what Keach describes as an "evanescence" of definite imagery, one that reveals the "elusive flow" of the underlying imaginative activity.

Thus whatever our construal of the opening "Spirit" metaphor, the second stanza immediately confronts us with a new and apparently unrelated simile for the skylark:

> Higher still and higher
> From the earth thou springest
> Like a cloud of fire;
> The blue deep thou wingest,
> And singing still dost soar, and soaring ever singest.
> (6–10)

As with the first stanza, we may again have a sense of "strangeness" and interpretative difficulty or incompleteness, and this sense may again have something to do with a second-degree violation of directionality constraints on metaphoric projection—now on the dimension of saliency rather than abstractness. The lark is now "like a cloud of fire" that "spring[s]" "higher still and higher / From the earth": source ("cloud of fire") and target (lark) are presumably equally concrete—what semanticists (e.g., Lyons 1977, 2:442 ff.) would call "first-order entities" that are said to "exist" in space—but they vary on the scale of saliency in the readiness and frequency with which they will be associated with the feature that grounds their comparison. "Springing from the earth" is experientially more prototypical for our concept of birds than for our concept of clouds, especially "clouds of fire,"

which are very likely to be associated through well-known biblical allusion with prototypical schemata for *steady horizontal motion* or even *ponderous descent* rather than *rapid ascent* (e.g., Exod. 13:21, Num. 12:5).[50] To put the point another way, the source concept of "a cloud of fire" can hardly enrich our sense of the "upward motion" schema that (for many readers at least and certainly for lovers of larks) already and more naturally characterizes our concept of birds. If anything, the source unnaturally projects an opposite or orthogonal schematic trajectory, one that is conceptually inconsistent with the specification "higher still and higher" that introduces the simile. (As though to underscore the inconsistency, there comes next the metonymic image of the "blue deep," that is, the cloudless expanse through which the lark "wingeth"—clouds have no actual place in *this* sky, still less "clouds of fire.")

The reader can hardly have worked out these conceptual difficulties (never mind correlating any result with a construal of the opening stanza) before she or he comes upon yet another simile in the third stanza. This one involves three kinds of directionality violation, two of them second degree: the skylark is now perceived to "float and run" "Like an unbodied joy" (14–15). The abstract concept "unbodied joy" is to project its inconsistent structure of "floating" and "running" (both of which require a body) to the concrete concept of the lark, even though "floating" is already more prototypical of the concept of a lark than of joy and "running" is prototypical of neither. The simile thus couples a second-degree violation on the abstractness scale with first-degree ("runs": nonsalient → nonsalient) *and* second-degree ("floats": nonsalient → salient) violations on the saliency scale. Meanwhile, what's become of one's representational and interpretative gambits with respect to the "cloud of fire" or the poetic "Spirit" of Milton? Occupied with the present challenges of the metaphoric moment, one may very well have let them slip from attention and "evanesce" from working memory, as may the metaphor of "unbodied joy" in the following moment, since yet another simile for the skylark emerges in stanza 4.

With this next simile, the disembodied but inconsistently animated lark vanishes altogether:

> Like a star of Heaven,
> In the broad daylight
> Thou art unseen.
> (18–20)

50. Hogle (1988: 205) for one notes the allusion and senses potentially "oppressive" connotations.

Perhaps as a prop to the fledgling reader, Shelley deviates here from his own deviant pattern of second-degree directionality violations: he constructs a projection that is standard along the abstractness dimension (both the star and the bird are concrete entities) and offers only a first-degree violation along the saliency dimension (being unseen is a prototypical property of neither stars nor birds—though the lark may be an exception to this conceptual rule, in which case we have a second-degree violation after all). But conceptualization of this metaphor nevertheless involves a kind of dynamic abstraction[51] that, in Bachelard's terms, "evaporates" the source concept before projecting the resulting *lack* of structure upon the target. A "star in broad daylight" is imagistically self-canceling: the conventionally visual image of the star is "beheld" abstractly but insensibly, as if under representational erasure. Such a self-canceling metaphor, especially coming on the heels of a series of canceled metaphors, may stimulate in the reader what Coleridge (1960, 2:103) identifies as "the grandest effort" of poetry. In such effort, "the imagination is called forth, not to produce a distinct form, but a strong working of the mind, still offering what is again repelled [here, the visual image of a star], and again creating what is again rejected." This productively impeded state of mind, in which attention to specific representations gives way to a "sublime sensation" of the underlying "working[s]" that ceaselessly "create," "repel," "reject," and otherwise transform such representations, is just what cognitive theory and experiment need to investigate, for in this state the Eliza effect is to some degree forestalled, and the projective processes of conceptualization are to some degree exposed in their work. Immediately available to introspection, as Coleridgean theory and Shelleyan criticism demonstrate, the sensation of this ever-active, "transpositional-relational" process may also be accessible as well to less direct but still valuable means of cognitive investigation, including reaction-time, neural-imaging, and muscular-movement (of the eyes, hand, head, etc.) studies.

Shelley's constraint-violating, multiply compounded, and self-canceling metaphors may provide fruitful models for experimental conditions, especially as regards cognitive-scientific investigations of imagination's representational activity. The lark as a "star in daylight," which must be imaginatively "seen" to be in the next moment imaginatively "unseen," provides

51. Leonard Talmy (1996) would analyze the simile of "like a star in daylight" in terms of "fictive absence," whereby a present entity (the "star") is conceived as being absent, and he would analyze the next one of "arrow"-like rays of light "narrow[ing]" to nothingness in terms of both fictive absence and "fictive motion." The presence of these devices *dynamizes* the source concept and *unsettles* its ontological status.

a very concise example of a representational conflict or contradiction that may occasion, even if ever so briefly, the kind of effortful cognition that Coleridge describes. A more complicated example is the immediately succeeding simile, the one interrogated and censured by Eliot for being "without sense." That characterization is telling, for it is indeed hard to make sense of the metaphoric relation or projection that Shelley here specifies, especially in view of the multiple, conceptually inconsistent, and at best partially retained metaphors that have already worked their "strange" and "evanescent" effects on the reader's mind.

In stanza 5 the speaker compares the lark's "shrill," "keen" sound, sharp at first but progressively diminishing, to

> the arrows
> Of that silver sphere
> Whose intense lamp narrows
> In the white dawn clear
> Until we hardly see—we feel that it is there.
> (21–25)

The "silver sphere," as Empson suggests, may glance backward to the previous stanza's "star of heaven" or forward to the next stanza's "moon rain[ing] out her beams" (30) or both, but the concrete source is in any case complexly metaphoric, an "intense lamp" whose luminous "arrows" dwindle ("evaporate," in Bachelard's terms) to nothing before our very minds' "eyes." The conceptual inconsistency of the simile ("keen as are the arrows") arises from its conflicting synesthetic requirements, whereby a singular piercing sound is to be figured as multiple rays or "arrows" of light emanating from a silver star or moon, and the source that is now refigured as an "intense lamp," presumably to provide what blending theory would call a "human-scale" image of a dwindling and evanescing sphere of light (as when an intensely burning lamp is slowly extinguished). Arrows are like the rays in being multiple, like the sound in being "keen" or "sharply piercing," yet they are unlike the sound in being multiple and unlike both the rays and the sound in being materially extended, rigid, and incapable of "narrowing" or, more literally, "dwindling." (Indeed, for the sequenced projections to work out properly, we should envision the arrows flying in reverse, back to their source—an image literally unseen until the advent of motion pictures.) The simile thus requires the coordination and identification of conflicting images (tactile objects = visual light = auditory sound, many = one, radiation from a source = contraction to a source) through nonstandard saliency projections (strictly speaking, "narrowing" is a prototypical property of neither of the two source concepts nor of the target concept). My last sentence transforms Shelley's unique utterance into a schematic form whose variables (of perceptual modality, number, fictive motion, and saliency) could be differently specified and systematically varied. If poetry itself is too uniquely complex for scientific investigation, it is nevertheless composed of verbal structures whose basic constituents may be analyzed and variably repeated in ways that would be predicted to yield varying degrees of cognitive impedance for precisely specifiable reasons (i.e., whether because of constraint violation, conceptual inconsistency, novelty, or conventionality, etc.).

The new simile of stanza 6 could be similarly schematized and experimentally manipulated (as indeed could dozens of others in the poem whose analysis need not be undertaken here). It articulates a complex analogy in which "the earth and air" are as "loud" with the lark's "voice" as the night sky is bright with moonlight "when night is bare" and "From one lonely cloud / The moon rains out her beams, and Heaven is over-flowed" (26–30). The previously "narrowed" "volume" of the birdsong is now reproportioned to the saturating brightness of a particle- *and* wavelike light that "rains" and "flow[s]," and the resulting synesthetic amplitudes are rich in conceptual conflict (e.g., a singular "voice" = multiple drops of water = multiple beams of light). Here, for the first time in six stanzas, we have a clause-level metaphor that requires standard projections along both directionality dimensions with equally concrete source (raindrops and flowing waves of light) and target (voice of the lark) concepts that share the conceptually salient property of dynamic amplitude.[52] Especially when taken in sequence, this "conventionally constrained" projection can hardly stabilize our conceptualization of the by-now multiply figured, visually dissolved, and arrow-/lamp-/rain-voiced skylark. As has so often been claimed—by Eliot ("no brain work"), Leavis ("an inspiration that works only when the critical intelligence is turned off"), Empson ("a simile which applies to nothing exactly"), Bachelard ("a psychological beyond, a precursory psychic force which *projects its own being* [qui *projette son être*]"), Keach ("a complex movement of vanishing and transmutation"), Hogle (a "transitory and transitional motion prior to images"), and many others—Shelley's "Sky-Lark" has within these thirty lines far outsoared the bounds of consistent conceptualization and stable, unitary representation. No wonder the two immediately ensuing lines confess "What thou art we know not" and raise anew the relation-seeking question "What is most like thee?" (31–32).[53]

52. More technically, our (conventional) concepts of both light and sound include "radiation-path fictive motion" (Talmy 1996: 221), that is, a wavelike schema that supports our conceptualization of such expressions as "*spreading* sound/light."

53. This six-stanza movement is then reprised (31–60) with six new similes, which again

Table 1 Shelley's Nonstandard Metaphoric Projections in the Opening Stanzas of "To a Sky-Lark." Table suggested and created by Margaret Freeman

first-degree violations	source → target	second-degree violations	source → target
abstract → abstract		abstract → concrete	"Spirit" → bird
			"unbodied joy" → bird
nonsalient → nonsalient	joy "run[s]" → bird runs	nonsalient → salient	"unpremeditated" art/verse → unpremeditated birdsong
	"unseen" star → unseen bird		cloud "springing" → bird springing
	arrows/lamplight "narrow[ing]" → birdsong dwindling		joy "float[s]" → bird floats

Measured against Shen's findings concerning directionality constraints,[54] the semantic structure of Shelley's clause-level metaphors in the opening stanzas of "To a Sky-Lark" betrays exceptionally high frequencies of deviance. The first five of six metaphors/similes have at least one violation, and two (the first and the third) have two or more (see table 1 for a visual summary of the foregoing analysis). On the abstractness scale, one-third (33.3 percent) of the poem's first six metaphors involve second-order violations, as opposed to an average of 8.5 percent in Shen's corpus, while fully one-half (50.0 percent) of the six involve second-order violations on

display a high frequency of abstractness and saliency violations and are again followed by the refrain-like coda that concedes the persistent conceptual instability: the addressee's conceptual status as "Sprite or Bird" (61) remains just as uncertain and ontologically ambivalent as at the poem's metaphoric outset. This sequence is in turn followed by a seven-stanza sequence composed of explicit disanalogies, which further remove the destabilized concept of the lark from the ever-multiplying metaphoric projections that by turns momentarily and more or less inconsistently structure it. As William Ulmer (1984: 246–47) puts it: "The lark remains both like and unlike every object [Shelley] offers, so that these various offerings finally show that dissimilarity is actually the necessary precondition of any comparison. Clarifying the differential premises and structure of metaphor, as a vehicle for imaginative perception, 'Sky-Lark' works to foreground correlatively the differential structure of human thought and emotion."

54. Mine is of course an interpretative rather than a controlled study, and my "sample" is far too small for the quantitative use I am about to put it. My analytic perceptions would need to be independently verified in controlled conditions to qualify as genuine "findings." Still, by any known measure including generations of expert judgment, the proportion of deviance in Shelley's verse is evidently strikingly high.

the saliency scale, as opposed to an average of 15.0 percent in Shen's (1995: 268–69) corpus. Shen (2007: 173) summarizes his own and others' experimental findings about the cognitive cost and consequence of such deviance: nonstandard or "noncanonical" similes take longer to interpret, generate a greater variety of interpretations, are more difficult to recall, and are judged as less natural and meaningful than canonical similes. What happens, then, when we are confronted, as we are in Shelley's poem, not with one simply structured noncanonical metaphor but with five or more complexly structured ones, each involving some nontrivial degree of conceptual inconsistency? And we have yet to factor in conventional as against novel metaphoric structures operating at subclausal levels: in a representationally destabilized context like this, they can only compound conceptual difficulties and prolong further the process of construal. For example, the verse is dense with more or less conventional lexical metaphors, such as "*pourest* thy *full* heart" (4), "*sunken* sun" (12), "*broad* daylight" (19), "the moon *rains out her beams*" (30), as well as with deeply entrenched grammatical metaphors that no expression can do without (e.g., the prepositional relations of containment, superposition, etc.). Shelley also exploits every variety of iconic metaphor, from the alliteration that dissolves the punctual bilabial stops of "*p*ale *p*ur*p*le" into the single bilabial continuant of "*m*elts" (16–17) to the stanzaic form, in which four trimeter lines give way to a final hexameter, with "the effect of a swift cascade of sound overflowing the rim of the quatrain, for the 'profuse strains' cannot be confined within narrow limits" (Wilcox 1949: 567).

Whatever meanings may emerge in these conditions, they will be effortful, fragmentary, momentary, and finally beyond the targeted point. Rather than conceptual *blending* or *integration*, we might sooner designate the cognitive process coded in and primed by the poem as conceptual *composition*, in which the elements "positioned together" (i.e., metaphoric sources and targets) do not resolve into a unitary concept or representation. John W. Wright (1970: 2) suggests exactly this terminology, which can be conveniently updated with the single word "conceptual": "The philosophic center" of Shelley's poetics "consists of his insights into the nature of the materials and dynamics of this process of [conceptual] composition, which I shall call a composition theory of [conceptual] experience." Wright (ibid.: 25) also locates our access to this dynamic process in the creative projections of novel poetic metaphor: "Perceiving one thing as or as if it were another—like speaking of one thing in idioms appropriate to another thing—involves a form of mental activity in which the mind can become immediately aware of the nature of its own synthetic activity," all the more so when the mind attempts to perceive one thing as if it were *many*

inconsistent others. Hogle (1988: 65, 168) likewise construes Shelley's verse in this compositional sense and, avant la lettre, comes to exactly the right conclusion about the cognitive effect of such an analogical poetics: "Any point of apparent blending . . . must finally uncover the continual interplay of differences . . . that is the process underlying the attempted connection and urging it toward this interaction and many others. The linking of one analogy to another has to reveal a primordial diversity that forms relations among its elements, thereby exposing identity in a fixed system as an illusion to be overcome."[55] Translating Hogle's words into blending theory but without the slightest violence to his meaning, we can say that Hogle here identifies both the Eliza effect—the "illusion" of "fixed" or "apparently blend[ed]" forms that conceals the compositional "process[es]" of imagination—and its antidote in Shelley's analogical poetics. Wright (1970: 8, 41–42) likewise characterizes Shelley's poems as "meditative phenomenological experiments" that enhance "sensitivity to activity in conceptual space and transformations among the objects of thought."[56]

The problem of how to translate these "qualitative" introspective experiments into empirically falsifiable ones is complex and vexing, but the solutions are not far beyond the horizon of our present conceptualization. As my analysis of the opening stanzas of "To a Sky-Lark" has shown, Shelley's verse is linguistically and cognitively exceptional but nonetheless decomposable into its (levels of) consistent as opposed to conflicting metaphors and their comparatively constrained or deviant projections. Thus isolated, the conceptual components and projective relations can be systematically varied and played off against one another in controlled psychometric experiments (e.g., involving eye tracking, event-related potentials [ERP],

55. See Spivey 2007: 31: "There is no point of time during which the mind is not changing. There is simply no such thing as a static internal representation."

56. In this, they are like the analogical and compositional artifacts that Barbara Maria Stafford has similarly analyzed for their cognitive-theoretical and even experimental values. In the following statement from *Visual Analogy*, Stafford (1999: 144) might be speaking of "To a Sky-Lark": "Types of images that conspicuously do not blend their elements are especially effective in demonstrating the rules governing the brain's connectivity, how it is able to activate many discrete areas possessing specific functions and juxtapose them into a larger coherent pattern." In *Echo Objects*, Stafford (2007: 43) argues at length "that demanding image formats, inlaying, not blending, diverse sensory inputs, allow us to witness how the brain-mind cobbles together conflicting bits of information. Gapped or mosaic-like compositions make the labor of thinking inseparable from the perception of the object. Encapsulating structures specifically elicit both our considered attention and provoke the performative impulse to piece different stimuli together." For related arguments, see Deacon (2006: 42 ff.), who defines the aesthetic generally in terms of "bisociative" blends with incomplete and incompletable mappings, and Daniel W. Gleason (2009: 439), who argues that poetic metaphors in imagism involve a "visual template" "in which correspondent images shift back and forth in the imagination but never fuse together."

neuroimaging, and other technologies; see Gonzalez-Marquez et al. 2007 and Spivey 2007 for details and suggestions). By such means, cognitive science may come to understand the conceptually complex and dynamic effects of Shelley's analogical poetics and *in the process* discover deeper truths about conceptual blending, conflict, and creativity.

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Defaulting to Fiction: Neuroscience Rediscovers the Romantic Imagination

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Abstract *Imagination* has, however surprisingly, become a term to conjure with in the sciences of brain and mind. This essay considers the ways "imagination" is currently being constructed by cognitive scientists and neuroscientists in relation to a humanist discourse on imagination going back to the eighteenth century and especially the Romantic era. Recent scientific formulations of imagination at once overlap significantly with long-standing humanist constructions, borrowing some of the term's luster and cultural resonance, while often delimiting it or diminishing it in the interests of a dubiously instrumental and adaptationist ethos. I propose that scientists and literary scholars stand to gain equally from greater interdisciplinary dialogue on this rich and notoriously problematic topic.

The New Science of Imagination

Among so many unforeseen developments in cognitive science and neuroscience, surely one of the most surprising concerns the recent surge of interest in imagination as a subject for scientific research and speculation. Viewed since Greek classicism as unruly and irrational, "magical" and wild, what topic could prove less amenable to scientific investigation than the human imagination? Yet at the beginning of the twenty-first century, *imagination* suddenly became a term to conjure with in the sciences of brain

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