

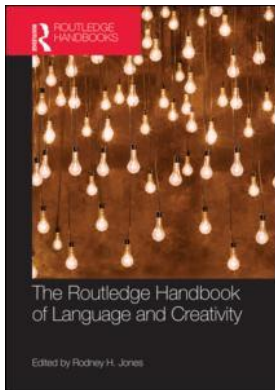
This article was downloaded by: 10.3.98.93

On: 16 Jan 2019

Access details: *subscription number*

Publisher: *Routledge*

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: 5 Howick Place, London SW1P 1WG, UK



## The Routledge Handbook of Language and Creativity

Rodney H. Jones

### Discourses of creativity

Publication details

<https://www.routledgehandbooks.com/doi/10.4324/9781315694566.ch10>

Camilla Nelson

**Published online on: 08 Sep 2015**

**How to cite :-** Camilla Nelson. 08 Sep 2015, *Discourses of creativity from: The Routledge Handbook of Language and Creativity* Routledge

Accessed on: 16 Jan 2019

<https://www.routledgehandbooks.com/doi/10.4324/9781315694566.ch10>

**PLEASE SCROLL DOWN FOR DOCUMENT**

Full terms and conditions of use: <https://www.routledgehandbooks.com/legal-notices/terms>

This Document PDF may be used for research, teaching and private study purposes. Any substantial or systematic reproductions, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The publisher shall not be liable for an loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

# Discourses of creativity

Camilla Nelson

---

## Introduction

Historians of the creative idea have traditionally taken what might be called a substantialist approach to their object of study, so that creativity has been quite commonly understood as an ideal or essential reality that exists outside and beyond the cultural and historical field. The result of this approach is that the manifold possibilities of history have been progressively reduced to a narrative about approaches to, or departures from, this fixed constant, so that the task of the historian becomes one not of theorisation, but of identifying and describing pure and unadulterated forms of the idea, or unmasking corrupt and alienated versions (Nelson, 2010). Hence, for example, even an exemplary scholar such as Raymond Williams (2001: 37), in his influential histories of the creative idea, is concerned to designate the successive historical figures who have come ‘very near to’ apprehending creativity for what it really is, or else depart from this extrahistorical constant in ways that Williams (1985: 84) judges to be ‘confusing and at times seriously misleading’.

The effects of substantialism are particularly apparent in histories that implicitly or explicitly rely on the secularisation hypothesis as a form of explication (Blumenberg, 1985: 3–123). In these histories, creativity is framed as a secularised form of a once-religious idea, with its earliest articulations most commonly evidenced in the tradition of the divine analogy, a Western literary tradition that represented nature as God’s art and saw human art as an activity that paralleled nature (for example Conrad, 2007; Dawson, 2005; Tatarkiewicz, 1980; Weiner, 2000; Williams, 1985: 84). However, although these histories broadly support the idea of creativity as a secularised form of the sacred, they seldom agree on the specific nature of the tradition that was secularised. Modern works tend to place emphasis on the advent of romanticism, drawing on M. H. Abrams’ (1971) theory of a dramatic ‘revolution in epistemology’ at the turn of the eighteenth century that engendered a new understanding of imagination, commonly citing Coleridge’s theistic vision of imagination as central to this process, for example. Others are committed to tracing a more gradual intellectual lineage that stresses romanticism as a significant turning point in a much longer narrative that stretches back to the Renaissance (as argued by Williams, 1985, 2001), to Francis Bacon (as argued by James Engell, 1981), or to the Greeks and Romans (as argued by Paul Oskar Kristeller, 1983; Milton C. Nahm, 1947, 1956; Wladislaw Tatarkiewicz, 1980). Indeed, in more recent times, inspired by the interest in creativity engendered by the creative industries phenomenon, the goal of much contemporary scholarship has been to trace the lineage – and, in this sense, the *legitimacy* – of the creative idea as far back as possible, so that a vague, although allegedly

unbroken, line appears to stretch from Tony Blair's 'Cool Britannia' right back to Genesis (for example Negus & Pickering, 2004; Pope, 2005; see also a parallel American example, Weiner, 2000). Further layers of legitimacy are often added by reference to non-Western traditions, specifically by collecting the creation myths of other cultures. Although this has obviously been done with the laudable intention of disrupting Western ideologies and belief systems, there is a serious and persistent problem in the way in which the Western tradition continues to frame and organise the analysis, resulting in a further buttressing of Western ideologies, rather than the opposite (see, for example, Pope, 2005; Weiner, 2000). It should also be noted that the religious or quasi-religious framing of the narrative excludes much attention being paid to the tradition of the rational artist, which is as old as, if not older and more venerable than, that of the inspired. It glaringly omits the craft-based traditions that dominated Western art for the 2,000 years prior to the modern era – the era in which art and craft were suddenly produced as antonyms for one another (Nelson, 2010: 54–64; Shiner, 2003). In histories with epic time spans ranging from 2,000–4,000 to as much as 40,000 years, a small handful of artists have been picked out to serve as 'heralds' or 'harbingers' for a contemporary form of the creative idea – while numerous others are either marginalised or dispensed with altogether. Indeed, some of these works on the creative idea would better be regarded not as histories, but as 'myths of origin' that have been designed to progress a variety of institutional agendas in the present.

A central problem with the religious or quasi-religious framing of the historical narrative (whether presented as a casting off of religion or a repurposing of religion to other ends) is that it *produces* a particular form of the creative idea as something mysterious, inspired, and rare. The consequence is that certain artefacts of human creativity, such as art and literature, are regularly elevated by bestowing upon them the mantel of the secularised form of the sacred. Conversely, everyday forms of creativity are constructed as debased or pale imitations of what were apparently once great, lofty, or spiritual constructs ('big "C" Creativity' as opposed to 'little "c" creativity', for example). Hence, even Raymond Williams (1985: 84) argued, in his influential study of the creative idea, that:

difficulty arises when a word once intended, and often still intended, to embody a high and serious claim, becomes so conventional, as a description of certain types of general activity, that it is applied to practices which, in the absence of the convention, nobody would think of making such claims.

He goes on to infer that creative writing groups are therefore engaged in intrinsically debased forms of literature and that advertising 'creatives' are engaged in intrinsically debased forms of art.

Using the tools of discourse analysis, this chapter explores the possibilities inherent in studying the emergence of the concept of creativity not as an extrahistorical or substantial ideal, but in the material context of its shifting historical conditions of formation. In understanding creativity as a discursively constituted object, the chapter is concerned to draw attention to the numerous distortions involved in taking what is essentially a modern variant of the creative idea and projecting it backwards over time, constructing teleological histories. Instead, it draws attention to the myriad ways in which the creative idea has been understood – as expression, self-realisation, production, revolution, life, adaptation, and reconstruction, for example (Joas, 1996: 70–144) – as well as the ways in which the creative idea has, at various points in its history, been shaped by the ideologies of individualism, the ideas of democracy and freedom, the rise of capitalism, and indeed the foundations of the modern nation state.

Indeed, the problem is perhaps more complex than the need to understand that ideas are not substantial, extrahistorical, essential, or eternal. There is also a need to account for the elements of contingency in their historical formation. In order to better understand the history of the creative idea, the critic may therefore be forced to look beyond traditional models of the history of ideas towards a history of language and discourse. This invariably entails a willingness to examine a second order of discourse – that is, to trace the categorical ground that gives rise to a particular order of discourse in order to identify the shifts and fractures as they make way for new arrangements of thought. This is particularly useful in attempting to trace the history of an idea such as creativity, which rarely takes coherent form in the work of a single ‘great philosopher’, although it finds differential expressions in works of philosophy in diverse cultural and intellectual traditions from Herder to Marx, and Nietzsche to Dewey. Just as significantly, the creative idea is also to be found scattered across the language of popular culture, and these rhetorical asides, prolix flourishes, angry and enraged demands, or half-articulated yearnings, while they are seldom worked out into an enduring or even coherent system, nevertheless collectively warrant more attention.

This chapter will argue that the creative idea, as a specifically human possession, was profoundly shaped less by religious or artistic, than by natural scientific, ideas about creation. It will argue that although the creative idea has received its most characteristic – or, at least, commonest – expression in art, the origins of the idea do not in fact lie in the discourse of art. Rather, the modern Western form of the creative idea as a specifically human possession is better understood as the product of new forms of thought entering into the wider cultural field from the emergent biological and life sciences, finding differential expression in diverse social fields both within and beyond the world of art, including politics, commerce, economics, and, most significantly, education. It argues that Western developments in the discourse of creativity therefore need to be explained not purely in terms of shifts within discourses internal to art, but also in terms of developments within the natural sciences themselves.

In so doing, the chapter draws on a methodology that understands creativity not as an innate human attribute, but as a discourse (Foucault, 1984: 76–100, 1994) – that is, as the product of certain groupings of statements that are enacted in a specific cultural context or contexts, drawing their logic from a set of common-sense assumptions to produce commonly accepted forms of knowledge. It attempts to analyse how such statements gravitate towards certain categories, concepts, and themes, and to examine what has been written and said on those subjects in order to analyse how they give rise to norms, values, and conventions. It attempts to understand how flows of knowledge and discourse give rise to material institutions and practices, through which they are regulated and perpetuated. In this way, the chapter is especially concerned to draw attention to what is deeply cultural in what might be called the ‘becoming biological’ of the creative idea – a term that is here used to designate a process whereby an idea that evolves historically at the end of the eighteenth century is, by the outset of the twentieth century, rendered a ‘natural’ attribute of the human person.

### Historical perspectives

The advent of mass digitisation projects across the arts and sciences has allowed scholars to examine how words and statements move across texts located in theatres of intellectual and cultural life that were previously too far apart to have attracted attention. Figure 10.1 shows

the results of a Google Ngram search, a lexical graphing tool that charts the yearly count of selected letter combinations found within the 5.2 million books digitised by Google, plotting on a chart those results for which there are more than forty appearances a year, averaged against the number of books printed. There are, of course, numerous dangers to be encountered in this kind of word searching. Not only can optical recognition tools be unreliable, but also the more significant problem is that the contents of digital archives have been preselected. In the case of Google Books, they reflect the cultural prejudices of generations of academic librarians, whose biases have traditionally favoured the educated elites. The featured search excludes vernacular writings, such as diaries and letters. It excludes ephemera, such as newspapers and pamphlets (although these can be located in other richer archives). It also excludes all of the important aspects of language that do not inhere in printed words. Nevertheless, the results of a Google Ngram search for the English words ‘creative’ and ‘creativity’ are suggestive. There is no sudden proliferation of the term in the eighteenth century; rather, the word appears to gain traction in the mid-nineteenth century, a period much derided by Romantic scholars, although French historian Jules Michelet (1860: 385) self-consciously styled it *un âge créateur* (‘a creative age’). Most obviously, Figure 10.1 demonstrates a massive increase in usage in the twentieth century, giving much encouragement to the handful of scholars who have speculated that the creative idea is largely a creature of heroic modernism. At the very least, the results of the n-gram search tend to support the suspicion that the history of the creative idea was culturally overdetermined in the modern period – that this is the period in which the discourse becomes codified.

However, what an n-gram cannot show is how the logic of a word shifts. An analysis of frequency reveals nothing about the ways in which words change their meaning (the featured data does not even filter for religious usage, for example). Moreover, the patterns of usage and the fields in which they occur are obscured. It is only a closer contextual analysis that can reveal that, despite the regularity of its appearance, the word ‘creative’ is often used to stipulate different things. Phrases such as ‘creative power’, ‘creative force’, and ‘creative energy’ tended to hold sway in the nineteenth century before dissipating. Moreover,

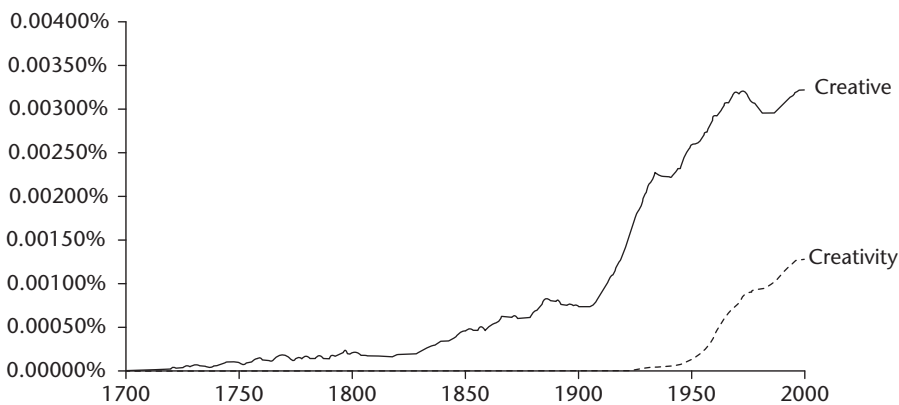


Figure 10.1 Use of the English terms ‘creative’ and ‘creativity’ between 1700 and 2000, measured by a Google Ngram

Source: <http://www.google.com> [accessed 10 August 2014]

these expressions are mobilised within the context of a surprisingly wide range of social activities – unexpectedly, particularly in newspaper archives, which do not appear on the featured graph, phrases such as the ‘creative power of railways’, the ‘creative power of steam’, the ‘creative power of capital’, and ‘creative industry’ are not atypical usages, for example. Indeed, in the course of the century, the word ‘creative’ not infrequently appeared divorced from any kind of artistic practice. Disraeli, for example, despaired that ‘great’ art would ever be made in Britain, despite the ‘multifarious pursuits of this active and creative people’ (*Art Journal*, 1862: 122). Henry Adams (1889: 124–5) penned a similar lament with respect to the ‘vast creative power’ of the American people, which had led to improvements in wool carding and cotton printing, but not to the production of art. Indeed, the merging of a vocabulary of creative powers with industrial imperatives was not an uncommon feature of the educational field, with authorities as far away as Australia being asked to recognise the ‘true nature and place of the industrial instinct, as the creative instinct’ (*Sydney Morning Herald*, 1888), although the most systematic working out of this idea is perhaps found in the growth of the kindergarten movement in the United States (Nelson, 2014). Indeed, even Matthew Arnold (1865: 4), who undoubtedly leaned towards art as his organising principle when he proclaimed that ‘a free creative activity, is the true function of man’, avowed that men (seldom women) ‘can have [creative activity] in well doing, they may have it in learning, they may even have it in criticising’. Indeed, in one of the small handful of early English usages of the noun ‘creativity’, academic Charles Henry Pearson (1859: 260), in transliterating from the French, also divorces the creative idea from the idea of imagination, declaring that the English possessed ‘eminently the deductive and comparative faculties, and the organ of creativity’, in comparison to the French, who were ‘imaginative’, but not ‘creative’. In short, the word ‘creative’, as it was used in the nineteenth century, is not consistent with the logic of high art, but with a popular scientific vocabulary of creative forces, powers, ethers, and energies that people used to describe a sense of agency in the rapidly changing world around them.

Secondly, it is noticeable that the cultural proliferation of the abstract noun ‘creativity’ is much later than most critics would have anticipated. Although my own research demonstrates that the word ‘creativity’ appears irregularly in a range of books and letters stretching back to the 1850s (the *Oxford English Dictionary* cites a coinage of 1875: Burchfield & Simpson, 1989), it is only in the mid-twentieth century that the abstract noun occurs with enough frequency to be plotted on the n-gram graph (Figure 10.1). In many ways, the word ‘creativity’, when it proliferates in the mid-twentieth century, appears less as an extension of the nineteenth-century term, in as much as it gains intelligibility measured against various post-Darwinian ways of thinking about natural creation (as featured in the work of John Dewey, for example), than it does in ways that are then heavily recodified via a heady mix of politics, psychology, art practice, and education, and the institutional imperatives of the American cold war context. This is one of the principal contexts in which, as historians Jamie Cohen-Cole (2009) and Michael Bycroft (2012) have cogently argued, scientists constructed a new psychological theory of creativity ‘directly on top of a foundation of popular wisdom’ (Cohen-Cole, 2009: 241). Indeed, according to the *Trésor de la langue française* (*Treasury of the French Language*) (Imbs & Quemada, 1971–94: 444) and *Historisches Wörterbuch der Philosophie* (*Historical Dictionary of Philosophy*) (Ritter, Gründer, & Gabriel, 1971: 1195), the French and German nouns *créativité* and *Kreativität*, although they have strong roots in continental European traditions, are actually Anglo-American derivatives that were exported back to Europe via the discipline of psychology, along with a new set of cultural frameworks in the mid-twentieth century, whereby they displaced earlier European terms.



## Critical issues and topics

What follows is an attempt to chart the shifts and fractures in the discourse of creativity as it emerges from a range of broadly scientific discourses in the late eighteenth century, impacts on the fields of art, education, and economics, fractures as natural scientific paradigms shift, and is dramatically reconstituted in the cold war period.

### *The sciences of life*

The reform of the Jardin des Plantes at the height of the French Reign of Terror provides a striking example of the way in which the language of natural philosophy afforded a means of talking about creativity. It was one of a handful of institutions that bore witness to the mighty struggle between a static, hierarchical, and religiously underpinned way of seeing the world, and an idea of dynamic change. Indeed, the idyllic garden on the left bank of the Seine would soon become the setting for some of the most acrimonious scientific debates of the nineteenth century – over the nature and definition of life, over the concept and meaning of time – and the clashes of mighty figures from Lamarck to Geoffroy and Cuvier would play a dramatic part in recasting the Western apprehension of both production and creation (see, for example, Jordanova, 2002).

Lamarck's early botanical writings provide no clue that their author would subsequently provide one of the most historically enduring (albeit scientifically erroneous) challenges to the idea of fixed species in the context of a permanent and unchanging nature (Bowler, 1988). Rather, it would seem that the overwhelming problems associated with the classification of the Jardin's collections – as they swelled with the spoils of war and revolution – drew Lamarck towards an apparently inevitable conclusion that the idea of fixed species was itself inadequate. He began envisioning a new idea of nature as a state of inexhaustible flux, as constantly producing new species and organisms, one from the other, from simple to complex. He grounded his work in the ideas of Buffon, but widely extended them. According to Lamarck, diversity of habitat, actions, and modes of life were constantly influencing living beings. Incrementally, over hundreds of thousands of years, the shapes of organisms were being transformed. Limbs were extended or atrophied through use or disuse, diversifying under the effect of long-standing habits. Giraffes forced to feed on trees in arid landscapes began stretching their necks. Feet, forced to clutch branches, transformed into claws, and arms, sculpted by air, transformed into wings. Over astonishing tracts of time – that is, astonishing by eighteenth-century standards – the diversified shapes and parts of these living creatures were preserved and propagated by generation (Bowler, 1984; Gould, 2002; Greene, 1981).

It was an epic and inspiring narrative – a heroic tale of creatures thrust up against the havoc of nature, of organisms overcoming mighty and seemingly insuperable odds. It was also a story that seemed to be larger than the thing that it actually described. It conjured up a thrilling vision of a world in which nothing was fixed, in which nothing occupied its allotted fate, and everything was in a state of stretching and striving. The question seemed not only to be about whether existing species might have been transformed from earlier species, or whether life had evolved from worms or aquatic filaments, but also to embody a whole new way of understanding the world. If animals could, as Lamarck was clearly stating, transform themselves, then it must have seemed to the students, officials, and foreigners who attended his lectures that so too could man create himself and his society. In the heady days of the French Revolution, it still seemed as if adaptability and talent could triumph over privilege

and birth. Lamarck's was one of the many scientific narratives emerging in this period that struck out against the biblical account of creation. The idea of spontaneous generation and change – of a self-sufficient, self-propelling nature capable of creating and transforming itself without God or autocracy – ushered in a new understanding of the world in which change and potential for change came to be considered both natural and normal, and the creative idea as a specifically human possession became thinkable – and, indeed, familiar.

Put more cautiously, the creative idea expresses an intellectual transformation that is congruent with the emergence of a new set of biological theories that flourished from the late eighteenth century onwards. However, in surveying the diverse scientific theories of the time, including not only Lamarck, but also Erasmus Darwin, Goethe, Blumenbach, Mesmer, and many others, it also becomes clear that the emergence of the creative idea cannot be equated with any simple or straightforward shift from a static to a dynamic view of nature, because the principal theoretical constructs that made up the field of the natural sciences – including 'life', 'evolution', and 'organism', for example – were themselves undergoing a series of transformations. There were vitalist and epigenetic models of creation, dualist and non-dualist, materialist and idealist. If there were a similarity that they shared, it was that they collectively seemed to represent a struggle to insert a dynamic element within a preformist matrix of thought (that is, a struggle to escape the idea that everything that a creature, and indeed the wider world, was to become had been pre-programmed by God at creation). Natural philosophers wanted to account for the changes that were observable in the world around them, but also wanted to account for change within a structure that would continue to allow nature to be elaborated as an orderly system.

Consider Coleridge, for instance. Despite its dramatic appeal, the vision of nature as matter in motion represented a troubling vision to this increasingly conservative poet, philosopher, and theologian. For Coleridge, what was popularly coming to be called 'creative power' was not a law of nature, but a principle of religion. He readily perceived the need to understand matter as energy in dynamic flux, but he was equally outraged by the new breed of scientists (the word was coined in 1834) who were attempting to explain creation as a kind of spontaneous or self-sufficient growth. For Coleridge, Lamarckian zoology, Geoffroyan anatomy, Erasmus Darwin, and what he fatefully called 'Darwinising' were the 'diseased fruit' of the French Revolution. The idea of self-evolving or creative powers being ascribed to nature gave sanction to further diseased ideas, up to and including an atomistic and democratic vision of society in which, as Coleridge (1959: 757) wrote in a letter in 1817 to Lord Liverpool, every 'atom has an equal claim with every other atom'. In short, the 'plebification' of science in the 'lecture bazaars' of dissenters at the nascent University of London and in the medical schools, with their 'ouran Outang theology', was sowing the seeds of popular revolt (Coleridge, 1830: 68–70).

It was not a coincidence that Coleridge produced his own counter-evolutionary theory of life, fashioning an effective transcendental alternative to evolutionary materialism, which, for many years, successfully circumscribed British advances in biology within a conservative frame (Desmond, 1989, 2002). It was also not a coincidence that the forms of ideation found in these scientific works provided the philosophical framework for Coleridge's famous theory of imagination (Levere, 2002), which, since the mid-twentieth century, has been rendered central in Anglo-American histories of the creative idea (for example Engell, 1981; Williams, 2001). Coleridge's famous statement on the 'Primary Imagination' is, like his 'Theory of Life', derived from Christian Platonism and defined in strictly religious terms as the 'living Power and prime Agent of all human perception, and as a repetition in the finite mind of the eternal act of creation in the infinite I AM' (Coleridge, 1817: 295). According to Coleridge,



primary imagination operates as an innate ‘Idea’ – a mark of God’s grace – that organises the flux of the world and brings coherence to otherwise chaotic sense impressions in the same way as the ‘living Power’ of ‘Life’ organises matter in biology. It is a version of the creative idea that is primarily theological and which valorises spirituality over materiality, stability over change, synthesis and unity over multiplicity, and order, hierarchy, and harmony over chaos, anarchy, and conflict. The same model was subsequently put to use in combatting the move towards religious emancipation in Coleridge’s (1830) best-known work of political philosophy *On Church and State*. It also occasioned his famous parting of ways with Wordsworth, whose empirical associative theory of imagination Coleridge relates directly to the dangers of evolutionary biology. As Coleridge wrote in 1815 in the letter that signalled the end of one of the great literary friendships of the century:

I understood that you would . . . have exploded the absurd notion of . . . Darwin, and all the countless Believers – even (strange to say) among Xtians [Christians] of Man’s having progressed from an Ouran Ooutang state – so contrary to all History, to all Religion, nay, to all Possibility – to have affirmed a Fall in some sense

(Coleridge, 1959: 574–5)

The Christian narrative of the ‘fall of man’ tends to govern Coleridge’s version of the creative idea (man, thus fallen, is forced to seek redemption in some transcendental region). Modern forms of the creative idea tend to be governed by secular narratives of the ‘ascent of man’ (Bronowski’s 1973 documentary of the same name being a case in point). The pivotal position that Coleridge holds in Anglo-American histories of the creative idea is perhaps better understood as a product of what Tim Milnes (1999: 321) once called the ‘looking glass’ effect of Romantic theory, arguing that the tangled webs of Romantic thought have perhaps proved too amenable to the need for ‘modern theory’s desire to see itself reflected there’. This was a process perhaps begun in the dehistoricising impulses of I. A. Richards’ *Coleridge on Imagination*, in which Richards (1935: 10) attempted to separate what he called a ‘relevant psychology’ from what he called the ‘huge ill-assorted fabric of philosophic and theological beliefs which is not, I think, a relevant part of it’. Later works systematically restyled romanticism as the ‘dramatic revolution in art and ideas’ that set in motion the ‘modern cultural phenomena of the avant-garde’ (Peckham, 1951, 1970: 25). In this respect, it is necessary to acknowledge the layered ways in which these works sought to contribute to modernism’s own narrative of legitimacy – legitimating the creative idea as an evolved form of romanticism by demonstrating that, as Jonathan Culler (2001: 173) has perspicaciously argued with respect to the works of M. H. Abrams, a ‘whole series of contemporary critical concepts, including those that one had thought of as anti-romantic, had in fact been formulated by Coleridge and other Romantic critics’.

### ***The education of man***

Coleridge’s philosophical works provide a convenient – because familiar – illustration of the ways in which natural scientific paradigms gave shape to nascent forms of the creative idea in a range of fields. However, there is an even more compelling argument that would trace scientific forms of ideation through the field of education from the scientific interests of Herder and Goethe, through to Humboldt and Hegel, and across the Atlantic to philosophers of disparate traditions, including William Ellery Channing, Ralph Waldo Emerson, and – in an altogether different form – John Dewey (Lovlie, Mortensen, & Nordenbo, 2003;

Siljander, Kivela, & Sutinen, 2012). It was perhaps Herder, more than any other philosopher, who gave distinctive shape to what is now called the *bildung* tradition, and this is one of the many reasons why Joas (1996: 70–144) gives Herder’s work pre-eminence in his history of the creative idea. Indeed, Elias Palti (1999: 336–7) has argued that Herder’s work anticipated the programme of science illustrated in novels such as *Frankenstein* by several decades. Moreover, in considering the emergence of the creative idea in the field of education, it becomes clear that the creative idea was also influential in the emergence of the modern idea of the ‘self’ not as ‘organism’, but as ‘subject’ (Seigel, 2005: 332–60).

Herder’s work is distinctive for the way in which it constructs the creative idea in material and anthropological, rather than transcendental or spiritual, terms. For Herder, nature – that is, material reality – was the ground of physics, as well as metaphysics, of active and creative powers. Human beings, according to Herder, were not innately endowed with the ‘faculty of Reason’ as Kant would have it (or the ‘primary imagination’ as Coleridge reconceived Kant); rather, man’s reason was destined to be developed – that is, cultivated, or rather self-cultivated. Hence thought is neither abstract nor universal, but is the sum of the education of man. Once again, Herder’s version of the creative idea is clearly derived from a preformist scientific matrix into which he constantly struggled to insert a dynamic element, drawing largely on the work of Albrecht Haller, from whose botanical and anatomical investigations Herder derived his theory of *Kraft*, or ‘creative powers’ (Palti, 1999). Herder’s was a system of thought in which a human organism worked out its own mode of being constituted partly from a God-given ‘inner germ’ and partly from the environment in which it nurtured itself. For Herder, *bildung* referred to a process of both unfolding and interaction, whereby everything existed in a state of stretching and striving to become exactly what it was – to be, in this sense, self-realised (self-realisation being a paradigm for the creative idea that retains popularity to this day).

Herder’s (1772) version of the creative idea was perhaps most accessibly put forward in his *Essay on the Origins of Language*, an essay in which he argued that philosophers of language had hitherto ignored the practical workings of the human mind as it struggles to understand and make use of words. According to Herder, thought takes place within, and is structured by, language. Hence the ‘reflective’ consciousness, or ‘circumspection’, that gives rise to language also transforms the inner life of human beings. For this reason, thought is not abstract or culturally neutral, but is intimately bound up with the language in which human beings are socialised and is shaped by a particular worldview. Although Herder characteristically likened a human being to a ‘plant’ or a ‘tree’ – that is, to something that ‘grows’ and can be ‘cultivated’ in an agrarian sense – he is also constantly at pains to make it clear that human beings are not children of nature, but products of society. Indeed, this emphasis on the socially constructed nature of language gives rise to a theme that dominates the history of the creative idea well into the modern era – namely, the idea of a creative individual linked by a common language to a common culture: an idea that was guided by an apprehension of the creative functions of language as it was embodied not only in the work of poets or writers, but also in the everyday language of the ordinary people who have shaped – and continue to shape – that language.

In Herder’s hands, *bildung* came to embody a dizzying array of challenges to Enlightenment rationality. Unusually for a clergyman, he argued that *bildung* could not be secured from God or from the privilege of aristocratic birth, but only through the activation of individual character. His philosophy was eventually to include the novel propositions that the genesis of ‘creative’ human making lay in irregularity and chance, that the struggle against needs and wants produces change, that the lack of knowledge produces innovation, and that the

wrestling with error produces improvement. Creative energy – what he called *Kraft*, meaning ‘creative powers’ or ‘life force’ – was, according to Herder, a kind of undirected explosiveness, containing productive consequences and constructive potential. Human beings are centres of power, endowed with agency and creative capacity:

Whatever the influence of the [external] climate, every man, every animal, every plant, has its own climate. For every living being absorbs all the external influences in a manner peculiar to itself, and modifies them according to his organic powers.

(Herder, 2010 [1784–91]: 293)

Herder’s theory of artistic production was also significant for what might be called its proto-democratic aspect. In the late eighteenth century, the idea that the ‘folk’ possessed a culture – that the ‘folk’ were not a rabble or a mob, but a ‘people’ – had tremendous political novelty. The emergence of the idea of a people’s culture also gave shape to the concept of the nation: not a nation predicated on boundaries that had been drawn upon a map in the wake of bloody wars or marriages between tyrants, but a nation conceived (in the language of the natural sciences) as a ‘natural growth’. The *bildung* tradition was increasingly articulated within a dynamic in which the self was created as a complement or catalyst to the national, with varied political results. It was used in diverse ways to link the creative idea to the idea of the nation and the national culture, entangling the creative idea with the history of the modern nation state in ways which resonate to this day.

Herder’s ideas were not disseminated through his own works, but more often through the reworking of his ideas in the books of others, and often in the works of those with whom he was in disagreement (Arnold, Kloocke, & Menze, 2009; Forster, 2012). Humboldt, for example, built on Herder’s ideas, but was interested in offering a more radical validation of Kant’s idea of human freedom by giving reflective consciousness power over the material world. Hegel also built on Herder’s ideas, but understood individual freedom to be realised not through culture, but through ‘the State’. Marx famously turned Hegel’s work upside down, stripping it of its abstractions (spirit does not make man; man makes spirit). But, for Herder, freedom was an abstraction, and therefore a fiction. His philosophy sought not freedom, but a kind of limited spontaneity for individuals – a kind of creativity – that guaranteed to each its own particular character.

However, despite the great subtleties of Herder’s philosophy, in terms of the creative idea *bildung* was circumscribed by a notion of creativity within fixed limits: the possibility of self-realisation was predicated on an idea of the individual unfolding within destiny. To allow creativity to be radical and open-ended would require a reconfiguration of the century’s most deeply held beliefs. This challenge came once again from the domain of the natural sciences – this time in the guise of Charles Darwin. However, the impact of the Darwinian revolution on diverse fields of knowledge, as Bowler (1988) has argued, was somewhat delayed.

### ***The wealth of nations***

If natural scientific forms of ideation found their way into art and literature, political philosophy, and education, so too did they emerge in the field of economics, where a range of commercial imperatives were giving rise to new ideas about economic ‘growth’. The work of the French physiocrats had already offered a significant challenge to the prevailing mercantilist doctrine that economic growth was impossible (the economy was a zero sum

game). This challenge was famously expanded by Adam Smith, whose articulation of the principles of the division of labour, and the concepts of productive and unproductive labour, gave currency to the belief that the wealth indeed could be ‘created’. This is a territory that has been little explored. However, Mirowski (1994) has demonstrated the extent to which biological metaphors were a shaping force in the works of Francois Quesnay, Adam Smith, Alfred Marshall, Stanley Jevons, Karl Marx, and Joseph Schumpeter. Following this logic, it may be possible to read the plethora of biological metaphors that flourished in political economy as part of a wider struggle to insert a dynamic element into a ‘fixist’ view of nature. Consider, for example, Malthus’ famous metaphor of the beggar at ‘nature’s feast’ who has ‘no claim of right to the smallest portion of food’:

At nature’s mighty feast there is no vacant cover for him. She tells him to be gone, and will quickly execute her own orders, if he does not work upon the compassion of some of her guests. If these guests get up and make room for him, other intruders immediately appear . . . The order and harmony of the feast is disturbed, the plenty that before reigned is changed into scarcity; and the happiness of the guests is destroyed

(Malthus, 1803: 531)

This was the image that helped to make Malthus, as his biographer James Bonar (1885: 1) put it, the ‘best abused man in Europe’. William Hazlitt, Percy Shelley, and even Robert Southey attempted to refute Malthus’ metaphor. But it was probably Marx who, in continuing the tirade against Malthus at mid-century, effectively shifted the grounds away from the ethics of distribution towards the ‘Promethean’ idea that man-made capital, science, and labour could substitute for natural resources indefinitely. Indeed, the idea that *L’homme est son propre Prométhée* (‘humanity is its own Prometheus’), as Michelet (1893–98 [1869]: vii) wrote in a separate context, adapting Vico’s phrase, was increasingly found in reports on commercial projects in the popular press, where the capacity to break through the Malthusian cycle was increasingly said to reside in the abstract, if not mystical, ‘creative power’ that was attached to the forces of production.

A particularly vivid example is found in the works of Andrew Ure, who not only invokes biological images to portray the industrialist as the ‘life force’ (Ure, 1835: 108) or ‘elemental power’ that has been made to ‘animate millions of complex organs’, but also frequently mixes his biological metaphors with images of a more mechanistic origin, so that ‘self-acting’ and ‘automatic’ machines are deemed capable of ‘infusing into wood, iron and brass an intelligent agency’ (Ure, 1835: 2). The insertion of mechanistic images into natural metaphors is also a feature of the popular press, in which mechanical and biological metaphors are commonly found sitting untroubled alongside each other. Machines are portrayed as ‘vital’ and ‘self-animating’, in a creative fantasy in which iron rails and telegraph wires give ‘birth’ to wealth and new markets; hence the popularity of expressions such as the ‘creative power of machinery’, the ‘creative power of free trade’, and the ‘creative power of capital’. Indeed, one of the most celebrated creative objects of the nineteenth century was not poetry, but the railway, and the ‘creative power of railways’ (*Morning Post*, 1847) was repeatedly extolled in both the metropolis and its colonies, such as Australia, where the ‘rise and progress’ of cities was perennially attributed to the ‘creative power of railways’ (*South Australian Register*, 1848), which were, to quote yet another American example, a ‘wonderful mechanical appliance for the elevation of a country in creative power’: ‘I know that the thing looks strange: but, sir, the railroad itself is a strange and wondrous thing. It is a creative power’ (*Athens Post*, 1856).

The ‘creative’ and ‘life-giving’ power attributed to commerce and industry was so pronounced that it inevitably drew the ire of contemporary clerics. Thomas Chalmers (1832: 60), for example, in the year before he railed against the new evolutionary biology in the first of the Bridgewater Treatises, published a work on political economy that drew attention to what he characterised as the increasingly widespread error ‘that men should have been led to imagine as if commerce had a commencing and a creative virtue’. Against this heresy, Chalmers (1832: 80) was at pains to reassert the religious dimensions of what he saw as the profoundly erroneous belief that ‘there was a creative and an emanating power in capital which could overleap’ the limits of nature. This metaphysical unease repeatedly registered in the economic imaginings of writers such as Dickens, Carlyle, and Zola (Conrad, 2007: 315–36). However, the most enduring attack on the new vogue for creative metaphors came from Karl Marx, who castigated the industrialists and economists for equating humanity with machinery and conferring creative ‘life’ upon capital. As Marx indelibly wrote, when a worker sells his labour-power as abstract labour in the form of a value, he alienates his own creative power: the worker ‘impoverishes himself because the creative power of his labour establishes itself as the power of capital, as an alien power confronting him’ (Marx, 2005 [1858]: 660). He continues: ‘It is clear, therefore, that the worker cannot become rich in the exchange, since in exchange for his labour capacity as a fixed, available magnitude, he surrenders its creative power, like Esau his birthright for a mess of pottage’ (Marx, 2005 [1858]: 307). The Marxian ideal of creative self-realisation through work has particular poignancy for being forged against the image of the spectral monster of ‘creative capital, sucking its living soul out of labour’ (Marx, 2005 [1858]: 660).

Darwin famously claimed that his theory of evolution was forged following a reading of Malthus – and, eventually, Darwin’s work would give rise to a new form of the creative idea for a world in which human beings were no longer destined to unfold naturally in orderly or preformed ways, but to engage in acts of self-making defiance of nature’s indifference.

### ***The influence of Darwin***

The immediate influence of Darwin on philosophy was, as John Dewey once argued, largely disguised. In the period between the publication of *On the Origin of Species* (1859a) and Dewey’s speech at Columbia University (1910: 1–19), in which this argument was articulated, much of the philosophical grappling with evolution remained basically Lamarckian. The significant thinkers who took up the challenge posed by Darwin – including some of the great atheists of the century – tried to harmonise Darwinian concepts with the pre-Darwinian worldview that they had inherited. They continued to build their respective versions of the creative idea along teleological lines, devising theories of incremental or orderly creation that Dewey (1910: 12) derided as ‘design on the instalment plan’. In philosophy, for example, Darwin’s work gave impetus to a range of speculative evolutionary systems, updating older systems of thought with what might be called a scientifically legitimated form of Providence. God – or rather what we might call the crossed-out God – was variously reconceived as force, energy, and creative power. God was vitality, or living power. God was Spencer’s (1923) ‘Unknowable’. God was Bergson’s (1907) *Élan Vital* or Whitehead’s (1926) ‘Principle of Concretion’ (see also Whitehead, 1929). Even in Germany, where the idea of the ‘struggle for existence’ profoundly informed cultural thought – becoming, like Nietzsche’s ‘will to power’, a ubiquitous cliché – philosophers balked at the idea that such a struggle could be entirely without purpose, leading scientists such as Ernst Haeckel to recreate natural selection as the means through which a more fundamental law of progress manifested itself.



The Romantic systems of the nineteenth century had valorised change, but only change within fixed limits. In terms of the creative idea, what was revolutionary in Darwin's work did not centre on the radical disenchantment of the world, the remorseless transformation of soul into psyche, or the disappearance of God or religion; rather, the idea of experience itself was transformed. As Dewey (1917: 23) put it:

Genuine projection of the novel, deliberate variation and invention, [were] idle fictions in [the pre-Darwinian] version of experience. If there ever was creation, it all took place at a remote period. Since then, the world has only recited lessons.

In this older version of experience, the possibilities for any genuine accretion of novelty – particularly in any ontological sense – were radically foreclosed. Variation was subordinate to unity, flux was subordinate to order, philosophy and art therefore aimed at unity and synthesis, and the operations of randomness and chance that were integral to the emergence of the new form of the creative idea were largely unthinkable. 'Change as change [was] mere flux and lapse; it insults intelligence', wrote Dewey (1910: 6–7): 'Genuinely to know [was] to grasp a permanent end that realises itself through changes, holding them thereby within the metes and bounds of fixed truth.' Against these grand, permanent, and dignified abstractions, what Darwin had offered was, as Herschel famously put it, 'the law of higgledy-piggledy' (quoted in Darwin, 1859b). In Dewey, experience is understood to be essentially creative. Situated creativity becomes *the* fundamental concept. The individual in experience is possessed of 'creative intelligence' and is the 'bearer of a creatively employed mind' (Dewey, 1917: iii). Man ceases to be a 'fallen creature', as Coleridge believed, and becomes a 'problem-solving animal' – and the way in which he or she solves problems, in and through the material world, is said to be creative.

Dewey's work represents one of the many ways in which the creative idea encountered the foundations of the emerging discipline of psychology (another being through Freud). He disposed, for example, of the concept of innate ideas, so cherished by Romantic visionaries:

It soon becomes obvious that while there is assuredly something a priori – that is to say, native, unlearned, original – in human experience, that something is not knowledge, but is activities made possible by means of established connexions [*sic*] of neurons. This empirical fact does not solve the orthodox problem; it dissolves it. It shows that the problem was misconceived, and solution sought by both parties in the wrong direction.  
(Dewey, 1917: 19)

Dewey's work had a profound impact on American culture, especially in progressive education. However, Dewey's reconstruction of the creative idea was to be radically transformed in the cold war era – an age in which traditional notions of individual genius were refashioned, drawing directly on popular notions of creativity then circulating in the arts. In this respect, what needs to be addressed is a parallel history running counter to the movements outlined in this chapter: one that focuses on the discourses within modernism through which art was relentlessly envisioned as a metaphor for the creative idea, and the creative idea was eventually to be produced as a category of art.

### ***Cold war creativity***

The Progressive Education Association, which had gathered around Dewey, disbanded in 1959, imploding amidst a self-proclaimed national crisis in education. Arthur Bestor



published *Educational Wastelands* in 1953, and MGM released the *Blackboard Jungle* in 1955 to a major public outcry. Newspapers carried interviews with critics under headlines such as ‘Mass Produced Mediocrity’ (*Chicago Daily Tribune*, 1956a) and ‘The Worship of Mediocrity’ (*Chicago Daily Tribune*, 1956b). Amidst the furor, the Russians launched the Sputnik – and the education crisis spilled onto the front page. Progressive education promoted conformity and ‘group-think’, argued critics such as Hyman Rickover (1959: 21), better known as the man who directed the development of the atomic submarine, whereas a ‘future dependent on creative brains’ (Rickover, 1959: 31) required a qualitatively different kind of education that was capable of producing ‘inner-directed, obstreperous, creative people; sworn enemies of routine and the status quo’ (Rickover, 1959: 22). In opposition to totalitarian Russia, the United States needed to support the kind of ‘freedom essential to the creative worker’ (Rickover, 1959: 21).

One of the striking features of this new formation of the creative idea was that it was defined culturally and scientifically in proximity to historically specific ideas about democracy and freedom, and in opposition to ideas about conformity and authoritarianism. In the social sciences, for example, the mid-twentieth century saw the growth of publications expressing fears about conformity, such as David Reisman’s (1950) classic work of sociology, *The Lonely Crowd*. For American liberals, conformity was particularly worrying, because it revealed a crucial lack of distance between American and Russian models of politics. In contrast to authoritarianism, cold war intellectuals sought to propose, and indeed implement, a positive model of American citizenship, one of the most highly valued attributes of which was creativity (Cohen-Cole, 2009).

In the wake of the Sputnik, the US government passed far-reaching legislation in the form of the National Defense Education Act of 1958, providing unprecedented funding for universities, colleges, and schools. In his presidential address to the American Psychological Association, J. P. Guilford (1950: 445) called scientific neglect of creativity ‘appalling’. Bibliographic surveys indicate that there were as many studies of creativity published between 1950 and 1965 as there had been in the previous 200 years. Much of this work grew out of, or was funded by, military and defence concerns, and was spurred on by the perceived failure of educators to produce the original geniuses that the newspapers seemingly demanded.

This was the political and intellectual climate in which E. Paul Torrance (1966) studied developmental aspects of creativity and their practical application in education, focusing on fostering individualism and developing imagination among gifted and talented children. Torrance developed a series of tests based upon Guilford’s divergent thinking model that were popularised not only as a diagnostic instrument, but also, more influentially, as a teaching tool. The Torrance Tests for Creative Thinking (TTCT) targeted specific traits, including fluency, flexibility, originality, and problem solving. Children were asked to find multiple uses for everyday objects, such as tin cans, to make responses to various drawings, and to predict the outcomes of a range of situations (Torrance, 1966).

Tests like the TTCT, as Sawyer (2012: 46–52ff) has argued, tended to privilege a singular historical understanding of creativity that valued individual creativity over group creativity, exceptionalism over everyday creativity, and Western cultural constructs over non-Western ideas. The TTCT was also predicated upon, as Baer (2011: 312) has argued, a definition of creativity as consisting in ‘coming up with wild ideas’. Whether or not social scientists continue to believe, like Torrance, that the creative idea is usefully constituted by ‘long lists’ of ‘wild and crazy ideas’, or, like Baer (2011: 312), believe that such a definition of creativity is ‘warped’ and ‘harmful’, tests and teaching tools such as the

TTCT nevertheless impacted dramatically on Western educational methods in the decades during which they were in the ascendant. Ogata (2013) has recently argued not only that cold war ideas about creativity in children were a construction of mid-century scientific studies, but also that these scientific ideas were perpetuated through the manufacture of toys, picture books, television shows, architecture, and interior design. Torrance (1963: 3) himself claimed that results from creativity studies had engendered ‘truly revolutionary changes in educational objectives, curriculums, instruments for assessing mental growth and educational achievement, instructional procedures, counseling and guidance procedures, supervisory and administrative practices, and even in school building planning’. This period also saw the rapid proliferation of a new word: the abstract noun, ‘creativity’. With its origins in cold war psychology, it was exported across the world, where it merged with earlier European terms.

### Future directions

Keith Sawyer (2012: 7) has argued that, ‘to explain creativity, we first need to agree on what it is, and this turns out to be surprisingly difficult’. This chapter has attempted to demonstrate that this question cannot be answered by any simple accounting for the ways in which the idea of creativity has shifted from period to period, or culture to culture. Still less is it a matter of finding neural correlates in human consciousness for what I have argued are essentially discursive fictions. The creative idea is not something to be ‘discovered’ so much as it is a cultural construction or invention. Nevertheless, to draw attention to the discursive, and therefore fictional, nature of the idea is not to argue that there is no such thing as creativity – for discourse has a weight, and a materiality, and a productive power. Rather, it points towards a need for a reflexive and culturally sensitive understanding of creativity that is capable of acknowledging the ways in which the creative idea has been shaped by – and has become a constant focus for – the cultural anxieties of our age.

### Related topics

creativity and dialogue; creativity and discourse analysis; everyday language creativity

### Further reading

Foucault, M. (1994) *The Order of Things: An Archaeology of the Human Sciences*, New York: Vintage/Random House.

Foucault’s classic argument with respect to the emergence of ‘modern man’ as a historical category – that is, the result of a specific series of discourses and discursive practices – remains a central and indispensable model for discourse analysis.

Joas, H. (1996) ‘Metaphors of creativity’, in *The Creativity of Action*, Cambridge: Polity Press, pp. 70–144.

Hans Joas’ attempt to reconstruct a sociological theory of action according to a pragmatist conception of creativity is a less obvious choice. However, this chapter in his book draws attention to democratic, as opposed to elitist, traditions of creativity, and the analysis of the historical emergence of a range of linguistic metaphors, from Herder’s expressivism through to Dewey’s metaphors of adaptation, is invaluable.

Mason, J. H. (2003) *The Value of Creativity: The Origins and Emergence of a Modern Belief*, Farnham: Ashgate.

This is one of the few historical works to question whether an entity such as creativity can be said to exist prior to its articulation in language. Although this question is not resolved, the way in which Mason posits the central novelty of eighteenth-century concepts, locating them as products of wider transformations in commerce, economics, and politics, is invaluable.

## References

- Abrams, M. H. (1971) *The Mirror and the Lamp: Romantic Theory and the Critical Tradition*, New York: Oxford University Press.
- Adams, H. (1889) *History of the United States*, New York: Scribners.
- Arnold, G., Kloocke, K., and Menze, E. (2009) 'Herder's reception and influence', in H. Adler and W. Koepke (eds) *A Companion to the Works of Johann Gottfried Herder*, Rochester, NY: Camden House, pp. 391–420.
- Arnold, M. (1865) *Essays in Criticism*, London: Macmillan.
- Art Journal*, *The* (1862) 'Art in Parliament', 1: 122.
- Athens Post* (1856) 'Triumph of railways', 14 March, p. 1.
- Baer, J. (2011) 'How divergent thinking tests mislead us: Are the Torrance Tests still relevant in the 21st century? The Division 10 debate', *Psychology of Aesthetics, Creativity, and the Arts*, 5(4): 309–13.
- Bergson, H. (1907) *L'Évolution Créatrice*, Paris: Les Presses Universitaires de France.
- Bestor, A. (1953) *Educational Wastelands*, Urbana, IL: University of Illinois Press.
- Blumenberg, H. (1985) 'Secularisation: Critique of a categorical historical wrong', in H. Blumenberg (ed.) *The Legitimacy of the Modern Age*, trans. R. M. Wallace, Cambridge, MA: MIT Press, pp. 3–124.
- Bonar, J. (1885) *Malthus and His Work*, London: Macmillan.
- Bowler, P. J. (1984) *Evolution: The History of an Idea*, Baltimore, MD: Johns Hopkins University Press.
- Bowler, P. J. (1988) *The Non-Darwinian Revolution: Reinterpreting a Historical Myth*, Berkeley, CA: University of California Press.
- Bronowski, J. (dir.) (1973) *The Ascent of Man*, London: British Broadcasting Corporation.
- Burchfield, R., and Simpson, J. (eds) (1989) *Oxford English Dictionary*, 2nd edn, Oxford: Oxford University Press.
- Bycroft, M. (2012) 'Psychology, psychologists, and the creativity movement: The lives of method inside and outside the cold war', in M. Solovey and H. Craven (eds) *Cold War Social Science: Knowledge Production, Liberal Democracy and Human Nature*, New York: Palgrave Macmillan, pp. 197–214.
- Chalmers, T. (1832) *On Political Economy: In Connexion with the Moral State and Moral Prospects of Society*, Glasgow: William Collins.
- Chicago Daily Tribune* (1956a) 'Mass produced mediocrity', 28 November, p. 16.
- Chicago Daily Tribune* (1956b) 'The worship of mediocrity', 6 July, p. 12.
- Cohen-Cole, J. (2009) 'The creative American: Cold war salons, social science, and the cure for modern society', *Isis*, 100(2): 219–62.
- Coleridge, S. T. (1817) *Biographia Literaria*, London: Rest Fenner.
- Coleridge, S. T. (1830) *On the Constitution of the Church and State*, London: Hurst, Chance & Co.
- Coleridge, S. T. (1959) *Collected Letters, Vol. IV: 1815–19*, ed. E. L. Griggs, Oxford: Clarendon Press.
- Conrad, P. (2007) *Creation: Artists, Gods, and Origins*, London: Thames & Hudson.
- Culler, J. (2001) 'The mirror stage', in *The Pursuit of Signs: Semiotics, Literature, Deconstruction*, London: Routledge, pp. 172–87.
- Darwin, C. (1859a) *On the Origin of Species*, London: John Murray.
- Darwin, C. (1859b) Letter to Lyell, 10 December, Darwin correspondence database, entry 2575. Available online at <http://www.darwinproject.ac.uk> [accessed 20 May 2015].
- Dawson, P. (2005) 'From imagination to creativity', in *Creative Writing and the New Humanities*, London: Routledge, pp. 21–47.
- Desmond, A. (1989) *The Politics of Evolution: Morphology, Medicine and Reform in Radical London*, Chicago, IL: Chicago University Press.

- Desmond, A. (2002) 'Lamarckism and democracy: Corporations, corruption and comparative anatomy in the 1830s', in J. R. Moore (ed.) *History, Humanity and Evolution: Essays for John C. Greene*, Cambridge: Cambridge University Press, pp. 99–130.
- Dewey, J. (1910) *The Influence of Darwin on Philosophy and Other Essays in Contemporary Thought*, New York: Henry Holt.
- Dewey, J. (1917) *Creative Intelligence*, New York: Henry Holt.
- Engell, J. (1981) *The Creative Imagination: Enlightenment to Romanticism*, Cambridge, MA: Harvard University Press.
- Forster, M. N. (2012) *After Herder: Philosophy of Language in the German Tradition*, Oxford: Oxford University Press.
- Foucault, M. (1984) 'Nietzsche, genealogy, history', in P. Rabinow (ed.) *The Foucault Reader*, New York: Penguin, pp. 87–90.
- Foucault, M. (1994) *The Order of Things: Archaeology of the Human Sciences*, New York: Vintage.
- Gould, S. J. (2002) *The Structure of Evolutionary Theory*, Cambridge, MA: Harvard University Press.
- Greene, J. C. (1981) *The Death of Adam: Evolution and Its Impact on Western Thought*, Iowa City, IA: Iowa State University Press.
- Guilford, J. P. (1950) 'Creativity', *American Psychologist*, 5(9): 444–54.
- Herder, J. G. (2010 [1772]) 'Essay on the origin of language', in J. G. Herder on *Social and Political Culture*, trans. F. M. Barnard, Cambridge: Cambridge University Press, pp. 117–78.
- Herder, J. G. (2010 [1784–91]) 'Ideas for a philosophy of the history of mankind', in J. G. Herder on *Social and Political Culture*, trans. F. M. Barnard, Cambridge: Cambridge University Press, pp. 253–326.
- Imbs, P., and Quemada, B. (eds) (1971–94) *Trésor de la Langue Francaise*, Paris: Éditions du Centre national de la recherche scientifique.
- Joas, H. (1996) *The Creativity of Action*, Cambridge: Polity Press.
- Jordanova, L. (2002) 'Nature's powers: A reading of Lamarck's distinction between creation and production', in J. R. Moore (ed.) *History, Humanity and Evolution: Essays for John C. Greene*, Cambridge: Cambridge University Press, pp. 71–95.
- Kristeller, P. O. (1983) 'Creativity and tradition', *Journal of the History of Ideas*, 44 (1): 105–13.
- Levere, T. H. (2002) *Poetry Realised in Nature: Samuel Taylor Coleridge and Early Nineteenth-century Science*, Cambridge: Cambridge University Press.
- Lovlie, L., Mortensen, K. P., and Nordenbo, S. E. (2003) *Educating Humanity: Bildung in Postmodernity*, Malden, MA/Oxford: John Wiley & Sons.
- Malthus, T. R. (1803) *An Essay on the Principle of Population*, 2nd edn, London: J. Johnson.
- Marx, K. (2005 [1858]) *Grundrisse: Foundations of the Critique of Political Economy*, London: Penguin.
- Michelet, J. (1860) 'Note 2: Éducation Ateliers et jardins d'enfants', in *La Femme*, Paris: Hachette, pp. 384–5.
- Michelet, J. (1893–8 [1869]) *Histoire de France: Moyen Âge, Vol. I*, Paris: Ernest Flammarion.
- Milnes, T. (1999) 'Through the looking-glass: Coleridge and post-Kantian philosophy', *Comparative Literature*, 51(4): 309–23.
- Mirowski, P. (ed.) (1994) *Natural Images in Economic Thought: Markets Read in Tooth and Claw*, Cambridge: Cambridge University Press.
- Morning Post* (1847) 'Morning post', 1 January, p. 4.
- Nahm, M. C. (1947) 'The theological background of the theory of the artist as creator', *Journal of the History of Ideas*, 8 (3): 363–72.
- Nahm, M. C. (1956) *The Artist as Creator: An Essay of Human Freedom*, Baltimore, MD: Johns Hopkins University Press.
- Negus, K., and Pickering, M. (2004) *Creativity, Communication and Cultural Value*, London: Sage.
- Nelson, C. (2010) 'The invention of creativity: The emergence of a discourse', *Cultural Studies Review*, 16(2): 49–74.
- Nelson, C. (2014) 'The creative child: Constructing creativity through early childhood education in modern America', *Knowledge Cultures*, 2(3): 29–50.
- Ogata, A. F. (2013) *Designing the Creative Child: Playthings and Places in Midcentury America*, Minneapolis, MN: University of Minnesota Press.
- Palti, E. (1999) 'The "metaphor of Life": Herder's philosophy of history and uneven developments in late eighteenth century natural sciences', *History and Theory*, 38(3): 322–47.

- Pearson, C. H. (1859) 'Civilization in Russia', *Bentley's Quarterly Review*, 1: 260.
- Peckham, M. (1951) 'The triumph of romanticism', *PMLA*, 66(2): 5–23.
- Peckham, M. (1970) *The Triumph of Romanticism and Other Essays*, Columbia, SC: University of South Carolina Press.
- Pope, R. (2005) *Creativity: Theory, History, Practice*, London: Routledge.
- Reisman, D. (1950) *The Lonely Crowd*, New Haven, CT: Yale University Press.
- Richards, I. A. (1935) *Coleridge on Imagination*, New York: Harcourt, Brace & Co.
- Rickover, H. G. (1959) *Education and Freedom*, New York: Dutton.
- Ritter, J., Gründer, K., and Gabriel, G. (eds) (1971) *Historisches Wörterbuch der Philosophie*, Darmstadt: Wissenschaftliche Buchgesellschaft.
- Sawyer, R. K. (2012) *Explaining Creativity: The Science of Human Innovation*, 2nd edn, Oxford: Oxford University Press.
- Seigel, J. (2005) *The Idea of the Self: Thought and Experience in Western Europe since the Seventeenth Century*, Cambridge: Cambridge University Press.
- Shiner, L. (2003) *The Invention of Art*, Chicago, IL: University of Chicago Press.
- Siljander, P., Kivela, A., and Sutinen, A. (2012) *Theories of Bildung and Growth: Connections and Controversies between Continental Educational Thinking and American Pragmatism*, Rotterdam: Sense Publishing.
- South Australian Register* (1848) 'Wonders of steam and rail', 12 January, p. 4.
- Spencer, H. (1923) *The Unknowable*, Oxford: Clarendon Press.
- Sydney Morning Herald* (1888) 'The technical board and the minister for education', 17 August, p. 3.
- Tatarkiewicz, W. (1980) *A History of Six Ideas*, London: Springer.
- Torrance, E. P. (1963) *What Research Says to the Teacher: Creativity*, Washington, DC: National Education Association.
- Torrance, E. P. (1966) *Torrance Tests of Creative Thinking: Verbal Forms A and B*, Princeton, NJ: Personnel Press.
- Ure, A. (1835) *The Philosophy of Manufactures*, London: Charles Knight.
- Weiner, R. P. (2000) *Creativity and Beyond: Cultures, Values and Change*, Albany, NY: SUNY Press.
- Whitehead, A. N. (1926) *Religion in the Making*, New York: Macmillan.
- Whitehead, A. N. (1929) *Process and Reality*, New York: Macmillan.
- Williams, R. (1985) *Keywords: A Vocabulary of Culture and Society*, Oxford: Oxford University Press.
- Williams, R. (2001) *The Long Revolution*, Peterborough, ON: Broadview Press.

