2

Invention, Creation, Production

To make sense of making, we must first make sense of the word 'making'. To that end, this chapter defines the terms that are employed throughout the remainder of the book. No definitions are perfect, and the ones offered here do not pretend to be exclusive and comprehensive, but they will hopefully disperse the clouds of vagueness that so often obscure our talk of making.

Making – a Difference

Our starting point is to acknowledge that the word 'making' does too much work. We think we know what someone means when they say 'Arthur made the dinner', and normally in a vague sense we do; but knowing that Arthur made the dinner doesn't tell us whether he reheated a ready-made meal and brought it to the table, or whether he had a hand in devising the recipe, preparing the ingredients, combining the ingredients, or cooking the ingredients. It is even possible that he had nothing at all to do with presenting the food but was such convivial company that he 'made the dinner' in the sense that he made it a social success. In this chapter, I tease apart the sense of three words that are sometimes employed interchangeably as synonyms for making. They are 'Invention', 'Creation', and 'Production'. My definitional distinctions between Invention, Creation, and Production are based on the distinct etymologies of the words. I therefore call them, collectively, the three 'Etymologies of Making'. Of course, etymological or 'original' meanings evolve over time, so my etymology-inspired definitions will inevitably differ from, and to some extent conflict with, some commonplace understandings of the words 'invention', 'creation', and 'production'. For this reason, from hereon I have given words a capital initial when I use them as my own terms of art.

To give a brief example of the utility of the three Etymologies of Making, take the phrase 'law-making'. We know that legislatures (parliaments) make law, but do judges? A great deal of intellectual effort has been expended over the years in disputing whether judges do or do not 'make' law. Some have said that when judges apply, develop, clarify, and declare the existing law, this is not the same as making law. Others have argued the exact opposite. In Chapter 4, we will see that such arguments practically evaporate when one

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asks, with more precise language, whether judges 'Invent', 'Create', or 'Produce' law. Later in this chapter, we examine the three Etymologies of Making in depth, but first, and more briefly, we will consider another trio of terms, which I call the three 'Modalities of Making'.

Modalities of Making

The three Modalities of Making are 'Perforcement', 'Artefaction', and 'Participation' (which, again, I employ with a capital initial whenever these words are used as my own terms of art). Distinctions between the three Modalities do not have the dictionary precision that exists between the three Etymologies. The Modalities should therefore be treated not as definitions but as different perspectives on the various ways in which the rhetorical performance of making makes people think, feel, and act.

Perforcement

Perforcement describes the Modality of Making that operates to make minds up and to make others believe through persuasive arts of rhetorical performance. Taking the theatrical analogy, it may be compared to the dramatic urge or force that proceeds from the activity of directors and actors. No matter how gentle and subtle interpersonal persuasion may be, it has a forceful aspect to the extent that it influences another's will. To counter this forceful idea of rhetoric as persuasion, and of persuasion as compelling others to share your point of view, Foss and Griffin proposed the idea of 'invitational rhetoric' as a feminist alternative to what they perceived to be patriarchal force inherent in persuasive rhetoric. In a 1995 article, they proposed a notion of 'invitational rhetoric', which would operate as 'an invitation to understanding as a means to *create* a relationship'.[1] It is a brilliant notion and one that follows very closely ideas set out by James Boyd White over the preceding decade to which Foss and Griffin regrettably made no reference. In a 1985 essay, White had advocated a type of rhetoric that seeks to create community. He called it 'constitutive rhetoric'.[2] The similarity of White's idea to Foss and Griffin's subsequent notion of 'invitational rhetoric' is clear from the language White uses. Explaining his idea in the context of law, he writes that:

> [L]aw is most usefully seen not, as it usually seen by academics and philosophers, as a system of rules, but as a branch of rhetoric, and . . . the kind of

[1] Sonja K. Foss and Cindy L. Griffin, 'Beyond Persuasion: A Proposal for an Invitational Rhetoric' (1995) 62 *Communication Monographs* 2–18, 5, emphasis added.

[2] James Boyd White, 'Law as Rhetoric, Rhetoric as Law: The Arts of Cultural and Communal Life' (1985) 52(3) *The University of Chicago Law Review* 684–702, 688. See also, James Boyd White, *Heracles' Bow: Essays on the Rhetoric and Poetics of the Law* (Madison: University of Wisconsin, 1985), ix–x.

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> rhetoric of which law is a species is most usefully seen not, as rhetoric usually is either as failed science or as the ignoble art of persuasion, but as the central art by which community and culture are established, maintained, and transformed.[3]

In a 1990 restatement of this idea of legal rhetoric, White even uses the language of 'invitation' which, five years later, Foss and Griffin would place at the centre of their scheme. Highly significant for our purposes is the fact that White emphasizes the creative and performative qualities of law-court rhetoric, especially as demonstrated in a judicial opinion:

> [J]udicial texts . . . *invite* some kinds of response and preclude others; as we deal with these *invitations*, both as individuals and as a community, we define our own characters, our own minds and values, not by abstract elaboration but in performance and action. Much of the life and meaning of an opinion . . . thus lies in the activities it *invites* or makes possible for judges, for lawyers, and for citizens; in the way it seeks to constitute the citizen, the lawyer, and the judge, and the relations among them; and in the kind of discoursing community it helps to create.[4]

Professor White's idea of invitational rhetoric shows that the Perforcement inherent in persuasive rhetoric need not be negative. Instead of understanding rhetoric as a force that makes us do certain things, it can be understood as a cooperative activity of communication through which we invite each other to join in making something together. In short, rhetoric can be a communal force rather than a force of compulsion. Force, as any physicist (or *Star Wars* enthusiast) will confirm, is a morally neutral influence. Whether it turns to good or evil depends upon what we make of it. Instead of dismissing the influence of rhetorical force – what I call Perforcement as necessarily bad – we might come to see that when we are moved by the force of someone's argument or by the force of a theatrical production, the force at work is frequently one that binds us together through our shared humanity and, as James Boyd White says, can constitute a community.

Artefaction

As Perforcement describes persuasive modes of making some-*one* behave in a new way, so the second Modality of Making, which I call Artefaction, concerns making some-*thing*. Artefaction is the subject of Chapter 3, but it is useful to introduce it here by saying that the distinctive quality of Artefaction is that it makes a thing or artefact that has its own capacity to make things happen.

[3] James Boyd White, 'Law as Rhetoric, Rhetoric as Law: The Arts of Cultural and Communal Life' (1985) 52(3) *The University of Chicago Law Review* 684–702, 684.

[4] James Boyd White, *Justice as Translation: An Essay in Cultural and Legal Criticism* (Chicago: University of Chicago Press, 1990), 102, emphasis added.

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Extending the theatrical analogy, Artefaction corresponds to setting a thing on the stage – not only particular physical stuff such as set, costumes, and hand props – but also the work as a whole. Theatre, architecture, law, and rhetoric are all instances of Artefaction because the human makers in each case make something that exerts a persuasive influence independently of the makers' original act of making. A theatrical show, an architectural edifice, an enacted law, a rhetorical speech – all these things are artefacts that people make, but also things that have a capacity of their own to make people behave in new ways – often long after the original maker has died. As Winston Churchill once said of architecture: 'We shape our buildings, and afterwards our buildings shape us.'[5]

In each case – theatre, architecture, law, rhetoric – the maker's original act of making is a craft requiring training, practice, and technical ability. Our word 'technical' derives from the ancient Greek *technê*, which denoted something like 'know-how' and combines the senses of our English words 'art' and 'craft' with something more besides. The 'more' is the Making Sense. Aristotle informs us that for every *technê*, there is a product or artefact:

> [M]aking is different from doing . . . Nor is one of them a part of the other, for doing is not a form of making, nor making a form of doing. Now architectural skill, for instance, is an art, and it is also a rational quality concerned with making . . . an art is the same thing as a rational quality, concerned with making . . . All Art deals with bringing some thing into existence; and to pursue an art means to study how to bring into existence a thing which may either exist or not, and the efficient cause of which lies in the maker and not in the thing made. (*Ethics* 1140a)

We commonly refer to artworks as the 'baby' of the person who made them. The metaphor hints at the way in which Artefaction produces a new independent entity with a certain agency of its own. Dorothy L. Sayers used the child metaphor when describing literary authorship: 'While the parent is wholly responsible for calling the children into being, and can exercise a partial control over their minds and actions, he cannot but recognise the essential independence of the entity that he has procreated.'[6] In the legal context, artefacts include not only such tangible things as courtroom architecture, legal costume, and legal hand props (books, briefs, and so forth), but also such intangible things as statutes, advocates' submissions, judicial opinions, judicial decrees, and judgments.

Each of these intangible things begins as an oral utterance or collection of oral utterances combined within a performed process, only later to be made tangible in the form of a physical record (UK statutes, for example, are still

[5] Winston Churchill, 28 October 1943, House of Commons, London.

[6] Dorothy L. Sayers, *The Mind of the Maker* (London: Methuen & Co Ltd, 1941) 50.

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archived on rolls of calf-skin vellum, as they have been since the fifteenth century).[7] Legal speech artefacts that become a matter of material record illustrate well the Modality of Artefaction as I conceive it, for each is like a child which has a life independent of its human maker; a life that is lived out in its capacity to make other humans act and feel in new ways. Maksymilian Del Mar, focusing on the category of artefacts that are forms of language (including, for example, fictions and metaphors), notes likewise that they 'call upon us to participate, ie to do things with them'.[8]

Between Perforcement and Artefaction there is sometimes only the slightest shade of emphasis. How, for instance, should we describe the process of making a speech? (We can note in parenthesis how significant it is that we talk of 'making' a speech rather than 'breathing', 'uttering', or 'voicing' a speech. Talk of 'making a speech', and likewise 'delivering a speech' or 'giving a speech', suggests that a speech is an artefact formed with an almost physical sense, despite its essentially intangible nature.) In the case of a rhetorical set speech, like the Gettysburg Address, we can say that Perforcement operates through Artefaction. The speech is an artefact made through rhetorical performance which has its own power, independent of its originator, to make minds up. A great speech has the capacity to make civil peace and to make a new civil society. A play-script also exemplifies Artefaction because it is a made thing that makes things happen. Indeed, every fresh production of a play is a new artefact, as is each daily performance.

Artefaction and Things

It is important to clarify that Artefaction makes artefacts as 'things' rather than as 'objects'. Tim Ingold, expanding on the ideas of Martin Heidegger, explains the difference between a thing and an object by saying that an object 'is defined by its very "over-againstness" in relation to the setting in which it is placed', whereas with a thing '[w]e participate, as Heidegger rather enigmatically put it, in the thing'[s] thinging in a worlding world'.[9] We might say that a thing brings people into the process of Production as participants in the way that a mere object does not. The oldest surviving parliament in the world is the

[7] 'Why Is the UK Still Printing Its Laws on Vellum?' *BBC News*, 15 February 2016, www.bbc.co.uk/news/magazine-35569281. The BBC website carries a short video of vellum being made by the traditional method (www.bbc.co.uk/programmes/p00n3rdf).

[8] Maksymilian Del Mar, *Artefacts of Legal Inquiry: The Value of Imagination in Adjudication* (Oxford: Hart, 2020) 1.

[9] Tim Ingold, 'Bringing Things to Life: Creative Entanglements in a World of Materials', Realities, Working Papers #15 (University of Aberdeen, July 2010) 4; quoting M. Heidegger, 'The Thing', in *Poetry, Language, Thought*, Albert Hofstadter (trans.) (New York: Harper Colophon, 1971), 165–182, 167.

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Icelandic Althing (*Alþingi*), which in English might be translated as 'general assembly'. The Icelandic word 'thing' denotes a gathering of people. Ingold has this in mind when he writes that:

> There is of course a precedent for this view of the thing as a gathering in the ancient meaning of the word as a place where people would gather to resolve their affairs. If we think of every participant as following a particular way of life, threading a line through the world, then perhaps we could define the thing, as I have suggested elsewhere, as a 'parliament of lines'.[10]

A parliament as a thing is made by people gathered together, and the thing itself then gathers individuals and forms them into a people and into new parliaments. A parliament is an intangible instance of Artefaction made tangible in the material symbols of the parliament building.

Participation

The third of the three Modalities of Making is Participation. It describes the mode by which something is made collectively and communally in a way that strengthens social fabric. Whether we are talking about the activity of a parliament or of a play, interested parties are more likely to be persuaded when they perceive themselves to be collaborators in the Production. As Perforcement describes the persuasive activity of actors, and Artefaction describes the realization and setting up of a thing that has a capacity to influence human action, so Participation is the activity of the audience that consists of appreciation, criticism, and improvement of the Perforcement and Artefaction. In ancient Greece, legal statutes were set up on standing stones (*stelai*) in the marketplace (*agora*) of the city (*polis*).[11] This was Perforcement through Artefaction, engendering social Participation. It contributed to building state, nation, and community. However, the Artefaction that has contributed most to building communities and states is not the stone but the thing inscribed upon it: the word.

The 'Word': Artefaction and Participation in Action

Owen Barfield, one of the Oxford 'Inklings' (alongside such luminaries as J. R. R. Tolkien and C. S. Lewis), explains how the Greek concept of *logos* – the 'word' – is bound up in the making of words:

[10] Tim Ingold, 'Bringing Things to Life: Creative Entanglements in a World of Materials', Realities: Working Papers # 15 (University of Aberdeen, July 2010), 4; referring back to Tim Ingold, *Lines: A Brief History* (London: Routledge, 2007) 5.

[11] Adriaan Lanni, *Law and Justice in the Courts of Classical Athens* (Cambridge: Cambridge University Press, 2006) 37.

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> [I]t was the Stoics . . . Who gradually burdened the little Greek word 'logos' with the weight of the whole metaphysical theory of the relation between spirit and matter. 'Logos' in Greek had always meant both 'word' and the creative faculty in human beings – 'reason', as it is often translated – which expresses itself by making and using words.[12]

To put Barfield's observation in terms of Artefaction – the process by which made things make things – we can say that he has identified a circle of Artefaction in which reason makes word and word makes reason. Barfield credits the Stoics with (or blames them for) making 'logos' do so much work, but its dominance was inevitable precisely because words generate thoughts and thoughts generate words. Martin Heidegger made a similar observation when he suggested that '[m]an acts as though *he* were the shaper and master of language, while in fact *language* remains the master of man'.[13] To his lasting shame, this insight did not prompt him to renounce his membership of the Nazi Party or to denounce its concerted promotion of hate speech.

Through a dynamic cycle of Artefaction, 'word' generates 'sentence', which generates 'language', which generates 'thought', which generates 'word'. In this way, 'word' can be seen as the ultimate dynamo or generator of human expression, whether it be in speech, writing, thought, action, or any kind of performance. This generative sense is central to the biblical idea of the Divine 'Word' as primal maker. At the very start of St John's Gospel we are told that '[i]n the beginning was the Word, and the Word was with God, and the Word was God . . . Through him all things were made; without him nothing was made that has been made' (John 1: 1–3). It is because the thing we call 'word' has a generative power of Perforcement through Artefaction and Participation that the great rhetorical speeches and statements of history have been so effective in making and maintaining civil societies. The very word 'word' contains a clue to this phenomenon, for it ultimately derives from the conjectured prehistoric (Proto-Indo-European) root **were-* which, being the root of 'rhetoric', connects 'word' to the skill of social performance, and which also, as the root of the Greek *rhetra* denoting ceremonial or authoritative utterance, connects 'word' to law-making. Our idea of 'word' is therefore the ur-expression of Artefaction – for the word is something which since prehistoric times has carried a powerful capacity to make things happen. A similar prehistoric survivor is the Proto-Indo-European root **spel*, meaning 'to say aloud, recite', which survives in our ideas of magic 'spell' and Divine 'gospel'. The spoken word, whether it be in the form of a legal declaration or a mystical incantation, has always impressed us as being a thing that makes things happen beyond the limits of physical material. The capacity of the word to regenerate in defiance of physical laws of entropy and material decay

[12] Owen Barfield, *History in English Words* (1926) (London: Faber and Faber, 1954) 113.
[13] Martin Heidegger, 'Building Dwelling Thinking' in *Poetry, Language, Thought*, Albert Hofstadter (trans.) (New York: Harper Colophon Books, 1971) 146.

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demonstrates the capacity of Artefaction to make things that not only make things happen, but make things happen that really matter and things that last.

Etymologies of Making: Invention, Creation, and Production

We now return to the three Etymologies of Making. To list them in the order Invention, Creation, and Production is to list them in a sequence that is broadly, but not strictly, chronological. Invention indicates the initiation of the making process, Creation describes the development stage, and Production describes the presentation or publication of the created thing. Of course, Creation does not indicate that all Invention has ceased, and nor does Production spell the end of the Creative process, but the concepts are distinct even when they overlap in practice. Etymology informs us that Invention means 'to come in or come upon', Creation means 'to grow or increase', and Production means 'to lead forth'. Used casually, all three words are often confused within a unitary idea of 'making', but the etymology indicates that the three words once had very different meanings. In this chapter, I argue for a return to those original etymological distinctions as a way of distilling different significations from our undifferentiated talk of 'making'. Perhaps it is not a return that I'm calling for, so much as a fresh acknowledgement of etymological distinctions that still survive just below the surface of our discourse. That survival explains why, for example, one can 'produce' a rabbit from a hat, but one cannot 'invent' a rabbit or 'create' a rabbit from a hat. In examples like this, we can see that our commonplace usage still recalls the etymology with some accuracy. Another example of survival appears in the language of theatre and cinema, where the label 'producers' is still applied with etymological accuracy to the persons who bring forth a show for public consumption. The function of a theatrical producer is conceptually distinct from that of an inventor or creator, even when in practice the discharge of those distinct roles may involve some overlap of activity and personnel.

The etymological distinctions I have drawn between Invention, Creation, and Production have frequently been drowned out by habitual usage of those words. We can observe, for example, that Invention, which etymologically indicates the initial stage of the making process, is nowadays more commonly employed as a noun ('*an* invention') to indicate the item that emerges at the Production end of the making process. The etymologically accurate use of Creation to indicate the growth stage of the making process in which a thing is developed has likewise been pushed back to the Productive stage in noun form as '*a* creation', or else brought forward to be associated with the Inventive stage as if one could in a God-like manner create something from nothing. When we casually describe someone as being 'creative', we seldom make clear whether we mean that they are Inventive or that they are adept at the Creative process of developing an idea, or both. As the celebrated jurist Roscoe Pound said, '[e]xcept as an act of Omnipotence, creation does not mean the making

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of something out of nothing. Creative activity takes materials and gives them form so that they may be put to uses for which the materials unformed are adapted.'[14] When Thomas Edison said that '[g]enius is one percent inspiration and ninety-nine percent perspiration', his reference to 'inspiration' denotes Invention, and 'perspiration' refers to the effort of Creation and Production. Only God can make something from nothing through pure imagination. If we mortals have an idea appear spontaneously in our heads through genius Invention, we must sweat it out through Creation and Production. There is a passage in Act II of Anton Chekov's play *The Seagull* which demonstrates well the distinction between my three Etymologies of Making. Alluding to Invention and Creation, Nina asks, '[b]ut surely your inspiration and the creative process itself, they must give you moments of elation and pleasure?', to which the writer Trigorin replies: 'Yes. While I'm actually writing, it's enjoyable. And I like reading the proofs, but … the minute it's published, I can't stand it.'[15] His point is that Invention (what Nina calls 'inspiration') and Creation (writing and reading the proofs) bring him pleasure, but that Production (the book leaving the press) does not.

Analogues of the Etymologies of Making: Agriculture, Horticulture, and Online Culture

As we go forward, it will be helpful to think of the three Etymologies of Making in terms of an agricultural or horticultural analogy. Invention is the stage of planting a seed. Creation entails growing the seed (the word 'creation' is a correlate of Ceres, goddess of agriculture, and of growing words like 'increase' and 'procreation'). Production is the stage of taking the crop to market. The latest social media platforms may seem far removed from agrarian life, but the same distinctions between Creation and Production are still evident in the internet context. Indeed, the defining feature of Web 2.0 is that it is 'user-generated'; in other words, it is Created and Produced by those who participate in it. The Creative and Productive aspects are both evident in those mainstays of Web 2.0 that go by the name of 'social media'. According to the OED, 'social media' are 'websites and applications which enable users to *create and share* content or to participate in social networking' (emphasis added). The word 'create' is used in this definition as shorthand for Invention and Creation. The word 'share' indicates the process I call Production.

Our nature as social beings connected together within cultures means that we usually Create in order to Produce. Web 2.0 is particularly associated with users' capacity for participation through co-Creation and co-Production, for it is 'a platform whereby content and applications are no longer created and

[14] Roscoe Pound, *Interpretations of Legal History* (1923) (Cambridge, MA and London: Harvard University Press, 2013) 127.

[15] Anton Chekhov, *Seagull: A Play in Four Acts* (London: Faber and Faber, 2007) 42.

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published by individuals, but instead are continuously modified by all users in a participatory and collaborative fashion'.[16] David Gauntlett actually employed a horticultural metaphor to describe the difference between Web 1.0 and Web 2.0 when he observed that, 'in the first decade or so of the Web's existence (from the 1990s to the early to mid-2000s), websites tended to be like separate gardens', whereas 'Web 2.0 is like a collective allotment. Instead of individuals tending their own gardens, they come together to work collaboratively in a shared space.'[17] The internet has become our main social forum for the re-Creation and re-Production of ideas and experiences. Patrick Lonergan prefers the analogy of theatre: 'Every posting to a social media platform is inherently unfinished, in the sense that it is always open to being altered',[18] and this, he points out, is 'analogous to the liveness of the theatrical event'.[19] Social media postings can therefore be added alongside plays, parliaments, and political speeches in the list of things that we make through Artefaction and which, once made (and in the course of being made), have their own independent capacity to engender social bonds.

Threefold Authors: Gauntlett, Csikszentmihalyi, and Sayers

My elaboration of the three Etymologies of Making is a novel attempt to make sense of our talk of making, but I am not the first author to realize that making might be elucidated by distilling the activity into three distinguishable aspects. David Gauntlett's book *Making Is Connecting* focuses on the value of crafting to the building of community. He identifies three ways in which 'making *is* connecting':[20] first, connecting things to make new things (what I discuss in Chapter 8 as 'confection' and 'synthesis'); second, connecting to others through making; and third, connecting to social and physical environments through sharing. The last two in Gauntlett's list I treat in overlapping ways as co-Creation, Production, co-Production, and participation.

Gauntlett cites Mihaly Csikszentmihalyi, author of *Creativity*, regarding another triad that sets out three prerequisites for a finding of creativity: '[a] culture that contains symbolic rules, a person who brings novelty into the symbolic domain, and a field of experts who recognise and validate the innovation'.[21] Csikszentmihalyi is interested in the psychology of people

[16] Andreas M. Kaplan and Michael Haenlein, 'Users of the World, Unite! The Challenges and Opportunities of Social Media' (2010) 53(1) *Business Horizons* 59–68, 61.

[17] David Gauntlett, *Making Is Connecting: The Social Power of Creativity, from Craft and Knitting to Digital Everything*, 2nd ed. (Cambridge: Polity Press, 2018) 5.

[18] Patrick Lonergan, *Theatre and Social Media* (London: Palgrave Macmillan, 2015) 33.

[19] Ibid., 34.

[20] David Gauntlett, *Making Is Connecting: The Social Power of Creativity, from Craft and Knitting to Digital Everything*, 2nd ed. (Cambridge: Polity Press, 2018) 10.

[21] Mihaly Csikszentmihalyi, *Creativity: The Psychology of Discovery and Invention* (1996) (Harper Perennial Modern Classics) (New York: Harper Collins, 2013) 6.

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who make a notable cultural contribution. My concern is with making more generally, so I do not stress novelty as being especially important. There is, though, some agreement between my three Etymologies of Making and Csikszentmihalyi's three prerequisites for a finding of creativity. My idea of Invention closely correlates with his requirement of a stage that 'brings . . . into' (indeed, that's pretty much the etymological meaning of the word 'invention'), and his 'field of experts who recognise and validate the innovation' is not far from my idea of Production as bringing forth to a critical audience, although I disagree that 'validation' is necessary for the Production aspect making. In my scheme, it will suffice that there is critical reception, even if there is disapproval. The presence or absence of validation goes to the popularity and perhaps to the excellence of the product but does not affect the fact that there is a product of some sort. (Csikszentmihalyi is only concerned with high-quality products.) This leaves one element of my etymological triad unaccounted for: the growth or development aspect that I associate with Creation. For Csikszentmihalyi, 'creativity' is a catch-all term encompassing all three qualities that I prefer to keep distinct under the labels Invention, Creation, and Production.

I will discuss one more triad that has been offered to make sense of making. As well as being a celebrated crime writer, Dorothy L. Sayers was a thoughtful scholar and essayist. In her book *The Mind of the Maker*, she analogized human making processes to the three persons of the Christian Holy Trinity – Father, Son, and Holy Spirit – arguing that these three Divine persons 'embody a very exact description of the human mind while engaged in an act of creative imagination'.[22] She stressed that she was not seeking to advance a Christian apologetic, saying: 'Whether this goes to prove that man is made in the image of God, or merely that God has been made in the image of man is an argument that I shall not pursue.'[23] Sayers uses the process of writing a book to illustrate her trinitarian aspects of making. The first aspect is 'the Book as Thought', being 'the Idea of the book existing in the writer's mind'.[24] This she associates with the Father aspect in the Holy Trinity. In my scheme, it corresponds most closely to Invention, which is the planting of the seed. Her second aspect is 'the Book as Written' or worked up. This she associates with the person of the Son in the Holy Trinity – God in the physical human form of Jesus Christ – which she describes as 'the Energy or Word incarnate, the express image of the Idea'.[25] To the extent that incarnation implies physical development from a seed of Divine inspiration, there is some correspondence between this and my second Etymology of Making: Creation. Sayers' third aspect, 'the Book as Read – the Power of its effect upon and in the responsive mind',[26] is closely comparable to my third Etymology: Production. Sayers' study differs from my project in much of its detail, and

[22] Dorothy L. Sayers, *The Mind of the Maker* (London: Methuen & Co Ltd, 1941) x. [23] Ibid.
[24] Ibid., 89. [25] Ibid., 90. [26] Ibid., 91.

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our respective threefold analyses are not folded in the same places, but her approach offers support in principle for the usefulness of seeking to distinguish different senses of making from one another. It also suggests that ancient human wisdom in the form of creation myths might provide fertile ground for exploring cultural notions of making. We will return to Sayers' stimulating study, but for now I enlarge a little more upon each of my three Etymologies of Making as they relate to creation myth. In doing so, I should stress that 'myth' need not imply, any more than 'made up', that one should not put faith in the story.

Invention, Creation, and the Divine

Starting with Invention, we can note that in the case of God or gods, the Divine initiative or 'spark' is sometimes called an act of creation, whereas etymologically it would be more accurate to regard it as an act of Invention. It is the first act of 'coming in' (Latin: *in-venire*). It is the seed that has not yet grown; the spark that has not yet become a fire. In the biblical account, the Divine utterance 'let there be light' is the first sound to break silence, the first light to break darkness, the first act of will to break inertia, and the first law to make order out of chaos. Etymologically speaking, Creation more properly describes the ensuing process of growth. The progressive eras or 'days' by which the biblical idea of creation and the Darwinian idea of evolution describe the development of life on earth are both properly called Creation because they involve an increase or growth from the original seed or spark.

In the biblical account, the seed of Invention is manifest in Divine intervention; in the Darwinian account it is present as genetic mutation. That the Creation stage is characterized by increase, even by horticultural growth, is emphasized in the English translation of the Old Testament account: 'This is the account of the heavens and the earth when they were created, when the Lord God made the earth and the heavens. Now no shrub had yet appeared on the earth and no plant had yet sprung up' (Genesis 2:4–5). In the beginning, the seed of Invention had not yet begun to grow. What followed was stage-by-stage growth towards a perfect garden, which is Creation properly so-called. Later in the biblical account, when the earth is renewed and reinvented by flood, the start of the post-diluvian era is also marked by a turn to Creation in the etymological sense of increase. The first Divine command to humans when they came out of Noah's ark was to '[b]ring out every kind of living creature that is with you . . . so they can multiply on the earth and be fruitful and increase in number on it' (Genesis 8:16–17). Likewise, the second Divine command post-flood called upon humans to '[b]e fruitful and increase in number and fill the earth' (Genesis 9:1). Accordingly, the first Divine command to the cosmic chaos was 'let there be light' – a command of Invention; and the first Divine command to human creatures after the flood was that they should multiply – a command of Creation. We can see, then, that since earliest

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times, the human mythos of making has perceived a fundamental distinction between initiation and growth – between Invention and Creation.

Entropy and the Un-making Cosmos

While we are thinking on a cosmic scale, this is probably the place to offer a small but heavy thought that strikes me in the literally Inventive ('in-coming') way that a meteor might. The thought is that the entire dynamic of the universe is all directed, on the grandest scale, at un-making everything. Whatever is made by human hands will eventually be unmade by the hand of time. This is because in relation to any given object in any given context, natural environmental influences are more likely to produce dissolution and disorder than structure and order. The chance that heat in the Sahara will melt sand into glass and produce a mirror is not nearly so great as the chance that a human-made mirror placed in the Sahara will turn to dust. Or, to borrow a well-trodden metaphor illustrative of the same point, the chance that ocean waves will wash away a sandcastle is much greater than the chance that waves will form a sandcastle.

The fact that the direction of the universe is all one way in the direction of decay is said to be a function of the physical law of entropy, which states that energy in a closed system will always tend to equilibrium. In short, energy which goes into making a structure must eventually come out. Gravity isn't bound to travel in one direction through time – a ball thrown up will fall down, and a video of that sequence looks the same and looks sensible whether played forward or in reverse. Energy, on the other hand, is bound to travel in one direction through time – a video of a ball bouncing with ever-decreasing kinetic energy until it comes to a standstill only makes sense when played forward through time. According to the law of entropy, when other factors are equal the ball will give its energy to its environment rather than acquire energy from its environment. Even stone castles collapse over time for essentially the same reason – the energy that keeps their parts bonded into a structure eventually ebbs away. Sir Arthur Stanley Eddington, who coined the concept of 'time's arrow', explained it this way:

> Let us draw an arrow arbitrarily. If as we follow the arrow we find more and more of the random element in the state of the world, then the arrow is pointing towards the future; if the random element decreases the arrow points towards the past. That is the only distinction known to physics.[27]

Eddington observed that time's arrow is a universal progress which human beings are innately conscious of. If we saw a bouncy ball subject to no apparent external influence self-generate an increasingly expansive motion

[27] Sir Arthur Eddington, *The Nature of the Physical World* (1928) (Cambridge: Cambridge University Press, 1948) 35.

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from a position of standstill, we would appreciate that something was fundamentally wrong. Eddington's decision to base his idea of entropy on thermodynamically closed systems (systems that exchange heat but not matter, e.g. a domestic central heating system) is not without its critics, but the general observation that structures tend to decay, and that energy tends to dissipate, holds good – and certainly accords with human perception of natural phenomena. There is a sense, then (and perhaps a subconsciously felt sense), in which a human maker is pushing against the death of the universe in every small act of making by which they put energy into making things and by which they impose structure on stuff and order on chaos. On this view, making is an act of life performed in resistance to death. The human maker is also pushing against the hand of time in every act by which they maintain the order and structure of the world through the work of their hands. It is not just a sense of nostalgia that gives meaning to every act of making and maintenance performed through a traditional craft, but the sense that in a small way our hands are holding back universal death and the tug of time. James Boyd White appreciated the same dynamic at work in the creative activity of writing when he observed that '[w]riting is a material art that creates a new and immaterial dimension of experience, a field of life, running across time and space, resisting the natural process of decay'.[28]

The Invention of Truth

When the word 'invention' was first invented, it had a very different meaning to the one it bears today. The first entry under 'invention' in the OED is the archaic or obsolete use of the word to describe the 'action of coming upon or finding; the action of finding out; discovery'. The OED cites early examples, including Thomas Starkey writing of the 'inventyon of the truth, & equyte',[29] and Richard Hooker writing of the 'judiciall method which serveth best for invention of truth'.[30] If someone spoke today about the invention of truth, we would accuse them of propagating lies, but the point is that 'invention' originally concerned the bringing in or discovery of an existing thing, rather than its modern sense of making a novel thing. A compromise between the old and new meanings is to appreciate 'invention' as the bringing in of existing ingredients to make a new thing. This is the sense of *inventio* that has been employed since the classical era to describe the bringing in of elements – topics, syllogisms, and so forth – to be used in the composition of a rhetorical

[28] James Boyd White, *Living Speech: Resisting the Empire of Force* (Princeton: Princeton University Press, 2006), 124.

[29] *A Dialogue between Pole and Lupset* (1529–1532, T. F. Mayer ed., Camden, 4th series, Vol. 37. London: Royal Historical Society, 1989) 78.

[30] *Of the Lawes of Ecclesiasticall Politie* (various editions, 1594 onwards) Book II, 97.

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argument. The old use of invention to describe the synthetic gathering together of elements or ingredients for a particular purpose is not very different from the modern sense of bringing items together in an 'inventory'.

As early as 1526, some authors were employing invention in the modern sense of new things made imaginatively rather than the old sense of bringing together existing things synthetically. Thus the monk William Bonde contrasted invention to synthesis when he described his *Pylgrimage of Perfection* (a collection of materials to guide the monastic life) as a book of 'thynges, which be nat [not] of myne inuencion: but with great labour gathered'.[31] By the late seventeenth century, which brought with it the age of Enlightenment and a new wave of suspicion of rhetorical arts, one even finds instances of invention being denounced as a fictional thing *opposed to* truth. Geologist John Woodward used the word in this sense when he contrasted 'an appearance of Figment and Invention' to the enlightenment values of 'Truth and Reality'.[32] This example shows that the verb invention had by then decayed entirely from the original sense of bringing in existing truths to a new sense of making falsehoods. For our purposes, 'Invention' describes the activity by which the seed of a made thing is first planted, come upon, or inspired.

The Science of Making Discoveries

Having said that Invention can initiate making through discovery, it is worth pausing to stress that the sometimes-supposed distinction between discovery and making is a dubious one. After all, most discoveries are 'made', and often by means of imaginative processes; scientific discovery being one example. The very word 'scientific' derives from the Latin for 'knowledge-making' or 'knowledge-doing' (combining the Latin *scientia* 'knowledge' with a form of *facere* 'to make, to do'). The Greek equivalent of the Latin 'scientific' is *epistimonikós* (*επιστημονικός*), which can likewise be translated as 'knowledge-producing'. The philosopher Gilles Deleuze deflates the fantasy that science is discovery divorced from making when he observes that scientists 'do not discover – discovery exists but that is not how we describe scientific activity as such – they create as much as an artist. It is not complicated, a scientist is someone who invents or creates functions.'[33]

[31] *The Pylgrimage of Perfection* (London: Richard Pynson, 1526) Part I, Pref. sig. Aiiv.

[32] John Woodward, *An Essay towards a Natural History of the Earth* (1695) (London: TW for Richard Wilkin, 1702). In the passage he is discussing people's retrospective on the biblical story of the Flood, a deluge whose 'prime Errand', he observes, 'was to *re-form* and *new-mold* the Earth' (92).

[33] Gilles Deleuze, *Two Regimes of Madness: Texts and Interviews 1975–1995*, David Lapoujade (ed.), Ames Hodges and Mike Taormina (trans.) (2001) (New York: Semiotext(e) 2007) 317–329.

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Darwinism

It might be said that no scientific theory has had more influence upon the popular imagination than Darwin's theory of evolution. Its account of natural selection addresses the mystery of how life in all its varieties was made. The chief protagonist in the story is the accident of genetic mutation and the setting is the accident of environmental context. It is a tale that has grown in the telling to become an entire creation myth to rival that of any religion. The counterargument in favour of a creator God was famously expressed by Christian apologist William Paley by means of his analogy of the watchmaker. He reasoned that if a finely instrumented watch were discovered on a heath, the finder would necessarily infer the existence of a watchmaker.[34] The analogy asserts that it is necessary to infer the existence of a divine maker to make sense of the intricate complexity of the natural world. Richard Dawkins rejects this. In his view, the biological system of evolution through natural selection produces all the complexity of the natural world automatically without any prior image having to exist in any mind's eye. There is no image. There is no eye. There is no mind. For Dawkins, the notional watchmaker is blind, and the complexity of natural forms (and of watches, for that matter) does not necessitate the existence of a divine design, only the existence of a system of chance.[35] Responses to Dawkins have pointed out that his explanation for the puzzling discovery of a watch simply replaces that conundrum with the fresh challenge of understanding how his conjectured system of chance was made, or, as Physicist Stephen M. Barr puts it, of understanding the nature of the 'blind "watchmaker maker" maker'.[36]

Writing in Oxford in 1957, around the time that elsewhere in Oxfordshire a teenage Dawkins was deciding to ditch Divinity for Darwinism, Owen Barfield criticized the Darwinian method of making sense of the world:

> By a hypothesis, then, these earthly appearances must be saved; and saved they were by the hypothesis of – chance variation. Now the concept of chance is precisely what a hypothesis is devised to save us from. Chance, in fact = no hypothesis.[37]

Dawkins may doubt that there is a divine organizing mind, but he cannot deny that Dawkins has something in mind, and that Darwin did too. Dawkins and Darwin are conscious, constructing entities, and their scientific theories of evolution and natural selection were not discovered, they were made. What we

[34] William Paley, *Natural Theology* (London: R. Faulder, 1802) chapter 1.

[35] Richard Dawkins, *The Blind Watchmaker: Why the Evidence of Evolution Reveals a Universe without Design* (New York: Norton & Company, 1986).

[36] Stephen M. Barr, *Modern Physics and Ancient Faith* (Notre Dame, IN: Notre Dame University Press, 2003) 111.

[37] Owen Barfield, *Saving the Appearances: A Study in Idolatry* (first published Faber and Faber 1957) (Oxford: Barfield Press, 2011) 68.

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call scientific 'invention' depends upon imaginative making by means of technical craft. It is pure pretence to say that scientific facts are discovered independent of human agency, for making a discovery is itself a mode of making that depends upon technical skills without which the discovered thing can be called neither 'discovered' nor 'thing'. The role of human craft in 'making a discovery' is central both to science and to the fine arts, hence the statement popularly attributed to Michelangelo: 'The sculpture is already complete within the marble block, before I start my work. It is already there, I just have to chisel away the superfluous material.' Composer Antony Pitts says something similar about writing a new piece of music: 'I sometimes feel sure that I'm seeing or feeling it rather than hearing it. It – whatever it is – is amodal or multimodal, an Ur-expression of some deeper confluence of ideas or tangling of neurons.'[38] He observes elsewhere that 'the meta-work is already there in embryo, even before the first performance'.[39] In other words, artistic Invention – etymologically an 'in-coming' – can also be seen as an outpouring; a discovery of something within us. Composers are composing themselves.

Production

Etymologically the word 'production' means 'to lead forth' (*pro-* 'forward'; -*duction* 'leading'), and one of the earliest recorded uses of the word (in Latin and in medieval French) was to describe the act of bringing forward evidence in a law court. If a created thing remains the secret of its creator, there is no Production. Production describes the stage of making whereby a thing is made complete through the participation of other minds than that of the initiator or original creator of the thing. By this definition, agricultural 'produce' is so called not because we make it grow, but because we make it public. The word 'try' in the phrase 'try my produce' is a clue to a very important feature of Production, which is that produce is not properly so-called if it is merely shown to a passive public. Like evidence produced to a court of law, produce deserves that name only when it is brought forth in a manner that opens it up to critical scrutiny through trial. Accordingly, Production means not only 'made public' but also 'public made'. A thing is made in the sense of being Produced when members of the public can engage with it, and thereby participate as co-Producers of the thing.

The idea that scrutiny and critique by a public audience might improve my product collaboratively through co-Production is a commonplace of classical wisdom across the globe. It is neatly expressed, for instance, in the classical

[38] Antony Pitts, 'Towards an Outline . . . ', in Daniel Leech-Wilkinson and Helen M. Prior (eds), *Music and Shape* (Studies in Musical Performance as Creative Practice) (Oxford: Oxford University Press, 2018), chapter 30.

[39] Antony Pitts, correspondence with the author (September 2020).

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Chinese idiom 'the other mountain's stone can polish jade'.[40] Dorothy L. Sayers wrote in the spirit of that idiom when she celebrated the potential for creative works to become fulfilled through their reception by others: 'once the Idea has entered into other minds, it will tend to reincarnate itself there with ever-increasing Energy and ever-increasing Power'.[41] My definition of Production as making through publication also resonates with Percy Lubbock's opinion that 'the art of fiction does not begin until the novelist thinks of his story as a matter to be shown'.[42] Lubbock went too far, though, for he seems to suggest that there can be no creative writing without publication. The reality is that creative writing can be done by a writer solely as a private or personal exercise in literary expression, as Dorothy L. Sayers observes:

> A writer may be heard to say: 'My book is finished – I have only to write it'; or even, 'My book is written – I have only to put it on paper'. The creative act, that is, does not depend for its fulfilment upon its manifestation in a material creation.[43]

What she says here is consistent with the Etymologies of Making as I define them. Making in the sense of Creation does not require that a product be brought forth to public scrutiny but making in the sense of Production does.

Participation and Co-Production

Theatrical Production involves essentially the same elements as agricultural Production. Whereas agricultural Production entails the presentation of produce to a critical public, a theatrical Production entails putting on a show to a critical audience. The theatre theorist and practitioner Jerzy Grotowski once asserted that '[a]t least one spectator is needed to make a performance',[44] and educationalist Dorothy Heathcote wrote in a similar vein that 'the creative urge in drama cannot be completed without an audience to participate in what is at once its birth and its destruction'.[45] Csikszentmihalyi made a related point when he observed that 'creative ideas vanish unless there is a receptive

[40] Alvin Hoi-Chun Hung, '"Stones from Another Mountain": An Analysis of the Cinematic Significance of Hong Kong's Storm Films in China's Anticorruption Campaign' (2021) 15:1 *Law and Humanities* 84–105.
[41] Dorothy L. Sayers, *The Mind of the Maker* (London: Methuen & Co Ltd, 1941) 88.
[42] Percy Lubbock, *The Craft of Fiction* (London: Jonathan Cape, 1921) 62.
[43] Dorothy L. Sayers, *The Mind of the Maker* (London: Methuen & Co Ltd, 1941) 31–32.
[44] Jerzy Grotowski, *Towards a Poor Theatre* (1968) (New York: Routledge, 2002) 32.
[45] 'Drama as Challenge', in Liz Johnson and Cecily O'Neill (eds), *Dorothy Heathcote: Collected Writings on Education and Drama* (Evanston, IL: Northwestern University Press, 1984) 81. See also, Patti Peete Gillespie, 'The Performing Audience' (1981) 46(2) *The Southern Journal of Communication* 124–138, arguing that 'an audience is necessary to the art of the theatre and that the necessary audience is real rather than abstract' because (among other factors) 'audiences are too diverse to be usefully described by an abstraction' (124).

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audience to record and implement them'.[46] The commonplace observation that critical scrutiny can 'make or break' a theatrical production actually means to say that a positive critical reception *makes the show succeed*, whereas a negative critical reception *makes the show fail*. All criticism – positive or negative – participates in making the thing in co-Productive mode. When Elizabeth Burns attributes to the theatrical audience 'the power of making or breaking a play', her point is that the audience is 'ultimately responsible for sustaining the performance'.[47] There is more to sustaining a performance than money, but it is hard to ignore the fact that one important sense in which the public can make or break a play is the financial sense, which is why we hear economists talk of popularity 'producing' demand and of demand 'creating' a market.[48]

If we want to persuade an audience to accept something, it is not ideal to present the thing as a *fait accompli*. An audience is more likely to approve something if they feel that they've had a hand in improving it through active participation; that is, if they feel that the thing is the joint product of the collaborative activity of initiator and audience. This is one reason why metaphor is such an effective rhetorical figure. Metaphor shifts some of the imaginative work onto the reader or audience in a way that engages them in judgment. An effective metaphor holds our imagination because through it the initiator presents a puzzle that must be scrutinized and judged by the receiver if it is to reveal its sense. Maksymilian Del Mar argues that linguistic artefacts, among which he includes metaphors, 'call upon us to participate ... eg through being incomplete, under-specified, or discontinuous'.[49] He suggests that participation in this context can be considered a mode of 'playing', and even of 'making'.[50] I agree that the co-Productive activity of the receiver completes what would otherwise be incomplete. If Auden's line, 'Law say the gardeners is the sun', were empirically true, an appearance in court would be more painful than it already is, and much more brief. The reason the metaphor works is because we know that it cannot be true physically and this compels us to make figurative sense of the picture. The puzzle, or playfulness, of the image invites us to join in. Aristotle had the pleasure of audience participation in mind when he praised the operation of metaphor in his *Rhetoric*. He wrote that, by virtue of *enargeia*, metaphor has the capacity to

[46] Mihaly Csikszentmihalyi, *Creativity: The Psychology of Discovery and Invention* (1996) (Harper Perennial Modern Classics) (New York: Harper Collins, 2013) 6.

[47] Elizabeth Burns, *Theatricality: A Study in Convention in the Theatre and Social Life* (London: Longman, 1972) 185.

[48] We are told, for instance, that '[w]hen individuals seek to buy a product to satisfy a need, they create *demand*' and that '[p]roducts that are harmful to society, but are still demanded by consumers create a market characterized by unwholesome demand'. Karl Moore and Niketh Pareek, *Marketing the Basics* (Abingdon: Routledge, 2006) 11, 15.

[49] Maksymilian Del Mar, *Artefacts of Legal Inquiry: The Value of Imagination in Adjudication* (Oxford: Hart, 2020) 102.

[50] Ibid., 120.

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enliven an idea for an audience by performing or producing it as a solid image presented before their eyes (*pro ommaton poiein*).[51] Richard Moran has written in relation to this passage that the aim of bringing a metaphorical image before the eyes of an audience is 'to get one's audience to *do* various things, to imagine in a lively fashion that involves much associating, connecting, and emotional responding'.[52] Since the Greek verb *poiein* imports 'making' as well as 'doing', we can add that the aim is equally 'to get one's audience to *make* various things' through co-Productive engagement with the originator of the metaphor. This sense emerges clearly in Moran's further elaboration of the same passage from the *Rhetoric*:

> [I]maginative activity on the part of the audience contributes directly to the rhetorician's aim of persuasiveness ... the audience ... is engaged in the productive labor of constructing and exploring various useful associative connections within the image. But the crucial advantage here is not simply the surplus value obtained by having others work for you, but rather the miraculous fact that shifting the imaginative labor onto the audience makes the ideas thereby produced infinitely more valuable rhetorically than they would be as products of the explicit assertions of the speaker.[53]

The 'miracle' that makes a metaphor live in a reader's mind is of the same species as the marvel that makes a book live in the mind of a reader and makes a play live in the actors and audience. It is the miracle of co-Production. Like the wonder of human procreation, it is the miracle of making something together.

[51] 1411b. See Peter A. O'Connell, 'Enargeia, Persuasion, and the Vividness Effect in Athenian Forensic Oratory' (2017) 20(3) *Advances in the History of Rhetoric* 225–251.

[52] Richard Moran, 'Artifice and Persuasion: The Work of Metaphor in the *Rhetoric*', in Richard Moran, *The Philosophical Imagination: Selected Essays* (Oxford: Oxford University Press, 2017) 49–60, 59, emphasis in original.

[53] Ibid.

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