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Constitutive Causality: Imagined Spaces and Political Practices

Richard Ned Lebow

I explore alternate meanings of causation and the generic ways in which constitution can have causal consequences. I address the question of constitutive causality in the context of the debate about the rise of the territorial state. I evaluate claims linking its emergence and success to the prior development of linear perspective. To do this, I compare the spatial revolution that took place in the Renaissance with the one that began in the 19th century.

Keywords: causation, constitution, territorial state

Constructivists privilege constitution in preference over causation. Some, like Alexander Wendt, conceive of these concepts as oppositional or competitive. Other constructivists insist they are related because, pace Onuf and Kratochwil, they believe constitution to have causal implications. This relationship has not so much been documented as asserted. It is incumbent upon constructivists to develop a non-positivist understanding of causation and use it to spell out the ways in which constitution can have causal consequences. Towards this end, I develop a typology of constitutive causation that describes a continuum with strong forms of causation at one end, to weak at the other. I describe different ways in which constitution has causal consequences and the conditions that can move a constitutive frame in either direction along the continuum.

I attempt to demonstrate the utility of this formulation in the context of the debate about the rise of the territorial state. I interrogate John Ruggie’s claim that linear perspective was an essential condition for the emergence

and success of the state.\textsuperscript{3} Towards this end, I conduct a comparative historical analysis of the relationship between visual frames and politics in the Renaissance and early modern Europe and the 19th and 20th centuries. Both eras witnessed revolutions in our conceptions of space but only the former had a major impact on political conceptions and practices. What accounts for this difference? The answer, I suggest, may be the emergence of the individual identity in the Renaissance and early modern Europe. This philosophical and political project found expression in the arts, literature and politics. Developments in these domains were mutually reinforcing and helped kings to imagine and consolidate the territorial state. In the modern era, the spatial revolution in mathematics and the sciences has been largely separate and unrelated to the spatial revolution in the arts. Neither has had a significant impact on political conceptions and practice, and may not, in the absence of another fundamental shift in identity. Such a reformulation may be in its early stages and could conceivably draw on contemporary conceptions of space as important political resources.

**Constitutive Causation**

Most of the action in constructivism is about the co-constitution of people and their societies.\textsuperscript{4} Constitution addresses the question of who becomes actors, how they are recognised as such and how they must behave to sustain their identities and status. Identities and constitutive rules are related. The latter, according to John Ruggie, ‘define the set of practices that make up any particular consciously organized social activity’.\textsuperscript{5} Nicholas Onuf envisages practices as constitutive and regulative. They guide behaviour but also help shape the identities of actors who follow them.\textsuperscript{6} Constitution can be understood to include core beliefs, not only practices, that are associated with identity. For over a millennium, Western civilisation was synonymous with Christianity in the eyes of those who considered themselves ‘Europeans’ or ‘Westerners’. Christianity, more than most religions (especially Islam and Judaism), is defined in terms of beliefs than


\textsuperscript{6} Onuf, \textit{World of our Making}, 36, 51–2.
practices. Visual and musical frames of reference also have constitutive properties and specific visual and musical frames can be associated with and help create or sustain particular identities. Constitution is a critical but still loosely defined concept among constructivists.

How should we think about the relationship between constitution and cause? Are we talking about two completely different processes or are they somehow related? Constructivists disagree among themselves, and this disagreement in part reflects disagreement about the nature and scope of constitution. Alexander Wendt insists that causation and constitution exist in parallel but separate universes. Causal logic concerns the why and how and aspires to explain physical and social phenomena. Constitution is concerned with how something is possible and what it is. It attempts ‘to account for the properties of things by reference to the structures in which they exist’. Constitutive arguments must be evaluated in terms of their conceptual or logical necessity, but never causally.  

Other constructivists acknowledge differences between causation and constitution but insist that they are related, even overlapping, concepts because they understand constitution to have causal implications. Rogers Smith uses the term ‘generative causality’ to describe the role of narratives of identity. John Ruggie prefers ‘constitutive causality’ – I follow his lead – which occurs whenever ‘antecedent conditions, events, or actions are “significant” in producing or influencing an effect, result, or consequence’. Audie Klotz and Cecelia Lynch describe ‘conditional causality’, which, in their view, permits ‘context-dependent generalizations about behaviour and language’. Drawing on Weber and McAdam, Tarrow and Tilly, Patrick Jackson makes the case for ‘adequate causality’. It entails ‘the contingent coming-together of processes and patterns of social action in such a way as to generate outcomes’. Establishing causation of this kind involves the two-step process of identifying a set of likely causal mechanisms – which may be narratives of identity, metaphors and other rhetorical commonplaces – and careful empirical tracing of how

they come together to shape the behaviour of agents in particular cases. This is rather similar to the understanding of causation that I advance in *Forbidden Fruit: Counterfactuals and International Relations*, with the exception that I emphasise the highly contingent nature of the confluences that privilege certain identities or frames of reference over others.13

Constitutive causality is no silver bullet. But it can surmount some of the problems inherent in neopositivist understandings of causation. It makes no claims about any of its hypothesised causes being necessary and sufficient. If offers no ‘X’ that causes a ‘Y’. In its strongest form it theorises a necessary but insufficient condition for an outcome. Weaker forms of causal claims, described below, offer ‘possible’ and insufficient conditions. Both formulations grow out of attempts to discover and work through the behavioural consequences of conceptual frameworks actors use to define themselves, categorise other actors and understand the world more generally. Constitutive causality directs our attention not only to these underlying cognitive and visual frameworks, but also to the social processes and interactions, confluences, accidents and agency that mediate between them and outcomes that interest us. Constitutive causality seeks to develop layered accounts of human behaviour in lieu of law-like statements. It rejects the latter, not only because of all the philosophical and methodological problems associated with such a project, but out of recognition that outcomes – and their meanings – almost always depend on idiosyncratic features of context.

In contrast to the narrow understanding of science found in *Designing Social Inquiry*, constitutive causality, like more sophisticated understandings of science, also directs our attention to the mechanisms by which causes have effects. The nature of these mechanisms will vary depending on the nature of the frame of reference and the level at which it operates. At the deepest levels, causation is cognitive and works by opening and directing thought to some pathways while closing or foreclosing others. It may leave no overt traces and we may need to devise strategies for detecting its operation. As we move from cognitive frameworks to social processes and human interactions a wide range of mechanisms become applicable and visible. At each step of the way from cognitive pathway to political outcome we need to specify an appropriate mechanism and make the case for why it is relevant in this instance.

Constitutive causality offers a more comprehensive account of cause than the Humean conception of causation so central to neopositivism. The statement ‘X’ produces ‘Y’ operates at the most immediate level of causation. Even when ‘X’ appears to vary with ‘Y’, it can almost always be reconceived as its own ‘Y’ and attributed to another ‘X’ or ‘Xs’ that are temporally prior to and operate perhaps at a deeper level of causation.

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Such an approach heightens our sensitivity to causal chains and provides an analytical framework for studying them. It also draws out attention to causation across levels and social domains. Constitutive causality has the potential to lead us back step-by-step to ‘deep’ causes of political outcomes (i.e., identities and other frames of reference), and forward again in an ever-widening, more comprehensive search for connections and causes. Our map of causes will, of course, never be complete, nor is this necessary to develop a reasonable understanding of the behaviour in question. This model of causation seeks to expand, not limit, our horizons, which is just the opposite of Humean causation’s effort to narrow our search for causes to a relationship that can be expressed in a linear equation.

It is best to picture the relationship between constitution and causation as a continuum. One high end is anchored by frames of reference (visual or conceptual) that make some behaviour all but necessary and some almost inconceivable. In the middle of the continuum would be frames that make some behaviour more likely and other actions correspondingly less so. At the lower end of the continuum we encounter identities and frames of reference that have little effect on the behaviour of actors, but which can be used by them to help sell or justify particular behaviour or policies.

Religious identities often constitute strong identities at the high end of the continuum. Male Sikhs must grow beards and wear turbans. For Hindus, Muslims and Orthodox Jews eating pork is taboo. Many members of these faiths cannot imagine themselves ingesting pork although they recognise it is physically possible. Linear perspective is an example of a cognitive frame of reference with strong causal consequences. It has socialised Westerners to understand two-dimensional representations as capturing a third dimension by reference to a single vanishing point. Confronted with woodcuts by Escher that violate these expectations (see Figure 1) we become confused and disoriented and struggle to remake the image in our minds so that it is consistent with our understanding of three-dimensional space. Such a transformation is, of course, impossible, compelling us to give up the quest or orient ourselves on a micro-scale by inserting ourselves into one of the many possible spatial alignments and limiting our gaze to that part of the woodcut that is consistent with it. If the same image could be shown to a Medieval European, it might not evoke the same disorientation or cognitive-visual responses. Pre-modern visual conventions allowed objects to be depicted simultaneously from multiple perspectives with individuals sized as a function of their relative importance (see Figure 2). The viewer was encouraged to develop a more holistic appreciation of them. What is visually imaginable and unproblematic for one culture may be all but unimaginable – creative artists like Escher aside – or deeply problematic for another.

Strong constitutive causality works indirectly, at considerable remove. Cognitive frameworks shape the way in which people formulate goals and choose means of achieving them. It also influences the kind of information
Figure 1: M. C. Escher, *Relativity*, woodcut, 1953

Figure 2: Giotto, *The Expulsion of the Demons from Arezzo*, 1295–1300, fresco in St Francis, Upper Church, Assisi, Italy
people pay attention to and how they interpret it. To establish such causal claims we must work back from behaviour to understandings and goals and show how they in turn were the product of particular identities or cognitive frames. Ideally, we should demonstrate that the behaviour in question would be inconsistent with other identities and frames (or only consistent with those we know to be alien to relevant actors). It is easier to work backwards than forwards and this has the additional advantage of bringing to our attention behaviours that are both consistent and inconsistent with particular identities and cognitive frames.

Frames that make some behaviour more likely and other actions correspondingly less so are found in the middle range of the continuum. Many social and political identities would be arrayed along this segment of the continuum. Self-identification as an aristocrat and officer in 1914 – the two went together in central Europe – made it extremely likely that foreign policy questions would be framed in terms of honour, and that generals and policymakers who did this would seek ‘satisfaction’, even at the expense of security and material interests. Alternative responses – turning the other cheek, bargaining and compromise – that privilege survival or wealth were considered dishonourable and shameful. Honour, like all concepts, is elastic and underwent a substantial evolution in Western Europe in the 19th century. Aristocrats and officers in France and Britain had more leeway to make accommodations with the modern world and could act more cautiously when confronted with personal and political challenges, or more decisively when presented with economic opportunities, without being dishonoured in the eyes of their peers. Their responses to political and economic questions of a personal or national nature were accordingly more idiosyncratic, context dependent and much less predictable.

Weaker forms of constitutive causality operate in the same way as stronger forms. They are associated with frames of reference that are less determining, often making it more difficult to make the case for any causal claim because the behaviour in question is consistent with multiple identities or frames. I suspect that this is the most common situation, as actors almost always have multiple frames of reference, just as they have multiple identities. Accident, confluence and other features of context may determine which of them come to the fore, making it essential to situate any inquiry in a broader social and causal context.

Finally, at the low end of the continuum we encounter identities and frames of reference that are used as rhetorical devices to sell or justify behaviour or policies. Patrick Jackson offers ‘Western civilization’ as such a construct and shows how it was used by a trans-atlantic alliance

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of Germans and Americans to justify certain policies towards postwar Germany. Once entrenched, it made other courses of action increasingly less appealing and even unacceptable.\textsuperscript{15} Sovereignty is another example that has been extensively studied. It is a concept with diverse and even murky origins, which was first popularised in the 16th century. At that time, more importance was placed on its domestic than international implications. Nineteenth- and 20th-century jurists and historians, many of them Germans influenced by Kant and Hegel (e.g., Heeren, Clausewitz, Ranke, Treitschke), developed a narrative about sovereignty that legitimised the accumulation of power of central governments and portrayed the state as the sole focus of a people's economic, political and social life. The ideology of sovereignty neatly divided actors from one another, and made the binary of ‘us’ and ‘others’ appear an inevitable, if not progressive, development, as did rule-based warfare among states.\textsuperscript{16}

These examples suggest that the relationship between constitution and causation is reciprocal and fluid. Identities, metaphors, frames of reference, concepts and analogies may start life as conscious inventions of actors used to justify and mobilise support for their goals. Even if they have a prior existence, they may be used instrumentally by actors. Success, as in the cases of sovereignty or linear perspective, is likely to increase the availability and attractiveness of the identity or frame, enhancing its reach and power. Over the course of time, it may progress from a consciously invoked and controversial frame of reference – as say ‘The War on Terror’ was in the Bush administration – to something accepted as natural; frames of reference or projects in terms of which actors define or express themselves. At this middle range of the continuum it enables certain kinds of behaviour and makes other actions more difficult to enact or mobilise support for. Over time, as with linear perspective or some religious identities, frames of reference can become so entrenched that it becomes increasingly difficult, if not impossible, for many actors to imagine alternatives, or, if they can, to put themselves inside of them. Interestingly, instrumental appeals may work best at the middle range of the continuum, where frames have become naturalised but are still readily conceptualised. Much of politics consists of efforts to portray projects,
policies and actors as instantiating or inimical to these frames of reference. One way to evaluate where along the continuum a particular frame is, consists of studying how actors couch their appeals. Do they attempt to sell the frames (low end), appeal to them (middle end) or make no reference to them but nevertheless act and speak in terms of them (high end)?

Early recognition of the causal implications of visual frames is to be found in the exploration of linear perspective conducted by Erwin Panofsky in the 1920s. Drawing on the work of his Warburg Library colleague Ernst Cassirer on the autonomy of symbols and Alois Riegl’s concept of *Weltanschauungs philosophie*, he suggested that each historical epoch of Western civilisation had its own ‘perspective’ that was consonant with and helped to negotiate a particular *Weltanschauung*. Linear perspective should not be regarded as a scientific advance over medieval representations of space; it came no closer than earlier perspectives in capturing reality, but did express more effectively the world-view of Renaissance Italians. Panofsky believed in the organic integrity of culture but made no attempt to describe the particular cultural configurations that gave rise to the various understandings of space that he attributed to the West from ancient Greece to the Renaissance. His ideas initially met with great resistance, even incredulity, from art historians and scientists, which may have reflected the general reluctance of even intelligent and sophisticated people to recognise the extent to which their understandings of the world are limited and parochial. Panofsky’s insight that linear perspective is above all a convention no longer seems so radical as it parallels similar moves towards constructivism in anthropology, philosophy and political science.

Given Panofsky’s pioneering work, linear perspective is an appropriate frame of reference in which to explore the causal consequences of constitution. In the next section I address this problem in connection with the rise of the territorial state. I interrogate John Ruggie’s argument that linear perspective made the territorial state possible, perhaps even necessary.

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17. Constitution can work in reverse. Frames of reference that were once taken for granted can lose their hold. This has happened to the Christian identities in Europe, which were once primary for most people. More recently, there has been a remarkable postwar transformation of German identity and, with it, its moderating and augmenting with a supranational identification as ‘Europeans’. Stefan Berger, *The Search for Normality: National Identity and Historical Consciousness in Germany since 1800* (Providence, RI: Berghahn, 1997); J.-W., Müller, *Another Country: German Intellectuals, Unification and National Identity* (New Haven: Yale University Press, 2000).


I argue that this is a difficult claim to substantiate in the absence of mechanisms that link linear perspective to political practices. I offer maps as one such mechanism, but go on to argue that the relationship between visual frames and politics is very complex and needs to be understood in a broader cultural context.

The European Reconceptualisation of Space

The dominant actor in the modern international system is the territorial state. It is distinguished by its ability to impose its authority on a contiguous and effectively demarcated space. In the words of John Herz, a state is ‘an expanse of territory encircled for its identification and defence by a “hard shell” of fortifications’. Territorial states limit their authority to specific land areas, in contrast to the more universal claims typical of empires and religions. This development was the result of a long political and legal process that transformed the nature of political authority and its relationship to land. Medieval Europe was ‘a patchwork of overlapping and incomplete rights of government’ that were ‘inextricably superimposed and tangled’ and in which ‘different juridical instances were geographically interwoven and stratified, and plural allegiances, asymmetrical suzerainties and anomalous enclaves abounded’. Medieval authority was personalised and rarely absolute as actors had overlapping rights and privileges. Peasants, lords and kings frequently exercised different kinds of authority over unconnected parcels of land without definitive boundaries. Actors were largely untroubled by this heteronomy because they viewed themselves and the earth as part and parcel of a universal and divine order.

Political scientists on the whole have been hostile to claims that the territorial state was a rational response to economic developments.²⁵ John Ruggie, Hendrik Spruyt and Daniel Nexon note that when centralised territorial states began to emerge, many would-be states failed while some city states, city leagues and dynastic regimes grew and prospered.²⁶ Like John Herz before them, they find political and legal developments more important.²⁷ Ruggie emphasises the legitimacy that sovereignty conferred on territorial states. Spruyt directs our attention to the role of political coalitions and the superior ability of leaders of territorial states to form and maintain them as well as their ability to standardise weights, measures, coinage and laws.²⁸ Herz, Spruyt and Nexon consider the success of the territorial state as highly contingent and non-linear.²⁹

Ruggie notes other developments that contributed to success of the territorial state, among them the framing by Machiavelli and Hobbes of political actors as autonomous and egoistic beings, the corresponding emergence and spread of the ‘I’ form of speech and the spatial reconfiguration of households to provide separate rooms for separate activities.³⁰ The most important development, he nevertheless insists, was single-point or linear perspective in the arts. It carried over from art to politics:

What was true in the visual arts was equally true in politics: political space came to be defined as it appeared from a single fixed viewpoint. The concept

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of sovereignty ... was merely the doctrinal counterpart of the application of single-point perspective forms to the spatial organization of politics.31

This outcome, Ruggie suggests, was neither automatic nor rapid as it took considerable time for people to absorb the new perspective and its practical and political implications.32

Shifts in visual paradigms are relatively rare; scholars are in general agreement that one occurred in the Renaissance with the rediscovery of linear perspective.33 Ruggie offers no evidence that the visual revolution in art, architecture and science was responsible for, or somehow accelerated, the reconceptualisation of territory and, as a result, led to changes in political practice. Nor does Ruggie suggest any mechanism whereby changes in science and arts should prompt changes in political conceptualisation and practice. Consistency is an obvious possibility, but human beings find many ways of ‘seeing’ things in contradictory ways and holding contradictory beliefs. Ruggie’s thesis is not necessarily wrong, but it is incomplete. We cannot rule out the possibility that the reconceptualisations of space in science, art and politics were not causally linked, or that all three reconceptualisations were manifestations of more fundamental changes in European society. This is a question to which I will return.

One possible mechanism linking science to art and art to politics is cartography. Quattrocento artists became interested in cartography, something facilitated by Florence’s role as the centre of map-making. Grid techniques, central to the portolan maps used by Mediterranean navigators, were adapted to painting. Samuel Edgerton Jr speculates that Ptolemy’s Geographia, which came to Florence from Byzantium in about 1400, may have been ‘the missing link’ between science and architecture as it stimulated Brunelleschi’s studies of linear perspective.34 Early Renaissance maps did not emphasise accuracy. They sought to represent transcendental truths about the cosmos, as did mappae mundi, in which the physical world is metaphorically represented as the body of Christ. Map-makers were more interested in denoting the presence of islands and territories than in depicting their outlines. The 17th century witnessed a growing emphasis on realism, especially in Dutch cartography. This was made possible by the Renaissance rediscovery of Ptolemaic cartography and advances in optics, many of them by the Dutch. Significant too was the belief, which soon found expression in the visual arts, that sight is the sense through which God reveals His creation to mankind.

32. Ibid.
33. John White, The Birth and Rebirth of Pictorial Space (Boston: Faber, 1987); Edgerton, Renaissance Rediscovery of Linear Space.
34. Edgerton, Renaissance Rediscovery of Linear Perspective, 120.
Maps, beginning with cadastral surveys, provided early rulers with practical information helpful in asserting territorial claims. They underwent additional evolution as they became the servants of the territorial state. In 1559, Philip II of Spain sought to map his dominions on the Italian Peninsula and elsewhere in Europe. He instituted the Relaciones topográficas in the 1570s and sent a list of questions to colonial officials seeking information on the geography, history, resources, economy and population of their territories. Other political leaders followed his lead. Map-making of this kind may have encouraged rulers to understand their holdings as unitary and contiguous entities – or to try to turn them into such units – and redefine themselves as sovereign-territorial rulers. This inference is speculative, and we would require more evidence to persuade us that the two developments were causally, not merely temporally, related. The possibility also remains that rulers were drawn to maps because they had already begun to conceive of the territories in spatial terms. Archival research might shed further light on this question.

Ruggie’s thesis is problematic in another respect. Linear perspective originated as part of a religiously motivated project to bring God closer to Christians by restructuring how religious subjects were presented visually. Roger Bacon (c. 1220–92) urged that geometry and optics be harnessed towards this end. Meister Eckhart, an early 14th-century mystic, and St Antonin, Archbishop of Florence (1446–59), expanded on this theme and wrote about how lux gratiae pervades the universe. Giotto, Duccio, Cimabue, Ghiberti and Masaccio were deeply religious men who brought perspective into their art for this reason. There are many instances of innovations inspired by devotion to traditional values that in the longer-term help to undermine those values. A case in point is printing with movable type, invented at the same time as linear perspective. Many of the first books printed were Bibles or Latin grammars and many early printers and their supporters were inspired by religious goals. Probably more than any other innovation, printing facilitated the rise of secularism and oppositional political movements. This outcome

37. Edgerton, Renaissance Rediscovery of Linear Perspective, 60, 75.
was not intrinsic to printing but the result of how different agents chose to exploit the possibilities inherent in the process. Linear perspective is analogous. Its invention did not lead ineluctably to the territorial state, but required agents to disassociate it from its religious origins and reformatulate it as a prop for their modernising projects.

How does Ruggie’s argument map on to my continuum of constitutive causation? Following David Harvey, he contends that space and time are basic categories of human existence and that the transformation of space–time frames in the Renaissance produced the ‘modern mode’.38 He laments that we have no theory of this transformation and in lieu of one offers an account of how the modern system of states was constructed. It is an avowedly instrumental account as the question he intends to address is ‘what were the raw materials that people used and drew upon in constructing it?’ Linear perspective is described as one of these raw materials. This would place it at the low end of my continuum that describes frames that are consciously exploited to advance a project. Later, Ruggie writes that ‘The concept of sovereignty ... was merely the doctrinal counterpart of the application of single-point perspectival forms to the spatial organization of politics.’39 This statement seems to suggest that linear perspective had at some point moved far enough up the continuum to make it logical, if not necessary, to view and organise political space as a single, related field.

Ruggie asks how linear perspective came about and embraces the suggestions of art historians that it was the perspective particularly suited to Renaissance civilisation. Such a claim, of course, verges on the tautological. Perhaps sensing this difficulty, Ruggie suggests that:

material changes may have awakened both a need and a desire for this broad transformation in the prevailing social episteme, which produced new spatial forms. And entrepreneurial rulers could and did try to exploit those new images and ideas to advance their own interests.40

Once again, Ruggie offers no hint about what these material changes might be or how and why they evoked certain needs. As with his argument about a possible future change in space–time frames, he resorts to the surprisingly unconstructivist move of falling back on material developments to account for intellectual and artistic expressions. In effect, he proposes a linear explanation for linearity.

**Art, Science and Politics**

The visual revolution that began in the Renaissance may have started with the rediscovery of linear perspective – generally credited to Filippo

40. Ibid.
Brunelleschi – but went well beyond it. Medieval art often represented space as a largely undefined field on which multiple, sometimes unrelated, activities could be depicted. There was no compulsion to organise space as a whole, with the parts subservient to the larger whole. Tapestries, canvases and sculptures are generally filled with detail and our attention flits from one part of the work to another. To the extent that there is any wholeness, it is often in the feelings these works evoke or the religious messages they convey. Romanesque art nevertheless sought to create a sense of homogeneity by reducing space and bodies to surface.

With the Renaissance and renewed interest in Greek forms, space assumed a new importance. The idea of perspective re-emerged and, with it, the imposition of an overall order by which the parts can be related spatially to one another by their relationship to the whole. A major breakthrough in this connection was Giotto’s Life of St. Francis in the Upper Church of the Basilica of St Francis of Assisi (1296–1304). The artist imagined the viewer centrally positioned in front of each set of frescos and arranged for the lines of perspective to converge on a vertical axis running through the central picture of each group. The first surviving picture to make full use of linear perspective was Masaccio’s Trinity fresco in Santa Maria Novella, Florence, painted c. 1425. Space and its arrangement quickly became the organising principle for art. In paintings, compositional unity was achieved by balancing colour and form, foreground and background. We are still drawn to details, but in a different way. Our eyes go to and away from them as part of the process of understanding the whole. The sum is now more important than its parts, which are increasingly subordinated to it. These artistic developments found parallels in science, history and philosophy.

In the Quattrocento, the term perspectiva was used exclusively in optics, which since the ancient Greeks had been considered a branch of mathematics. At the end of the first half of the 15th century, the concept was taken up by artists. The Commentari of Florentine sculptor Lorenzo Ghiberti (c. 1450) described the science of perspectiva. Italian architects and artists were fascinated by optics. Some, like Leonardo, had an abiding interest in science and conceived of some of their artistic creations as scientific experiments. To show how multiple views of a person could be presented without violating the rules of perspective, Giorgione painted a nude man standing in a pool of still water and turning to one side.

42. Panofsky, Perspective as Symbolic Form, 51.
43. Ibid., 23–30; Edgerton, Renaissance Rediscovery of Linear Perspective, 14–15; White, Birth and Rebirth of Pictorial Space, 23–30.
44. Edgerton, Renaissance Rediscovery of Linear Perspective, 60.
The man’s front was visible as a reflection, as was his hidden profile in a burnished cuirass placed alongside him. On his other flank was a mirror in which his reverse profile was visible. The work was greatly praised as ingenious and beautiful.\textsuperscript{45} Mapping techniques also came into use. Beginning with Masaccio, Florentine artists began to use a grid system to transfer outlines and details of sketches to walls or canvases to be filled by frescos or paintings.\textsuperscript{46} David Hockney contends that many of the old masters used the novel technology of concave mirrors to reflect outlines of the faces they painted on canvas so they could be traced.\textsuperscript{47} Giotto is described by Filippo Villani as having used this technique for frescos.\textsuperscript{48} X-ray studies of faces, including that of Van Eyck’s \textit{Arnolfini Wedding}, indicate that this process was used but that artists’ hands were guided more often by inner visions that led them to depart from strictly realistic portrayals.\textsuperscript{49}

In contrast to the Renaissance, science and art in the modern period have only the loosest connection. The modern reconceptualisation of space began in mathematics with the development of non-Euclidean geometry by Nikolai Lobachevsky, János Bolyai and Carl Friedrich Gauss. Using the concept of manifolds, Bernhard Riemann (1826–66) theorised an infinite world of non-Euclidean geometries, including hyperbolic (negatively curved) and spherical (positively curved) geometries. Subsequent work on Riemannian manifolds introduced another layer of abstraction and complexity. These geometries bear some relationship to Euclidean geometry but relax or dispense with many of its key features. They most often incorporate points but not necessarily lines, distance and planes. Mathematics has also extended our conceptions of space by introducing additional dimensions beyond time and the three spatial dimensions.

Henri Poincaré (1854–1912) was among the first to recognise the possible implications of curved spaces for physics. Attempting to explain the results of the 1887 Michelson-Morley experiment on the speed of light, he proposed that space and time were not constants but changed in relation to motion. Working along similar lines, Einstein developed special relativity in 1905 and general relativity in 1917. Special relativity stipulates that nothing...
in space is absolute and treats distance and location as relative concepts. There is still a need for an absolute, but now it is the speed of light. With general relativity, physics embraced multi-dimensionality and contemporary versions of bosonic string theory incorporate up to 27 dimensions.

The rejection of traditional conceptions of space was equally pronounced in art, but for different reasons. Reacting in part to the development of photography and the realism it represented, Impressionists sought to present reality as they saw it. Surfaces, spaces and their borders are accordingly suggested but not defined or directly represented. In their paintings, we see beyond, into and around surfaces and spaces and are made aware of the atmosphere through which we perceive them. One of the ways in which these effects are achieved is by applying colours in small, layered brush strokes. Post-impressionists, beginning with Cézanne, sought to reduce reality to blocks of shapes and colours, mimicking the way they thought consciousness imposes cognitive order on the physical world.

Cubism broke entirely with linear perspective. Georges Braque and Pablo Picasso, Alexander Archipenko and Jacques Lipchitz represented figures and objects from multiple perspectives on the same canvas or from the multiple vantage points in their sculptures. ‘Simultaneity’ was explored more widely in poetry, music and film and in art by Cubist, Futurist and Dadaist collage, where cut out photographs and fragments of newsprint were pasted into drawings and paintings. Influenced by ‘primitivism’, Modigliani and Giacometti experimented with disfiguration. Giacometti went a step further and sought to break down the boundaries between figures and space. In his sculptures, figures are attenuated and eaten away, seemingly by elements from the surrounding space that have penetrated them. Building on Matisse and Derain, Fauvism also sought to create spatial ambiguity, as in Georges Braque’s Olive Trees (1907), where it is achieved by reverse use of colours traditionally associated with foreground and background, the running together of objects and the cutting off of almost every form by the painting’s borders.

The assault on traditional understandings of space accelerated in the postwar era. Francis Bacon, one of the most prominent postwar British artists, incorporated outside and inside views of the body in his portraits, violating our sense of layers and differentiated spaces. Mark Rothko and Jackson Pollock pioneered the installation idea of art and sought to draw viewers into the universes created by their large canvases. With the Cubists, Gertrude Stein observed, ‘the framing of life, the need that a picture exist in a frame, remain in its frame was over’. Rothko and Pollock refused to frame their canvases, insisting that their works expanded beyond the

spaces they filled. In those spaces, they also assaulted and played off traditional understandings of space. Pollock’s paintings are devoid of forms and perspective; we search, without success, for stable points from which to organise and make sense of his canvases, only to give up and allow our by now disoriented selves to be drawn into a world of curves and colours and movement. Rothko’s canvases often depict geometric shapes, but upon closer inspection it is apparent that these shapes are painted in a way to deny integrity to the surfaces and the shapes. So are their borders, which are not sharp but fuzzy. They create tension by playing off of our expectations that they should be firm and not bleed into the space that surrounds them. They confuse us further by creating controversy about their horizontal and vertical axes. Some critics have accused the Tate Modern of hanging Rothko’s two ‘Black on Maroon’ paintings the wrong way. The director of the Tate revealed that Rothko explicitly avoided giving instructions about how these canvases should be hung.52

Contemporary art has sought new ways to refigure space. Some artists engage directly with territories, boundaries and politics. The ‘conspiracy art’ of Mark Lombardi represents webs and networks in the form of intricate patterns of curves and lines to illustrate, among other things, the Vatican’s alleged involvement in the Iran-Contra scandal and links between global finance and international terrorism. In the aftermath of 9/11, FBI agents went to the Whitney Museum of American Art and asked to see a drawing of his on exhibit.53 Mona Hatoum challenges our understanding of maps and territorial boundaries by pulling threads out of carpets to create loose and distorted representations of countries. Alighieri Boetti uses Afghan women to embroider maps according to different principles of conceptual overlay. Carlos Amorales, a Mexican artist, also creates web-like structures to disfigure maps and other representations of political and non-political spaces. His ‘Useless Wonder’, created in 2005, incorporates Mondrian-like figures to show how bizarre ordered forms appear in the kind of spaces he creates.54

Some of the artists involved in reconceptualising space were undoubtedly aware of the breakthroughs of 20th-century physics, but almost all of the artists associated with the reconceptualisation of space in the late 19th and early 20th centuries appear to have derived their visual inspirations from non-scientific sources. The Impressionists were influenced by Japanese art, particularly ukiyo-e (pictures of the floating world) woodcut

prints, and several of them had sizeable collections. Vincent van Gogh incorporated pictures of Japanese prints in his canvases and painted variants of them. The Cubists were influenced by African art and some of them collected African masks and sculpture. Pablo Picasso’s so-called African period (1907–9) was inspired by the publicity accompanying French expansion in Africa and the importation to Paris and Brussels of African art. Futurism and the Bauhaus – two prominent artistic movements between the wars – worshipped technology but both built on modern, linear understandings of space. Picasso was adamant that Cubism grew out of earlier developments in art and had nothing whatsoever to do with mathematics, physics or psychoanalysis.55

Art and politics interacted closely but in a more superficial sense. Nineteenth-century modernist artists, among them, Jacques Louis David, Théodore Géricault, Eugène Delacroix and Gustave Courbet, engaged political controversies and scandals. Art sought to influence 20th-century politics more directly and was influenced by it in turn. World War I and its aftermath had profound consequences for the development of modern art in France, Germany and the Soviet Union. The war also utilised artists for everything from camouflage to enlistment and war bond posters, as did the Russian Revolution and other upheavals that followed.56 Artists in turn have aspired to influence politics, and some works with political messages (e.g., Ben Shawn’s The Passion of Sacco and Vanzetti and Picasso’s Guernica) became left-wing icons. Picasso’s Les Demoiselles d’Avignon (1907) offers a subtler critique of colonialism and its self-proclaimed civilising mission. The Africanised prostitutes associated Cubism with a primitivising mission for Europe.57 Art and artists also mobilised in support of fascism.58 Art was used as a conscious vehicle to delegitimise elites or mobilise support for political movements and projects. It operated at the low end of my continuum.

In the Renaissance and early modern Europe, by contrast, the connection between art and politics functioned at the middle and even high end of the continuum. Visual frames became quickly accepted and naturalised, making it easier for political actors to adopt and adapt them for their own uses. The explanation for these differences, I believe, can be found in the emergence of the individual as an autonomous and egoistic actor. This began as a project of philosophy and literature and was a catalyst

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for the visual revolution in science, art and politics. Revolutions in these fields became mutually reinforcing and helped to accelerate the transformation of European identity.

Identity Then and Now

The concept of the individual emerged only gradually from collective conceptions of identity based on roles. It is evident in the writings of Renaissance philosophers, most notably Machiavelli (1469–1527), and, later, in René Descartes (1596–1650), Thomas Hobbes (1588–1679) and John Locke (1632–1704). It also reshaped art and how artists approached their profession. Individual style and success became a matter of paramount importance. Patrons paid for, and often competed for, the work of masters. Artists vied with one another for worldly recognition and often regarded one another as rivals, as did the city-states where they could be coaxed to work. Commentators, as Cristoforo Landino did in his Apologia di Dante (1841), began to describe leading contemporary artists as ‘noble successors’ to those who had preceded them. Within their works, artists also began to differentiate individuals to a much greater extent than ever before. Sacred images especially had frequently been replicated over the centuries. Leonardo’s unfinished Adoration of the Magi (1482) used different facial types and expressions and was widely recognised to have broken new ground in the way its characters were deployed to suggest their relationships with one another. Michelangelo’s David is another paradigmatic example. His body and stance are those of a pagan hero, but his face, with its famous scowl – in sharp contrast to classical sculptures – is distorted to suggest concentration and a roiled state of mind. Classical statues, by contrast, eschewed any suggestion of psychological mood.

By the time of Locke, C. B. Macpherson writes, the individual was increasingly regarded as ‘the proprietor of his person and capacities’. Society was reconceived as ‘a lot of free individuals related to each other as proprietors of their own capacities and of what they have acquired by their exercise’. The construction of the territorial state followed upon the construction of the individual. This was an obvious parallel development, as states were conceived of by rulers as extensions of themselves and even personal domains. In the late 17th century, the state began to assume an identity independent from its ruler, as an autonomous actor in its own right.

61. Ibid., 40.
To the extent that the kingdom was conceived of as an entity in its own right, monarchs could no longer claim the state as property, but their more impersonal states could make more far-reaching claims on the loyalty and resources of citizens. In France, this transition took place during the course of the long reign of Louis XIV (1643–1715). Early depictions of Louis in literature and the plastic arts portray him as Jupiter, Apollo, the sun and famous heroes. He was compared to Solomon, Augustus, Constantine, Justinian, Clovis and Charlemagne. By the late 1680s, classical and mythical imagery and associations were on the wane, reflecting the general decline of antiquity as a cultural model in literature. Louis was increasingly represented in modern dress, in contemporary settings and surrounded by symbols of commerce, military might, science and the productive arts. ‘French order’ columns were designed for the Louvre in lieu of classical Ionic, Doric or Corinthian ones.

There was a corresponding change in the rhetoric of legitimacy. Mystical associations were on the wane as part of what Max Weber would later call the ‘disenchantment of the world’ (Entzauberung der Welt). The intellectual revolution of the 17th century, prompted by the works of Descartes, Galileo and Newton, among others, encouraged people to view the world in mechanical rather than organic terms. The commitment by scientists to understand the universe as a rational, if enormously elaborate, machine in which each part had its place was reflected in the effort by political theorists to understand, if not construct, the state along similar lines. As kings became demystified they lost some of what Bourdieu calls their symbolic capital. Not surprisingly, the symbolism invoked by Louis XIV and his advisers became more self-consciously rational, with the king portrayed as the indispensable cog in the machine or the source of its energy and direction.

68. Burke, *The Fabrication of Louis XIV*, passim, for examples.
Michael Walzer rightly observes that the state is invisible and must be personified before it can be seen and symbolised to be imagined. Symbolisation does not create unity, but units of discourse ‘around which emotions of loyalty and assurance can cluster’. Encouraging citizens to identify with and take pride in their nation and to regard the monarch as its embodiment requires courts, palaces, public squares and new or renovated capital cities. As with Louis XIV, art, architecture, literature and ritual were often manifestations of a coordinated and carefully supervised strategy to shape perceptions of monarchs at home and abroad. These projects can also be understood in less personal terms as efforts to create the roles and symbols critical to a centralising state.

The disembedding of the individual from society and the dense web of obligations, constraints and identities it had imposed, had profound implications for human behaviour that are still working their way through Western society, and the rest of the world by virtue of its intimate contact with Western culture. Ruggie notes some of these manifestations, among them the partitioning of dwellings into rooms designed for specific purposes. He describes the philosophical shift in our understanding of people as another contributing factor to the emergence and success of the territorial state. I suggest it was an underlying cause of both the territorial state and the visual revolution in the arts.

Linear perspective, I noted earlier, was only one feature of Renaissance art. Another important innovation was in the representation of people. Many Renaissance portraits were commissioned to assert or advertise their sponsors’ status and authority. In Gerlach Flicke’s portrait of Thomas Cranmer, Master John’s of Queen Mary I, Hans Epworth’s of Mary Neville and her son and Marcus Gheeraerts’ of Queen Elizabeth I, subjects wear jewellery, expensive clothing and furs and are surrounded by other trappings of power and wealth. Their hands display rings and show no signs of physical labour. There is little revealing about their faces. This style of portraiture reached its apotheosis in Anthony van Dyck’s 1633 portrait of Charles I, which shows him in armour on horseback and riding through a triumphal arch. Some artists, among them Leonardo, Rembrandt, Parmigianino, Titian and Rubens, began to portray what they considered as unique about the visage, body and character of their subjects. The two styles were combined in Isabel of Naples – conceived

by Raphael but executed by Giulio Romano – and in Raphael’s portrait of Pope Julius II (1511–12), which hangs in London’s National Gallery. The pope’s clothes, jewels and markers of rank are sharply outlined and exquisitely detailed, and are used to provide a sharp contrast to the slouching, aged and more loosely defined figure they adorn. Julius had been an energetic pope notorious for his temper. Raphael portrays him at the end of his life, and, in a sharp break with tradition, portrays him in a reflective mood, pondering perhaps his physical frailty or the expected impermanence of his notable political and administrative accomplishments. Julius appeared so real to contemporaries that Giorgio Vasari (1511–74), the great art historian of the era, used the verb temere (to fear) to describe the response of those who viewed the painting.71

Literature underwent a parallel evolution. Characters in Greek tragedies are constructed as archetypes; to the extent that they are distinctive, it is a result of the combination of social roles they embody. The tragedies of Shakespeare engage equally profound moral dilemmas but do so with characters that have distinctive personalities and inner lives. Both drive tragic plot lines forward. Philosophy, art and literature in the Renaissance and early modern Europe became vehicles for constructing the individual and exploring and problematising his and her potential.

In our era, mathematics, science, art and politics can all be described as expressions of modernity. The kinds of developments we have witnessed in these domains are hard to imagine in the absence of the emergence of the individual and other characteristic features of modernity.72 These developments are not only expressions of modernity, but have helped to negotiate it. Modern art has introduced changes in portraiture as radical as those of the Renaissance. The focus on the inner lives of subjects remains, but those inner lives have increasingly become symbolic of the anomie, discontent, confines or banality of modern life. This is evident in the portraits and sculptures of artists as diverse in style as Gustav Klimt, Pablo Picasso, Egon Schiele, Käthe Kollwitz, Georg Grosz, Francis Bacon and Lucien Freud. Some of these artists struggled to define new identities for themselves and, by extension, for people more generally. In the Renaissance and early modern Europe portraits negotiated and recorded emerging values and practices. Modern portraiture, by contrast, most often rebels against these values and practices.

It seems unlikely that scientific and artistic developments in and of themselves can bring about major shifts in political thinking and practice.


Like philosophy and literature, science and art can at best provide a language to help others describe and understand political phenomena, envisage new forms of structure and behaviour, and frame and justify projects to bring them about. What they do not provide, as the history of modern art demonstrates, is the incentive to formulate these projects. This must come from the outside, as it did in the Renaissance and early modern Europe with the emergence of the autonomous actor as the dominant form of identity.

The relationship between art and politics is further complicated by the apparent lack of one-to-one correspondence between changes in identity, art and political practice and its associated spatial forms. The emergence of the individual was not the only change in identity since early modern Europe, and it has been more of a gradual evolutionary process than a sharp transition or break with the past. As late as the beginning of the early 20th century, leading intellectuals in Europe and North America expressed astonishment at the rapidity with which traditional forms of association and behaviour were breaking down, leaving the individual free to make choices that were not available or acceptable in the past. Robert Musil, who wrote of the century’s great novels on the theme of how this transformation deprived people of identities, observed in retrospect that ‘sharp borderlines everywhere became blurred, and some new indescribable capacity for entering into hitherto unheard-of relationships threw up new people and new ideas’.73 The most famous assertion is Virginia Woolf’s claim that ‘on or about December, 1910, human character changed’.74 She was deeply involved in the Paris art and literary scene and found striking parallels in the radical changes in the creative world and everyday changes in behaviour, from taking liberties in grammar to doing the same in relations between husbands and wives, parents and children and masters and servants.75 Neither Musil nor Woolf maintained that there was any causal relationship between these domains. This kind of argument has almost always been the preserve of conservatives who attempt to arouse public support against artistic expression (e.g., Cubism, Stravinsky, rock ‘n’ roll, rap) by charging that it is corrupting of morals.

We observe parallel changes in science and art – and behaviour, if we buy the argument of Woolf and a score of other prominent intellectuals of the period – but not in politics. There was nothing playful, subversive or inside-looking about the growing administrative arms of government – quite the reverse. And at the very moment when the world seemed to be changing and the bonds of identity everywhere loosening, those of political identification were tightening. Nationalism was on the

75. Ibid.
rise everywhere in Europe and, as Musil, who set his novel in August 1913, so well knew, would instantly trump other identities for almost everyone the moment war broke out. Nationalism is inseparable from the territorial state. The latter made the former possible and territory remains the goal of nationalities not already in possession of it, or of territory they consider part of their national patrimony.

The triumph of nationalism in 1914 was unexpected – talk of the inevitability of World War I is all ex post facto. Europeans of all nationalities appeared to regard themselves as part of a wider culture that was increasingly tied together by an interchange of goods, people and ideas. As is well known, the level of globalisation that Europe had reached in 1914 was not equalled again until late in the 20th century. Even Schengen is nothing new. England and the Scandinavian countries never had passports and France stopped requiring them in 1843. Globalisation and openness came to a screeching halt in 1914, making it an intriguing exercise to consider what the path of European development might have been in the absence of a continental war.

We have been given a second opportunity at globalisation. This time around there is some hope that education, travel and greater economic and political interdependence might succeed in breaking down, or at least loosening the hold of, national identities. Such a transformation might draw on new visual forms to help legitimate and express itself: as globalisation advances it is conceivable that those interested in formulating more cosmopolitan identities might find the spatial revolutions in science and the arts a useful resource. Let me offer some thoughts as to how this might occur. Modernity brought role differentiation in its wake. Modern people are expected to perform a variety of roles arising from their commitments or associations with friends, partners, families, colleagues, and religious, political and social affiliations and interests. Each of these roles creates an identity with which the individual can feel varying degrees of identification. Some of these identities are political and have a territorial basis (i.e., city, region, country, continent or trans-continental culture). Nationalism is based on the premise that national identity trumps all others, and for some people in some states this claim of loyalty has been realised. Nationalism is inseparable from territory and Western societies are largely coextensive with national boundaries.

In parts of the post-industrial world nationalism is beginning to lose its hold over people. More sophisticated Americans are moving beyond it as a primary identification. National identity is merely another

76. On this latter point, Lebow, Forbidden Fruit, ch. 1.
78. Lebow, Forbidden Fruit, ch. 3 for contrasting counterfactual narratives.
identity, and one whose meaning has evolved away from Fourth of July, lump-in-the-throat patriotism. A growing minority of Americans regard flag waving and posters proclaiming ‘These Colors Don’t Run’ as no less dangerous than smoking, eating fatty fast foods and driving under the influence of alcohol. This kind of change is even more evident in Western Europe, where national identities coexist more comfortably with regional and supranational ones. Multi-lingual business executives and academics have typically worked in several countries and may well partner with someone who did not grow up in their native country. Cosmopolites on both sides of the Pond may strongly identify with a professional culture that transcends traditional national and racial divides.

Similarly, in the 18th century, the aristocratic elite was united by marriage and language. Its members spoke French; many did not even know the local language. They married across borders and not infrequently worked as diplomats or soldiers for countries with which they had no prior association. Their political, intellectual and social affiliations were more horizontal (class based) than vertical (national). This cosmopolitanism all but ended with the rise of nationalism, which reoriented even aristocratic loyalties on a vertical basis. The new cosmopolitanism is recreating horizontal affiliations and the group of people associated with it are not a class into which entry is restricted. Education, economic growth and travel could swell their ranks and make such an economically and intellectually influential group politically powerful as well. In these circumstances, identity could become even more divorced from territory and its associated national affiliations. Visual frames borrowed from the arts could help define, establish and propagate post-national identities.

**Conclusions**

I suggest that identities and cognitive frames of reference can be arrayed along a continuum with regard to their causal consequences. The identities and frames with the least likely causal consequences are those consciously mobilised to sell policies or projects. At the other, high end of the continuum are identities and frames that have become so ‘naturalised’ that they are taken for granted and have the effect of making some kinds of behaviour or responses all but inevitable and others all but impossible, as they are difficult even to imagine.

Linear perspective in the Renaissance appears to have begun at the low end of the continuum and over the course of time worked its way up towards the high end. Evidence of its naturalisation is found in later attempts by art historians, psychologists and optical scientists to describe it as a scientific advance that represents the world as it actually is, or at least how we see it. Further evidence comes from the resistance that other forms of representation meet. Medieval art strikes as visually primitive and modern art’s efforts to violate and go beyond linear perspective met
considerable hostility at the outset and have only limited appreciation today. It is not an exaggeration to claim that linear perspective, and the broader concept of the straight line, in which it is embedded, have become part of the bedrock of Western culture. We conceive of the straight line and the linear perspective to which it gives rise, not only as the proper manner for two-dimensional representations of three dimensions, but as the normal path for human lives, institutions and projects. We recognise variance in the form of curves, the dialectic and chaos, for example, but they are measured against the template of linearity. Remarks like Berchtold Brecht’s claim that ‘the shortest line between two points may be a crooked one’ strike us as counterintuitive, even funny.79

The modern transformation of space in mathematics, physics and art has not had the same impact on our culture because its appeal has been limited to a small, educated elite. It is at the low end of the continuum of constitutive causality. Its linkage to political projects is purely metaphorical. Linear perspective, by contrast, provided a central spatial frame of reference for the territorial state. It may have originated as metaphor; it was used in this way by a wide range of rulers in early modern Europe, including Louis XIV, to buttress their claims for more comprehensive authority over the territories they considered part of their patrimony. It subsequently penetrated Western culture to the point where Ruggie thinks it reasonable to postulate it as a possible cause of the territorial state. Following Panofsky’s lead, I have considered the possibility that linear perspective and the territorial state were both expressions of a deeper, underlying transformation. I have associated this transformation with the emergence of the individual identity, and treat the concept of sovereignty as another manifestation of this identity, but at the state level.

What accounts for these differences between the two visual revolutions and their political consequences? I offer three propositions. First, and foremost, is the difference, noted above, between the Renaissance and modern spatial revolutions. The former was part and parcel of a broader, fundamental transformation of European culture. Linear perspective gave expression to and helped instantiate this transformation. This reciprocal relationship strengthened its hold over the minds of people, not just the elite. Nothing similar has happened with the modern spatial revolution. There is no evidence that it is part of any broader transformation of identity, although I identified a scenario under which this might become possible.

Second are the very different receptions these spatial revolutions received at the outset. Linear perspective was embraced by political and religious authorities; both exploited it for their own ends. Giotto, Duccio,

Masaccio, Brunelleschi and Leonardo developed linear perspective in frescos and paintings they created in churches. They were employed by popes, bishops, private individuals, guilds or cities who valued their masterpieces as means of glorifying the Deity and conferring standing on them as sponsors. The modern spatial revolution was opposed from the outset by state authorities and official representatives of high culture. Beginning with Eduard Manet, Impressionists were excluded from the French Academy, and did not become acceptable to the establishment until the 20th century. Cubists were rejected on artistic and political grounds. Postwar expressionism remains an elite taste and public outlays on modernist and postmodernist art and sculpture often encounter public opposition, and not just in the US, unless they genuflect in the direction of kitsch. Something similar happened in science. The British scientific establishment was initially opposed to relativity – Eddington an important exception – for fear a German would dethrone the English Newton. Lenin rooted his understanding of Marxism in linear perspective and fiercely opposed relativity as well as non-conformist art and photography. The Nazis condemned aesthetic modernism and Hitler attacked Dadaism, Cubism and Futurism as ‘primitive forms of expression’. Stalin and his successors had equally plebeian tastes in art; socialist realism was imposed by fiat, and modernists, while they no longer faced the danger of execution or the Gulag after Stalin’s death in 1953, continued to be discouraged and oppressed.

Modern art, literature and film remain elite preoccupations. Mass exposure to them is limited, as is appreciation. In the early 1950s, the New Yorker ran a famous cartoon featuring three men in an art museum, each representative of a different class and in front of a different painting. Entitled, ‘High brow, middle brow and low brow’, it showed the best-dressed man looking at abstract art, the middle-class man looking at representational art and the worker looking at a nude. In the 1990 Cincinnati trial of photographer-artist Robert Mapplethorpe, the trial judge could only find one member of the jury pool who had ever attended art museums; she was excluded from the jury on the grounds that her

82. The reference is to a much discussed article by Russell Lynes, ‘Highbrow, Lowbrow, Middlebrow’, in the February 1949 issue of Harper’s, of which he was the managing editor. Two months later, Life magazine published a chart of American tastes ranging from highbrow to lowbrow. It subsequently became a party game to divide cultural artefacts, activities and people into these categories or the subcategories that proliferated.
knowledge of art would be ‘an unnecessary burden’. By contrast, the works of art that pioneered linear perspective were readily accessible to ordinary people and very much appreciated by them, judging from the contemporary reports of Vasari and others. Many citizens developed the same kind of pride from the beautification of their city through churches and their art that their sponsors did. Unlike their modern counterparts, who may never set foot in a museum if it is not part of a school trip, many of these burghers were frequent visitors to churches. Frescos on their walls were admired and linear perspective rather rapidly entered what might be called the mass culture of its day.

Third is the extent to which elites adopt new spatial forms as vehicles for framing or advancing projects of their own. As we have observed in the Renaissance, paintings that incorporated linear perspective were much admired, providing further incentives for those interested in gaining or displaying status to sponsor them. Of equal importance, linear perspective became the handmaiden of other projects, most notably the development and justification of the territorial state. Whether it helped create this project or was simply mobilised to help bring it about remains a matter of controversy, but there can be no doubt that it played at least the latter role. State-building provided another vehicle for its propagation and ultimate naturalisation. Nothing similar has happened with the more recent spatial revolution. Efforts by artists to employ such perspectives on behalf of the Bolshevik revolution were soon quashed and they have remained in political and cultural limbo ever since. The two, of course, are not unrelated.

The relationship between art and politics is a complex one that raises fascinating substantive and methodological questions. Like Ruggie, I have tried to show how we need to look beyond the limited domain in which we routinely search for explanations for key political developments. Cognitive frames of reference, like linear perspective, have causal consequences in proportion to the degree that they reflect deep-seated cultural orientations. In an open-ended world, the extent of connections between these orientations and behaviour is hardly surprising but remains largely unexplored. Constitutive causation can provide a means of illuminating these connections and thereby broaden our understanding of international relations.

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