

## CHAPTER 7

### C7 Counting (on) Being

#### On Jacob Klein's Return to Platonic Dialectic

##### Counting (on) Being

##### Larsen

##### Kristian Larsen

C7.P1 Jacob Klein (1899–1978) was a student of Martin Heidegger and closely connected with Edmund Husserl. His engagement with ancient science and philosophy and, in particular, with Plato, helped pave the way for what is now sometimes called continental readings of ancient philosophy, and his approach to ancient philosophy was influenced significantly by, and responded critically to, the thought of both Husserl and Heidegger. Nevertheless, few people today would think of him as an important member of the so-called phenomenological movement or consider his readings of the Western philosophical and scientific tradition an important aspect of the phenomenological movement's continuous dialogue with the Greek origins of this tradition.

C7.P2 This is, it may be argued, an effect of the comparative obscurity of Klein's work. His main work, *Greek Mathematical Thought and the Origin of Algebra*, originally published as two articles in German in 1936 and translated into English in 1968, is a demanding study devoted to analyzing a change in concept formations characteristic of modern natural science. While praised by some for its profundity and insight, and while promising to contain a key for understanding modern conceptuality as such and the difference between modern and ancient science, the work

has also been regarded as dry and “overly scholarly.”<sup>1</sup> Moreover, compared with phenomenological masterpieces such as Husserl’s *Crisis of the European Sciences* or Heidegger’s *Being and Time* and their differing discussions of the alleged crisis of modern science and philosophy, the subject Klein’s work discusses—the ancient concept of *arithmoi* or ‘counting numbers’ and their re-interpretation as numbers in modernity—may seem far removed from our most pressing, existential concerns. As regards Klein’s other work, which consists of a detailed commentary on Plato’s *Meno*, a less detailed commentary on Plato’s *Theaetetus*, *Sophist*, and *Statesman*, and a couple of dozen lectures and essays, they share a certain family resemblance with the work of Klein’s lifelong friend Leo Strauss (1899–1973). But, compared with works by Strauss such as *Natural Right and History* and *The City and Man*, Klein’s work may easily appear less radical and provocative, and less significant for understanding defining features of modernity.

C7.P3 The aim of this chapter is to show that Klein’s work, despite first appearances, contains a highly interesting and surprisingly relevant analysis of the intellectual breakdown characterizing late modernity, that is, what could with some right be called our present situation of crisis.<sup>2</sup>

Klein’s analysis takes as its point of departure a contrasting comparison of ancient and modern

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<sup>1</sup> For a discussion of the allegedly dry and overly scholarly style of the work, see Hopkins (2012, 286–8).

<sup>2</sup> In the preface to the English translation of Klein’s study *Greek Logistic and the Origin of Algebra*, written more than thirty years after the German original was published, Klein thus suggests that, were he to write the book today, “the change from the ancient to the modern mode of thinking would be viewed in a larger perspective” (*Algebra*, v). It is this larger perspective that I hope to illuminate in this chapter.

science and philosophy and proceeds to demonstrate that, while modern science may in many respects be superior to ancient science, it also blinds us to fundamental aspects of human life and alienates us both from the world in which we live and from ourselves. Central to this analysis is the claim that modern science and philosophy is derived from ancient philosophy in such a way that it hides the ancient foundation upon which it is erected.

C7.P4

Klein's analysis of the complex relation between modern modes of thought and their ancient antecedents thus brings him into an especially close proximity to the thought of Heidegger.<sup>3</sup> But his analysis also contains some profound differences compared to that offered

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<sup>3</sup> Recent work on Klein has explored the connection between Klein's early work and Husserl's

*Crisis* and other studies by Husserl from the same period (see Hopkins 2003; Kates 2004; Cosgrove 2008; and Hopkins 2011). As several scholars emphasize, Husserl's concepts of sedimentation and reactivation are sources of inspiration for Klein's historical investigations, and both concepts are, in fact, discussed by Klein in "Phenomenology and the History of Science" (see PhHS, 72–8), one of the earliest essays on the later Husserl's alleged historical "turn." As Hopkins (2011, 17–23) demonstrates, Klein's early work in fact anticipates central aspects of Husserl's last writings in various ways. Also, Hopkins stresses, as does Klein, that Husserl's alleged turn is in reality a deepening of a question concerning origins that dominated Husserl's thought from the beginning. In highlighting Klein's connection to Heidegger and Strauss in this chapter, and by emphasizing the importance of Heidegger's conception of a "destruction" of the history of metaphysics **for Klein**, rather than Husserl's conception of a "de-sedimentation" of scientific concepts, I do not mean to downplay the importance of Husserl for Klein. The main point is that

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by Heidegger, differences that set his approach to the history of philosophy and science clearly apart from Heidegger's and demonstrate a deep connection between his understanding of ancient philosophy, Plato in particular, and that of Strauss. As this chapter will seek to demonstrate, what Klein presents as an interpretation of Platonic philosophy can be read as a subtle but weighty critique of modern philosophy and "the primacy of the practical" that, according to Klein, characterizes it, a critique that has a clear parallel in Strauss's famous attempt to reopen the "case of the moderns against the ancients" (*Hobbes*, 9/xv).<sup>4</sup>

C7.P5 In order to bring the radical character and real significance of Klein's thought into clearer focus, it is therefore helpful to begin by comparing Klein's approach to ancient philosophy briefly to that of Heidegger and then to compare Klein's interpretation of the conceptual shift he argues takes place in early modern science with Strauss's argument for a conceptual shift in early modern political philosophy. When seen from these perspectives, Klein's interpretation of Platonic dialectic reveals itself as having a significance also beyond Platonic scholarship more narrowly understood.

## C7.S1 1 Klein and Heidegger

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Husserl's published work did not contain close interpretations of ancient thought, whereas Heidegger's did, and these interpretations had a lasting influence on Klein.

<sup>4</sup> Kates ([2004](#), 80) observes, to my mind correctly, that the "deepest import of Klein's thought for all philosophy arguably lies with his reinterpretation of Plato," insofar as this reinterpretation is a critical reinterpretation of modernity. On the connection between Klein and Strauss, and their reaction to Heidegger and modern philosophy, see Velkley ([2011](#), 157–63).

C7.P6 In a never-presented prologue written to a lecture Leo Strauss delivered at St. John's College in 1959, Strauss recalls the 1920s in Germany—the years in which his and Jacob Klein's minds “took their lasting directions” (*Modernity*, 450). In those formative years, Strauss writes, “nothing affected us as profoundly as the thought of Heidegger” (*ibid.*). Strauss proceeds to state that while everyone else among the younger generation “who had ears to hear” was either overwhelmed by Heidegger or else engaged in “ineffective rearguard actions against him,” Klein stood out by being the only one who “saw why Heidegger is truly important: by uprooting and not simply rejecting the tradition of philosophy, he made it possible for the first time after many centuries ... to see the roots of the tradition as they are” (*ibid.*).

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C7.P7 The importance of Heidegger for his own thought was later emphasized by Klein in a “giving of accounts” that he and Strauss presented at St. John's College in 1970. Here Klein explains that his meeting with Heidegger changed his course of study completely, since Heidegger enabled him, for the first time, truly to “understand something written by another man, namely, Aristotle” (*Modernity*, 458). The result of this change of course was that Klein came to realize that “one had to distinguish the classical mode of thinking from the modern mode of thinking” and, in the end, that modern science “is derived from the classical mode of thinking” but that “this derivation is also a dilution which blinds our sight” (*ibid.*). Because of this blinding effect of modern, diluted science, Klein further stated, we have to “relearn what the ancients knew; we should be able to persist in scientific investigations, where real progress is possible, although the science with which we are familiar is also capable of regress and of bringing about a fundamental forgetfulness of most important things” (*ibid.*).

C7.P8 Klein's encounter with Heidegger's phenomenological interpretations of Aristotle thus ultimately led Klein to see modern science as problematic due to its dependence on the modern

mode of thinking, a mode of thought Klein saw as derived from, but also significantly different from, the ancient mode of thinking. It was accordingly, as Strauss also points out, on the same occasion, Heidegger's destructive approach to the philosophical tradition and to modern philosophy for the purpose of bringing to light its foundation, ancient Greek philosophy, that attracted Klein to Heidegger (*Modernity*, 462).

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C7.P9 The purpose of his work of "destruction" or, more accurately, demolition, is, as Heidegger famously put it in *Being and Time*, to loosen up the "hardened tradition ... and the concealments which it has brought about" (SZ, 22/44). Put differently, its aim is to remove the many layers of the Western tradition we consciously or unconsciously live off and in, a tradition that conceals its own roots, in order to facilitate a "positive return to the past in the sense of a productive appropriation" of it (SZ, 21/43; my translation). But Klein, Strauss also states, "was more attracted by the Aristotle brought to light and life by Heidegger than by Heidegger's own philosophy" (*Modernity*, 462), and he further suggests that it was Klein's early studies of Aristotle and Plato, set in motion by Heidegger, that taught Strauss that "the one thing needed philosophically is ... a return to, a recovery of, classical philosophy" (*Modernity*, 462). He thereby suggests that his and Klein's engagement with classical philosophy is best understood as a response to Heidegger's philosophy and, in particular, to Heidegger's understanding of the dependence of modern philosophy on its ancient roots and the need for "returning," or "retracing one's steps back" (*Rückgang*) to these roots.<sup>5</sup>

C7.P10 It appears that Heidegger's conception of a return to the roots of the Western philosophical tradition, presented in the period around *Being and Time* as the need for a

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<sup>5</sup> For a thought-provoking discussion of Strauss's relation to Heidegger, see Velkley (2011, esp. 121–32); see also Zuckert and Zuckert (2014, 19–23, 258–66).

destruction of the history of ontology, was from the beginning motivated by what he perceived as a fundamental crisis in that tradition as well as a broader crisis in the Western world resulting from that crisis. In a lecture course delivered in the winter semester 1923–4, Heidegger declared that he thought that philosophy had come to its end and that we are now facing wholly new tasks that have nothing to do with traditional philosophy (GA 17, 1/1), a *motif* that recurs later in his distinction between philosophy and thinking (see GA 14, 67–90/55–73). From a lecture course given in the winter semester 1921–2 it also becomes clear that he found that Spengler’s diagnosis of the time as one in which the Western tradition was coming to its end had to be taken very seriously, despite the fact that Spengler, according to Heidegger, lacked the philosophical means to understand the full significance of this breakdown and its connection to the rise of historical consciousness (see GA 61, 26, 74–5/21, 55–6). Heidegger’s call for a return to the roots of the Western tradition, a return he also describes as a “going back through the decisive starting-points of philosophy, in the rubble of whose tradition we stand” (GA 62, 174; translation from Velkley 2011, 169), can therefore be regarded first and foremost as an attempt to understand this situation of breakdown or crisis, what motivates it, and how we may recover from it.<sup>6</sup> Heidegger’s engagement with ancient thought is accordingly from the very beginning a complex *Auseinandersetzung*, that is, a critical dialogue that seeks to understand the present crisis and intellectual breakdown by looking at the origin of the tradition that, according to Heidegger, was coming to its end.

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<sup>6</sup> There is a clear connection between Heidegger’s reflections on the breakdown of the Western tradition and Husserl’s considerations in *Crisis*; see the Introduction to this volume, pp. 9 and 12–13, for more on this.

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The complexity of this dialogue may be illustrated as follows: In *Being and Time* Heidegger stresses that the envisaged return to ancient thought through a destruction of the tradition erected upon it is positive in character, for it is supposed to result in a “productive appropriation” of the past (SZ, 21/43), the purpose of which is to “stake out the positive possibilities of that tradition” (SZ, 22/44). Such a productive appropriation of various aspects of ancient philosophy can be found in the many, often brilliant, interpretations of ancient philosophy that Heidegger delivers throughout the 1920s, where he develops his own understanding of *Dasein*, of the nature of discourse, of truth, and other themes through novel interpretations of especially Aristotle and Plato.

C7.P12

But there can be little doubt that from the beginning Heidegger was convinced that the Greek experience of being, which he saw expressed in a condensed form in the thought of Plato and Aristotle, stood in the way of raising the very question concerning being that he was concerned to raise. Plato and Aristotle, according to Heidegger, did raise this question at the beginning of the philosophical tradition, but their answers to it, which, as Heidegger expresses it, have “long since become trivialized,” now prevent the question from being raised in earnest (SZ, 1–2/22).

C7.P13

Part of the reason for this difficulty is, according to Heidegger, that the original answers given to this question—that the real being of the things that are is what is permanent and unchanging, is their essence or intelligible look—prevent us from developing a satisfying ontological interpretation of the mode of being of *that* being that is characterized by its ability to raise the question concerning being: ourselves as *Dasein*.<sup>7</sup> But this means that Greek ontology

<sup>7</sup> For further discussion of this problem, see the introduction to this volume, pp. ~~12–14~~, and ch. 2, pp. ~~72–4~~.

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stands in the way of a phenomenological account of the *mode of being* proper to questioning, namely, the mode of being characterizing us *as* Dasein, and this, Heidegger argues, in turn prevents us from fully understanding the *question* concerning being, insofar as this question is an enactment of our own mode of being; it thus, in the end, blocks us from an understanding of being as such (see in particular GA 20, 200–2/148–9). Philosophy, understood as a metaphysical or ontological tradition, thus grows out of a specific mode of being, namely, the questioning engagement with the world and ourselves, and results from our pre-ontological understanding of being, but this understanding has tended to favor one mode of being above all other modes to such a degree that we lose sight of our own mode of being and being in general.

C7.P14 In the lecture course *Die Grundbegriffe der Phänomenologie*, Heidegger puts the point in the following way: “Already in antiquity an average concept of being emerged that was utilized in the interpretation of all the beings of the various regions of being [*Seinsgebiete*] and their manners of being [*Seinsweisen*], even while the specific being itself in its structure was not made into a problem and could not be circumscribed. In this manner Plato saw quite well that the soul and its logos is another kind of being than perceptible being. But he was not able to delimit the specific manner of being [*Seinsart*] of this being over against the manner of being of any other kind of being” (GA 24, 30/22).

C7.P15 This criticism of Plato seems somewhat superficial<sup>8</sup>—dialogues such as the *Symposium*, the *Phaedo*, and the *Phaedrus*, for instance, quite clearly seek to demarcate the being of both the soul and *logos* and to determine how they differ from, and are related to, both sensible and supersensible being. Moreover, Heidegger’s own attitude to ancient philosophy is more complex than this quotation suggests; as can be argued, many of Heidegger’s determinations of Dasein,

<sup>8</sup> For a critique, see Rosen (1983, 4–6); Gonzalez (2009). See also Larsen (2016).

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truth, and speech were originally developed as elements in his interpretations of Plato and Aristotle and they could therefore, with some right, be said to be Heidegger's "translations" of central Platonic and Aristotelian concepts.<sup>9</sup> But the simple fact remains that from the beginning of his philosophical career Heidegger tended to regard Plato and Aristotle as the originators of a metaphysical tradition that he thought had come to an end, and further that this fact called for a radical reconsideration of the origin of that tradition and what motivated it. It was the work on Plato and, especially, Aristotle that Heidegger carried out as part of this reconsideration that fascinated both Klein and Strauss.

C7.P16

In many respects, Strauss and Klein also accepted Heidegger's diagnosis of the twentieth century as being a time of crisis and the breakdown of traditions. In *The City and Man*, Strauss thus writes that "the crisis of our time may have the accidental advantage of enabling us to understand in an untraditional or fresh manner what was hitherto understood only in a traditional or derivative manner" (Hua I, 9), suggesting that the breakdown of traditional, Western ideals of reason and rationality and traditional political philosophy may help facilitate the return to the origins of the tradition that Heidegger called for. Klein for his part, in a lecture entitled *Modern Rationalism* that he delivered some time between 1938 and 1940, states that in the modern world "our own life does not belong to us," among other things because "the vast machinery of our society permits us to perceive the world only through generally accepted views" (MR, 64). This state of affairs where, to put it in Heideggerian terms, *das Man* or, in Platonic terms, simple *doxa* rules everything entails that "our work, our pleasures, even our love and our hatred are dominated" by the all-pervading forces dominating modern societies, that is, the social and

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<sup>9</sup> See especially the work of Franco Volpi, for instance (1992) and (2007). For further discussion of Heidegger's interpretation of Aristotelian ethical terms, see chapter 3 in this anthology.

economic necessities we tend to take for granted as the ultimate foundation for all political life (MR, 63–4).

C7.P17

In contrast to the early Heidegger, however, Klein believes that these forces are made possible not by a natural tendency of Dasein to misinterpret itself,<sup>10</sup> but rather by modern, mathematical physics and, more precisely, by the specific kind of concept formation that made modern mathematical physics possible. For mathematical physics and the type of concept formation that made it possible, Klein claims in a number of lectures from the thirties, forties, and fifties, dominate modern consciousness completely and even force us to pose all questions we may be inclined to pose in the specific manner dictated by modern science itself (see especially WP, 2, 31–3; see also MR, 60–4; PF 126; HLA 134–5; ILE, 162, 167). These claims, one might say, are Klein’s response to Heidegger’s discussion of the problems pertaining to raising the so-called *Seinsfrage*.<sup>11</sup> To illustrate this state of affairs where modern conceptuality dominates all aspects of our life, Klein suggested in a lecture held in 1952 that we have “to picture ourselves,” as modern human beings, “in a cave, perhaps a deeper and vaster one than our forefathers ever imagined” (PF, 126). Moreover, Klein suggests, the freedom we as modern human beings enjoy as a result of modern science “has perhaps created more chains and chains of a novel nature that hold us down” (ibid.).

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<sup>10</sup> It might be argued that the claim that it is a natural tendency of Dasein itself to “fall” and to misinterpret itself in accordance with categories developed for the purpose of interpreting the “things” of the natural world is characteristic only of the early Heidegger.

<sup>11</sup> As pointed out in n. 3 above, there is also a clear parallel to Husserl’s project in *Crisis*, a work that Klein’s early work anticipates in various ways.

C7.P18 As the image of the cave with its clear Platonic resonance suggests, Klein like Heidegger thought that the situation of intellectual crisis he found himself in, that is, from Klein's point of view, our enslavement under modern modes of thought, was best understood by returning to the roots of our tradition, to Greek philosophy. In contrast to Heidegger, however, Klein did not see these roots as essentially problematic. In the words of Strauss, Klein understood that Heidegger had opened a possibility "without intending it: the possibility of a genuine return to classical philosophy, to the philosophy of Aristotle and Plato, a return with open eyes and in full clarity about the infinite difficulties which it entails," thus making it possible "perhaps to know, what so many merely believe, that those roots are the only natural and healthy roots" (*Modernity*, 450).

## C7.S2 2 Klein and Strauss

C7.P19 To understand what the "return with open eyes" that Strauss mentions entails, it will be helpful to compare Klein's interpretation of the emergence of modern science with the interpretation of the emergence of modern political philosophy developed by Strauss. What Strauss meant to suggest by expressions such as a return to or a recovery of ancient philosophy is captured succinctly in his (in)famous suggestion that "the case of the moderns against the ancients must be reopened" (*Hobbes* 9/xv; see also the draft for a letter to Gerhard Krüger in *Hobbes*, 414), that is, the suggestion that we must reconsider whether modern philosophy and the modern world resulting from it should be seen as progress when compared to ancient philosophy and the premodern world.

C7.P20 Strauss came to believe that the case had to be reopened because, in his own words, he "had seen that the modern mind had lost its self-confidence" and "that it was turning into nihilism, or what is in practice the same thing, fanatical obscurantism" (*Hobbes* 9/xv). In a lecture entitled "Progress or Return" from 1952, Strauss thus suggested that modern man, while

being “a giant in comparison to earlier man” due to the increased power resulting from modern science, is also “a blind giant,” since this increase is not accompanied by an increase in wisdom but rather by the “view that man is not able to distinguish in a responsible manner between good and evil” (*Modernity*, 98; see also *NR*, 3–4).

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C7.P21

According to Strauss, a defining feature of late modernity is that we have come to see ultimate goals or the highest goods, that is, the objects ancient political thought was aimed at discussing and circumscribing or defining, as something that cannot be discussed or decided upon in a rational manner, and to regard it as possible to discuss rationally only the means that will lead to whatever goals or ends we choose to posit. This breakdown of rationality, Strauss argues, ultimately results from the emergence of modern philosophy and modern natural science in the sixteenth and seventeenth centuries and its displacement of the ancient ideal of the contemplative life and the view that knowledge is an end in itself, rather than a means to increased power and dominance of nature (*CM*, 41–2; *CM*, 100–4; *Machiavelli*, 194–9).<sup>12</sup>

<sup>12</sup> In an interview with George Anastaplo, Eva Brann recalls what she perceived as a major

difference between Strauss and Klein, namely that, to Strauss, “political philosophy was fundamental,” whereas Klein “thought that ontology, or metaphysics, was fundamental, and that the revolution in science was more telling for modernity than the political revolution” (Brann 2011). While this observation could seem to be confirmed by the overall impression Strauss’s work may leave on its readers, centered as it is on political philosophy, in contrast to Klein’s work, which is centered on the history of science, Brann might be seen as overlooking a profound connection between the thought of Klein and Strauss. To both Strauss and Klein, modernity is first and foremost characterized by the emphasis that founders of modernity, such as Machiavelli, Hobbes, and Bacon, put on

A claim central to Strauss's analysis of the alleged crisis of modernity is that classical political philosophy, in its Platonic and Aristotelian origin, was "related to political life directly" (*WPP*, 78) in the precise sense that its guiding questions were identical with questions posed by intelligent citizens living ordinary political lives—for instance, what the best political regime is that will enable the best possible life or what group of citizens is best fitted to rule society (*WPP*, 79–86; see also 34).<sup>13</sup> It is this direct relation to political life that disappears in the later tradition

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practical reason and by the emergence of a new science, developed specifically for "the relief of man's estate," as Bacon famously put it. In other words, it is the "primacy of the practical" and the eclipse of the *bios theōrētikos* in modern philosophy by man's practical concerns that, for both Strauss and Klein, constitute the real difference between ancient and modern philosophy. For Strauss's views on the conceptual shift characterizing modernity, see especially *Machiavelli* (294–9); *NR* (166–84); see also *CM* (41–45); *CM* (100–4). I thank Richard Velkley for helping me realize this important continuity between Strauss and Klein.

<sup>13</sup> It must be emphasized that Strauss did not believe that political philosophy in its Socratic origin had a naïve, direct relation to political life. Rather, he regarded it as already constituting a return to a direct understanding of political life that was ignored by the philosophical tradition preceding Socrates (see *CM*, 19), i.e., what we are now accustomed to think of as the pre-Socratics and the sophists. In a manner resembling Heidegger, Strauss suggested that *eidōs*, a term central to Platonic ontology, "signifies primarily that which is visible to all without any particular effort" and further that Socrates, when posing his "What is X?" question, "started not from what is first in itself or first by nature but from what is first for us, from what comes to sight first, from the phenomena. But the

of political philosophy. At the same time, Strauss argues, classical political philosophy was kept in motion by the recognition that the perspective on political life characteristic of the “good citizen” and, in particular, what such a citizen would accept as solutions to political problems, are “inadequate;” for such solutions tend to “make men oblivious of man’s highest perfection” (*Machiavelli*, 296). Put differently, the goal or *telos* of the human being that is identified in political life—the good life led in accordance with political virtue—is not the goal or *telos* of the human being as such, identified by philosophy—the life of contemplation and the quest for

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being of things, their What, comes first to sight, not in what we see of them, but in what is said about them or in opinions about them” (*NR*, 123–4). According to Strauss, Socrates, rather than ignoring mortal opinions, as the goddess of Parmenides’ poem recommends (*DK28 B1.29*), and as philosophers prior to Socrates may with some right have been said to have done, turned to investigate men’s opinions, the “surface of things,” in order to gain a more comprehensive understanding of the whole or the totality of all things (*NR*, 122). It is this situation, according to Strauss, that the Platonic image of the cave illustrates (see *PG*, 13–14n2; *NR*, 121–2). Our natural attitude is such that we are caught up in our opinions, or rather, we understand our world through commonly accepted opinions. The task of the philosopher is to question these opinions, not simply in order to reject them, but in order to move through them to a genuine understanding of the whole, an understanding that in turn cannot be divorced entirely from the realm of opinions without dire practical consequences. This also means that political investigations we find in Plato, according to Strauss, are a point of departure for a more profound investigation—one that does not limit itself to questions concerning the human good or political matters, but ultimately asks what the good as such, and the whole, is.

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wisdom. Thus, while philosophy as a human activity depends on the city for its survival, and while the questions raised by the ordinary citizen are fundamental questions to the philosopher as well, the general direction in which these questions took Socrates, Plato, and Aristotle was not necessarily acceptable to the ordinary citizen. Political philosophy, in its origin, was born out of this difficulty: How does one make philosophy politically respectable?

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C7.P23

The subsequent tradition of political philosophy, Strauss further argues, was “related to political life through the medium of a tradition of political philosophy” (*WPP*, 78; see also 27), since its main concepts and questions were derived from the political philosophy of Plato and Aristotle. It thereby came to take the necessity of political philosophy for granted, without emphasizing or reflecting upon the direct, but problematic, connection between philosophy and ordinary political life. In this way it acquired a certain abstract character (*WPP*, 28). Whereas Plato and Aristotle took ordinary political opinions about important matters as their points of departure and sought to arrive at real knowledge concerning these things through dialectical inquiry, knowledge that might in the end transcend the political perspective radically, the later tradition set out from discussions concerning the ultimate principles of political life and types of regimes and how one could then move “from the abstract towards the concrete” (*ibid.*).

C7.P24

This tradition nevertheless preserved the “orientation and scope” of original political philosophy for a long time and thereby “preserved that direct relation to a *certain extent*” (*WPP*, 79; my emphasis). But when Machiavelli and Hobbes rejected this tradition of political philosophy in early modernity and introduced a wholly new political philosophy, based on a new conception of science aimed at “relieving man’s estate,” their revolution “did not restore the direct relation to political life that had existed in the beginning” even though it claimed to be a more scientific approach to political phenomena; rather, “the new political philosophy was



related to political life through the medium of the inherited general notion of political philosophy or science, and through the medium of a new concept of science” (*WPP*, 79). The direct relation to political life, and the awareness of the tension between the political and the philosophical perspective on the good life, were lost to sight. The consequences were that the modern political philosopher, in particular Machiavelli, “remains on the whole within the limits set by the city qua closed to philosophy,” in contrast to Plato and Aristotle, who were not confined to thinking in accordance with the perspective of the city and the *demos*, and that the modern philosopher, “accepting the ends of the *demos* as beyond appeal, ... seeks for the best means conducive to those ends” (*Machiavelli*, 296; compare with *WPP*, 31–2). The modern political philosopher is at best a thinker who supplies the means to the ends set by the *demos*.

C7.P25

This problem is a consequence of the fact that modern political philosophy, according to Strauss, understands itself as a new science that replaces the old science rather than as the natural outgrowth of our ordinary opinions about the political life. It seeks in a way to arrive at the same matter that classical political philosophy did, the good society and an answer to the question what the best regime is, but it rejects the perspective on life characteristic of the “good citizen” in favor of a more “scientific” perspective, in accordance with which fear of violent death and the striving for self-preservation are understood as the main motivational forces behind civil society. To that end it allies itself with modern science, aimed at mastery and control of nature and the “relief of man’s estate” rather than at knowledge of the totality of reality. For that reason, and since it rejects the perspective on life characteristic of the ordinary citizen, the question how one should approach political phenomena correctly, that is, what method of inquiry one should use, becomes *the* central question in political philosophy, just as method became central in the new science or philosophy in general—under the assumption that the old approach was wholly

inadequate (*WPP*, 79). The consequence is, according to Strauss, that the new political philosophy, rather than taking the ordinary citizen's understanding of political phenomena as its first object of reflection—for instance, What is justice? Is the citizen's perspective on justice correct?—as Plato and Aristotle did, took the old political philosophy, derived from classical political philosophy, as its principal object of reflection—by rejecting it.

C7.P26 But precisely by rejecting it, it also came to depend on it. An example may serve to illustrate this claim. Hobbes, Strauss suggests in a draft for a letter he wrote to Gerhard Krüger, never poses as real questions the questions concerning the *eidōs*, the “look” or “form,” of things that was central to both Plato and Aristotle, questions about the essence of virtue or of the social character of human beings. Instead Hobbes took for granted that these questions had been settled already and that the answers to them were trivial. Hobbes then suggested that his thought was much deeper and more radical than that of the ancients because he, in contrast to them, asked whether or not man is even able to live up to such standards, standards the nature of which he never considered as objects of true inquiry (see *Hobbes*, 416; see also *NR*, 167, 178). In other words, Hobbes took for granted that philosophy should consider what political regime is best, that is, that political philosophy is possible, while he at the same time based his understanding of political phenomena on a particular conception of what a human being is that is neither derived from the ordinary citizen's perspective nor from a consideration of the highest activity possible for human beings.

C7.P27 We may compare this to Strauss's conclusions concerning Machiavelli in his later *Thoughts on Machiavelli*. Machiavelli's so-called “realism,” his consideration of the way political life is actually lived rather than ought to be lived (see chapter 15 of the *Prince*) led him, according to Strauss, to “an enormous simplification and, above all, the appearance of the

discovery of a wholly unsuspected whole continent” (*Machiavelli*, 295), the realm of supposedly true and non-idealized political phenomena. This appearance of novelty, however, is merely a result of the fact that Machiavelli “analyses the political as if it were not ordered toward the supra-political,” to wisdom and contemplation, as did Plato and Aristotle; “in fact,” Strauss further argues, “Machiavelli does not bring to light a single political phenomenon of any fundamental importance which was not fully known to the classics” (*ibid.*). Put differently, by denying the superiority of the contemplative life to the political life, Machiavelli not only simplifies human nature significantly, he also distorts the perspective on political matters in such a way that they appear wholly new; for “all things necessarily appear in a new light if they are seen for the first time in a specifically dimmed light. A stupendous contraction of the horizon appears to Machiavelli and his successors as a wondrous enlargement of the horizon” (*ibid.*). When seen from this perspective, modern political philosophy appears necessarily unradical, due to its methodological biases, because it does not go to the root of things, despite claims to the contrary made by its proponents.

C7.P28

Through this complex dependence on the tradition preceding it, modern political philosophy according to Strauss has a further negative effect, namely, that it maneuvers us into what he sometimes called the second cave, a cave underneath the Platonic cave. In this second cave, we are not just prisoners of ordinary opinions about the world and ourselves that we need to question, the situation the Platonic image of the cave so vividly illustrates. We are also prisoners of sedimented prejudices legitimized by modern science concerning nature, history, and human beings, for instance, that self-preservation and striving for pleasure is what ultimately motivates all political action, rather than the desire for being honored as a virtuous human being.

These sedimented prejudices prevent us from engaging in philosophical inquiry in the natural manner that according to Strauss characterized ancient philosophy.<sup>14</sup>

C7.P29

This understanding of the relation between modern and ancient political philosophy is part of Strauss's phenomenological heritage (see, e.g., *WPP*, 28–9); according to Strauss, ancient political philosophy is in direct contact with the prescientific world of ordinary experience or with “the surface of things,” as Strauss often calls it, that is, with what could be said with a certain right to correspond to Husserl's “life-world,” and part of Strauss's overall project is to trace the way philosophy and with it political philosophy developed out of this prephilosophic perspective on the world.<sup>15</sup> There is thus a close connection between Strauss's project and the project of Husserl's *Crisis*.<sup>16</sup> More important for our present purpose, however, there is also a close connection between Strauss's project and the project of Klein.<sup>17</sup>

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<sup>14</sup> Strauss's conception of a second cave underneath the first Platonic cave is highly complex. A relatively clear presentation of the main lines of this concept can be found in a number of drafts for a letter to Gerhard Krüger (see *Hobbes*, 413–19) as well as in a long footnote in the introduction to *PG* (see pp. 13–14). For further discussion of this concept and its relation to Heidegger, see Velkley (2011, 46–59).

<sup>15</sup> See Velkley (2011, 2–3).

<sup>16</sup> See n. 6 above.

<sup>17</sup> It should be clear from the brief sketch presented here that, when Strauss suggests that the idea of a possible return to or a recovery of classical philosophy unites him with Klein, Strauss does not mean to suggest that they want simply to revive the classical tradition and abandon modernity. As he points out in the introduction to *City and Man*, classical political philosophy cannot give us an answer to present day problems, since modern

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The first thing to note about Klein's engagement with classical thought, in contrast to that of Strauss, is that Klein did not take as his point of departure a problem in contemporary political thought, as Strauss did,<sup>18</sup> but rather a problem in natural science or, more precisely, a problem resulting from the fact that a real understanding between modern physics and philosophy according to Klein had become problematic in the twentieth century (WP, 1–2; see also *Algebra*, 18–19/3–4). Philosophers are, Klein suggested in his early work, generally unable to understand the meaning of the most fundamental concepts of modern physics.<sup>19</sup> But this points to a radical problem, because “mathematical physics is the foundation of our mental and spiritual life” to

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political philosophy “has brought into being a kind of society wholly unknown to the classics.” All the same, he continues, “an adequate understanding of the principles as elaborated by the classics may be the indispensable starting point for an adequate analysis ... of present day society in its peculiar character” (*CM*, 11). Put differently, we may say that it is the modern, and very personal, experience of crisis that leads Strauss to suggest that a recovery of ancient political philosophy is needed, not in order simply to revive ancient philosophy, but in order to gain clarity regarding our own, modern situation.

Ancient philosophy is to Strauss a kind of vantage point from which we may gain a better understanding of problems pertaining to present-day society and from which solutions to contemporary problems may suggest themselves.

<sup>18</sup> But see n. 13 above.

<sup>19</sup> Klein's utterances must be seen against the background of discussions in German philosophy at the beginning of the twentieth century, in particular the discussion whether and how one might justify the so-called “*Geisteswissenschaften*,” that is, humanities, methodically when compared with the so-called exact sciences.

such an extent that “we see the world and *ourselves* in this world at first quite ingenuously as mathematical physics has taught us to see it” (WP, 3). This means “that the direction, the very manner of our questioning is fixed in advance by mathematical physics, and that even a critical attitude towards mathematical physics does not free us from its dominion” (ibid.).

C7.P31 It should be noted at once that the point Klein is making here is not only that we tend to think of the world and ourselves in categories inherited from mathematical physics—although this is undoubtedly also part of the point he is making. As we shall see, Klein is also making the more profound claim that the conceptuality characteristic of mathematical physics, that is, the symbolic character of its basic concepts, comes to determine the basic conceptuality of the “modern world” as a whole and hence our general manner of looking at the world and ourselves, whether we are natural scientists or not (see WP, 27; see also *Algebra*, 66/63). The inability to understand the full meaning of the peculiar conceptuality of mathematical physics therefore entails, according to Klein, an inability to understand the most crucial feature of the modern concept of rationality or the modern mode of thought as such. Klein’s ultimate goal is precisely to illuminate and clarify this feature.

C7.P32 The road leading to such a clarification has two stages. Klein suggests that we must return to the foundation of the modern world—in particular the formulation of the new mathematical sciences in the sixteenth and seventeenth centuries, the sciences upon which modern physics is based (WP, 4); and then, in order to understand the peculiar character of this new science, we need to compare and contrast it with ancient mathematics and, more generally, to contrast modern science with ancient science (WP, 8). It is this two-step clarification that Klein undertakes to perform in his chief written work, *Greek Mathematical Thought and the Origin of Algebra*.

For Klein the most characteristic feature of modern science, and hence of the modern mode of thought, is its conceptuality, that is, the way concepts are generated and employed in it; and in order to make this feature visible, one has to contrast the conceptuality of modern science with that of ancient science (*Algebra*, 123/118).<sup>20</sup> Klein sets out to solve this task by focusing on

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<sup>20</sup> As Klein points out, this is a daunting task given the fact that we are accustomed to understand ancient science from our own conceptual level. It is not impossible, however. On the one hand, Klein claims that the ancient mode of thought is not wholly alien to us, since our concepts are related to the Greek concepts “in a specific, ruptured” manner (*Algebra*, 123/118). Our concepts depend on the Greek concepts in a manner that only reveal their origin partially or in a disrupted manner. But this dependence nevertheless means that we are able to glimpse the original Greek concepts through their distorted, modern mirror images. Klein is quite clear on the point that gaining such a glimpse is difficult. For this task to succeed, we need constantly to keep in mind the different situations in which “our own science and that of the Greeks” arose. Greek science, according to Klein, *stands in opposition* to a prescientific, practically engaged manner of being related to the world—Klein may have the account of *epistēmē* found at the beginning of Aristotle’s *Metaphysics* in mind. At the same time, however, it *emerges* from this way of being related to the world and thus retains traces of it in its defining features (*Algebra*, 123/119). In contrast, modern science emerges as a reaction to the old science, as a rejection of it (*Algebra*, 124/119). In this process, the new science took over most of the concepts central to the old science, but it reinterpreted them, in particular by understanding their conceptuality differently. As should be clear, this account of the emergence of the new science is parallel to that offered by Strauss; Strauss, as far as I am

two ancient mathematical disciplines, *arithmētikē* and *logistikē*, and on modern algebra.

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Connected herewith, he concentrates on two concepts central to these disciplines, the Greek concept of *arithmos* that Klein translates as *Anzahl* and emphasizes must be understood always as assemblages, or specific amounts, of entities, and the modern concept of number.

C7.P34 Klein chooses this strategy partly because these mathematical arts and the way they conceive of numbers are particularly apt for illustrating the difference between the conceptuality characterizing modern and ancient thought (see *Algebra*, 20/4–5), although he also illustrates this difference by contrasting ancient geometry with Cartesian, analytical geometry and their differing conceptions of extension (WP, 12–21). Another reason for focusing specifically on these mathematical arts, however, and one that is perhaps even more important, is that they are regarded by both the ancients and the moderns as constituting a kind of foundation for all knowledge (WP, 11). But the difference between the way this foundation is understood by ancients and moderns at the same time illustrates a significant difference between the way the early moderns and the ancients understood what both agreed was the highest kind of knowledge, philosophy, and, more generally, between an ancient and a modern conception of rationality (see, e.g., WP, 27).

C7.P35 Klein's overall claim concerning the concepts of ancient science in general, if not of first philosophy (see MR, 60), is that they "intend the individual objects themselves," (WP, 17), a claim that, to a certain extent, resembles Strauss's claims about the way ancient political philosophy is related to political life. In accordance with this basic conceptuality, any *arithmos*, any "number"

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aware, develops his account while working on his book on Hobbes in the early 1930s, at the same time that Klein is working on his articles on Greek mathematics; it is likely that they have developed this account in common, inspired by Heidegger.



concept, thus always intends “a definite number of definite things,” (Algebra, 22/7; see also MR, 62) be they apples, houses, or ideal unities. “Seven” means seven something; “ten” means ten something. The same holds true for geometrical concepts, such as triangles or cones: when an ancient geometer solves a geometrical problem, the model he uses refers, not to extended space or triangles and cones in general, but to specific, if ideal, triangles and cones, with specific properties (WP, 16–7).

C7.P36

Klein’s primary way of demonstrating that *arithmos* in ancient Greek mathematics means something very different from our concept of “number,” namely a specific number of entities, is to point out that the mathematical disciplines that treat of the *arithmoi*, *arithmētikē* and *logistikē*,—often translated as “arithmetic” and “the art of calculation” or “number reasoning”—develop directly out of our natural, prescientific abilities to count and calculate things (Algebra, 30–2/18–20, 55–6/48–51, 66/63, 125/120), and that their “objects,” the *arithmoi*, must be understood as “results” of these abilities. If we follow Klein, who here relies on the way *arithmētikē* and *logistikē* are discussed in Plato, we may say that we are able, from early on and without any specific scientific training, to count that there are, say, three apples on the table, that there are six apples in my bag and twelve apples in the larder. The word that we then pronounce last when we count gives us the counting number or *Anzahl*, the *arithmos*, of the things involved (cf. Algebra, 53/46). Likewise, we learn, quite naturally and from early on, that, say, six things stand in the relation 2:1 to three things and in the relation 1:2 to twelve things. It is precisely out of this ordinary, everyday ability to count and “calculate” things in the world, an ability that includes prescientific knowledge about the properties certain amounts of entities have, and how certain amounts are related to other amounts, that the two disciplines treating of the different types of numbers and their interrelations develop.

C7.P37

However, they develop into real scientific disciplines only when it is realized that this everyday ability to count and calculate in fact presupposes an ability to count and calculate that has pure units, available only to the intellect, as its proper objects (Algebra, 34/22–3). This is what made it possible to develop a specific science concerned with the various types of amounts, the different kinds of *arithmoi*, namely, *arithmētikē*, and a science concerned with the relations between these, *logistikē* (Algebra, 59–63/54–9). But even though *logistikē* and *arithmētikē* as scientific disciplines are concerned with pure, intelligible units, the *arithmoi* they treat of are still specific *amounts* of such pure units (ibid.).

C7.P38

In contrast, Klein argues, the concepts central to modern science do not directly intend objects or entities but refer instead to other concepts (cf. WP, 18). Klein illustrates this difference by looking at the modern equivalent to *arithmos*: “number.” Whereas an *arithmos* always signifies a specific amount of entities, the modern concept of “number” signifies, Klein proposes, “general magnitude,” (Algebra, 127/122), and “general magnitude” no longer signifies a *specific* number of things, but rather “the *concept* of the number as a multitude of units” (ibid.). Whereas what is signified by the ancient concept of *arithmos* has a mode of being radically different from the concept signifying it—that of individual entities, even if they are purely intelligible entities, and not that of concepts—the modern concept of “number” and what it signifies, “general magnitude,” has the same mode of being, that of concepts (Algebra, 200/192). Nevertheless, modern science treats “general magnitude” as if it were an object, or, rather, it understands the concept of “number” as a concept that directly intends an object, “general magnitude,” and overlooks that “general magnitude” is no object at all. Thereby, Klein claims, modern science comes to “determine its objects through a reflection upon the way in which these objects become accessible in a general procedure” (Algebra, 127/122). To put this point differently, instead of

deciding on the being of something by considering the object under consideration in its own right, as ancient science did, modern science decides on the being of something by considering how it is known to us. It thereby comes to reify its own procedure, as it were.

C7.P39

This shift is of tremendous importance, according to Klein, for it is not just the modern concept of number that has this merely symbolic character, that refers only to other concepts and not to distinct objects.<sup>21</sup> This manner of understanding concepts and the objects referred to by concepts characterizes modern scientific thought in general. We may illustrate this shift between the ancient and the modern way of handling concepts by another example: “7 feet” in the expression “This column is 7 feet high” is a concept that points to a specific entity that we claim has a specific extension, namely 7 feet. This is the kind of concept found in ancient science, with the exception of first philosophy, according to Klein. Descartes’s concept of *extensio*, on the other hand, identifies “the extendedness of extension with extension itself” (WP, 21); in other words, Descartes does not see “extension” as an abstract concept that always refers to specific extensions of specific objects, but rather sees it as a concept designating a general quantity, namely, the alterable extension of things in general, which itself is an abstract concept (WP, 20). Through this interpretation of extension, Descartes initiates a way of looking at the world where the world is no longer understood as the whole or the totality of beings or entities with specific qualities, but rather as pure, general extendedness (see WP, 17–21 and MR, 60–3), a mere image of our own way of understanding things in the world.

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<sup>21</sup> For further discussion of the connection between “symbolic” concepts and numbers, see ch. 8,

pp. [232–3](#), in this anthology.

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C7.P40

The consequences of the conceptual shift characteristic of modern science are therefore, according to Klein, not limited to natural science.<sup>22</sup> The ultimate consequence is that we end up with a new conception of rationality, in accordance with which we “approach the world not directly but by means of concepts which are abstractions of abstractions and which at the same time we interpret as being in direct contact with the world” (MR, 63). It is for this reason that Klein suggests that, in the modern world made possible by mathematical physics, “our own life does not belong to us. We appear to be in the most direct contact with the world around us, but in reality the vast machinery of our society permits us to perceive the world only through generally accepted views. The directness of our contact with the world is of the same symbolic character as the concepts we use to understand it” (MR, 64). This explains, according to Klein, why the modern social and economic system called capitalism ends up acquiring “such symbolic unreality” (ibid.), a state of affairs, he suggests, that is something one may come to realize by comparing modern science with ancient science.

C7.S3

### 3 Klein and Plato

C7.P41

Klein was not only interested in differences between ancient and modern science, however, but also in the difference between ancient sciences or arts and philosophy, especially as this comes to expression in Plato. In Plato, the disciplines of *logistikē* and *arithmētikē* discussed above are regarded as crucial to rational thought as such. They form part the curriculum of the future philosopher-rulers discussed in the *Republic* (*Resp.* 525a10–531c4), and in both the *Republic* and the *Philebus* all other arts and sciences are said to depend on or make use of them (*Resp.* 522c1–

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<sup>22</sup> It is illuminating to compare Klein’s analysis of this shift with Husserl’s discussion of Galileo Galilei in *Crisis* (§ 9).

8; *Phlb.* 55e–56d). Nevertheless, Plato clearly indicates that the various mathematical sciences differ from the science of dialectic; they are merely the prelude to the real song, that is, to dialectic, as Socrates points out in *Republic*, Book 7 (531d6–8). Moreover, in consequence of the way mathematicians understand intelligible reality and being, or rather, of the fact that their efforts are not primarily directed at disclosing being, mathematicians are said only to dream about being, in contrast to those who correctly distinguish the intelligible and the sensible, without confusing one with the other, who are described as living a waking life (*Resp.* 533b5–c3, 476c7–d2). A major section of Klein’s book on ancient mathematics is devoted explicitly to analyzing this difference (*Algebra*, 71–95/69–99), an analysis he then repeats in a slightly different, and more accessible, manner in his commentary to the *Meno* (*Meno*, 112–25).

C7.P42

The most striking feature of this analysis is perhaps Klein’s radical reinterpretation of Platonic ontology and the meaning of forms. Klein does not share a common view of Plato’s philosophy according to which certain so-called ideas or forms constitute a realm separated from the sensible world, awareness of which is limited to the philosophers. Instead, Klein insists, the distinction between sensible and intelligible beings, commonly held to be peculiar to Plato, is a distinction made quite naturally by all human beings.<sup>23</sup> The distinction is made implicitly by our discursive reason or *dianoia* whenever we seek to gain clarity concerning some sensible matter that stands in need of clarification (*Meno*, 117–19). In such situations, our thought automatically seeks, and indeed finds, pure, intelligible objects “beneath” or “behind” the sensible objects. This activity of our *dianoia* is particularly easy to identify, Klein suggests, when it comes to the

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<sup>23</sup> Both Husserl and Heidegger advance similar claims; for further discussion of their view

concerning the so-called “Platonic Forms,” see ch. 1, pp. 43, and ch. 4, pp. 148–9, in this volume.

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mathematical disciplines (see *Algebra*, 55/49, 72/71)—when we calculate, we in fact presuppose pure units that we calculate with, and when we perform geometrical proofs, it is ideal, pure triangles and the like we intend, not their sensible counterparts. But, Klein insists, “the range of [this] activity far transcends the limits of those disciplines” (*Meno*, 119). In the *Meno* commentary, Klein terms this activity “dianoetic *eikasia*,” an activity where we regard or understand a sensible entity as a mere image of a pure, intelligible being, a way of looking at sensible beings that resembles the way we may regard a reflection of something in a mirror or a pool of water as a mere image of the sensible original it mirrors. If Platonism is the simple positioning of eternal, pure, and intelligible forms as the foundation for sensible entities, the infamous doubling of the world, then it is ordinary human reason, rather than Plato, that turns us into Platonists.

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C7.P43

To repeat, according to Klein it is not just when we learn to count and calculate that our *dianoia* draws the implicit distinction between sensible objects and intelligible looks or forms. Rather, whenever we speak about something, we “always suppose something ‘other’ to underlie the objects we perceive, namely *noēta*; these, albeit appearing in the mirror of our senses, are the true objects of our study, though we may not even be aware of making such ‘suppositions’” (*Algebra* 74/73). Accordingly, Klein claims, the procedure of using hypotheses when investigating something, discussed in the *Phaedo* and the *Republic*, “is *not* a specifically ‘scientific’ method but is that original attitude of human reflection prior to science which is revealed directly in speech as it exhibits and judges things” (ibid.).<sup>24</sup> Socrates’ “second sailing” in the *Phaedo* thus merely helps us return to an ordinary, non-scientific perspective on the world.

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<sup>24</sup> Klein bases his claim partly on the suggestion in the *Sophist* that *dianoia* and *logos* are the same (see *Soph.* 263e), a suggestion he rightly points out is also found in the *Theaetetus*

C7.P44

Moreover, Klein claims, our natural *dianoia* not only “hypothesizes” intelligible looks or forms by positing them as the foundation for the visible entities we try to gain clarity about. It also quite naturally compares these looks or forms with each other, and differentiates them, whenever it finds the visible matter it tries to reach clarity about puzzling, such as the visible Socrates who appears both large and small when compared to Simmias and Cebes, respectively (*Phd.* 102b-e). In such cases, our *dianoia* is led to investigate what smallness and largeness are, by comparing each to the other (*Algebra*, 75/74–5). But to investigate what something is by *differentiating* this something from—and *relating* it to—something else, is, according to Klein, exactly what we do when we count and calculate. According to Klein, this explains why Plato accords the two mathematical sciences treating of these activities so central a place in arts and sciences in general. In fact, these simple activities are a simpler version of two basic procedures of dialectic: collection and division.

C7.P45

Klein thus claims that even in our natural, prescientific mode of being, *dianoia* implicitly draws a distinction between sensible and intelligible beings, and further that our *dianoia* may be aroused to start comparing or relating the *noēta*, the intelligible beings, to each other quite “naturally” when we encounter something sensible that puzzles us, and that the different arts and sciences grow out of these natural activities when the attempt is made to “make completely explicit what the *dianoia* has in effect been accomplishing *prior to* any science” (*Algebra*, 74/73). In this sense, the various arts and sciences are a continuation of our “natural” *dianoia*,

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(see *Tht.* 189e, 206c–d, 208c), and partly on the interpretation of Socrates’ famous “second sailing” that his friend Hans-Georg Gadamer had developed in his doctoral dissertation (see *PdE*, 52–4/70–3). For further discussion of Gadamer’s understanding of the role of platonic forms, see ch. 6 in this volume, esp. pp. [188–9](#).

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and their primary purpose remains the same as that of our “prescientific” *dianoia*, namely, to help us gain clarity concerning “the vast and diffuse jungle of the visible world,” a task they accomplish through the activity of making this world “depend on a plurality of more ‘precise’ *noēta*” (*Meno*, 122). But, Klein further claims—and here he is drawing heavily on the image of the divided line (*Resp.* 509d1–511e5)—this activity “is not able to give an intelligible account of those *noēta* themselves” (*ibid.*). For this can be done “only by reversing the direction of our search, by turning our attention away from the visible things toward the source or sources from which our *dianoia* derives its clarifying function” (*ibid.*).

C7.P46

This reversal is what constitutes the difference between the ordinary sciences and arts and the science of dialectic. Dialectic, in contrast to ordinary sciences and arts, seeks to give an account of the *noēta* on which our ordinary understanding of the world depends and does this by reversing the direction of our intellectual gaze. I will not attempt to do justice to Klein’s complicated account of this science. It will here suffice to say that he develops his account through an ingenious interpretation of Plato’s *Sophist*, developed primarily in his work on Greek mathematics and modern algebra (*Algebra*, 81–95/71–83),<sup>25</sup> and that his overall claim is that our natural and technical use of *dianoia* that revolves around counting and calculation, that is, “discriminating and relating” (see *Meno*, 117), may be said to imitate “the ‘dialectical’ dividing and collecting which the *dianoia* undertakes on the higher level” (*Meno*, 124). These collections and divisions treat of “assemblages of intelligible units” (*ibid.*), just as the sciences of *arithmētikē* and *logistikē* do. The crucial difference, however, is that the units treated by dialectic are not like the units treated by the mathematical sciences. For, whereas the units of

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<sup>25</sup> For further discussion of Klein’s interpretation of the *Sophist*, see ch. 8 in this volume.

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mathematical *arithmoi* are all identical, the “eidetic” *arithmoi* treated by dialectic are rather the intelligible looks commonly referred to as “Platonic forms,” units that are qualitatively different from each other (Algebra, 86/89). *Dianoia* thus plays a central role in dialectic as well, according to Klein, since it investigates the intelligible assemblages of the forms through collection and division, for instance by looking at the various virtues in their relation to, and difference from, each other. At the same time, however, it reaches its limit in dialectic, since the manner of counting characteristic of *dianoia* in the end proves inadequate for truly grasping the ontological foundation of our visible world. According to Klein, the attempt to reach an understanding of this foundation is the ultimate goal of ancient philosophy and the highest unfolding of human rationality, understood as *nous*.<sup>26</sup> So while mathematics is central to the ancient account of science and art, it is held to be the key to ontology, and to the mode of being of reality, neither by Aristotle nor by Plato.

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C7.P47

What is it, then, that one may learn by attempting to recover ancient modes of thought in our modern world? According to Klein, this daunting task is worth attempting since it may help us gain a better understanding of our “modern cave,” that is, of our implicit understanding of human beings and the world they inhabit, an understanding stemming from the modern symbolic mathematical mode of thinking. At the same time, it may help us gain a better understanding of what rationalism or rationality could mean. According to the ancient, or at least Platonic, way of conceptualizing our rationality in its attempt to understand both us and the world we inhabit, we

<sup>26</sup> In his introductory reading of Aristotle in the 1924–5 lecture course on Plato’s *Sophist*,

Heidegger distinguishes between a discursive and a non-discursive use of *nous* (see GA 19, 179–80/123–4); for discussion of this distinction, see ch. 3 in this volume, esp. pp.

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should distinguish between three levels of rational understanding, namely, our everyday engagement with the world, the various arts and sciences that arise from this engagement, and the striving for a comprehensive understanding of the whole that is philosophy. According to Plato, the latter presupposes a radical change “involving a total turnabout, a total conversion of the entire soul,” (see *Resp.* 518c–d2) and this means, according to Klein, that philosophy “is perpetually, and inevitably, in conflict with the tendency of our natural and technical *dianoia* to be turned toward the familiar visible world and to be immersed in it” (*Meno*, 124). For this reason, he further claims, the “various *tekhnai* enhanced by their expertness tend to thwart that impulse” (124–5). From Plato we can therefore learn that philosophy should be wary of assimilating itself to ordinary, world-directed sciences. If we become too immersed in the sensible world, the tendency to question radically, and to go to the roots of our experience, that is, to philosophize, all too easily disappears.

C7.P48

It must also be emphasized, however, that, in antiquity, no art or science in the ordinary sense claimed to give *the* comprehensive view of the world. This was the role accorded to philosophy. In modern times, however, mathematical physics claims, or seems to claim, to be able to give so comprehensive a view. According to Klein, the ideals of a universal and comprehensive science, the *mathesis universalis*, which underlie modern physics, “dominate our entire manner of thinking” to such an extent that “our life ... even our most intimate life, is completely conditioned by social and economic necessities which are alien to ourselves and which we nevertheless accept as the true expression of ourselves” (MR, 64). For this reason, Klein suggests, we modern human beings have once again to examine our assumptions in order to “discover at what point our thinking and willing enter the mechanism and automatism of our political practices or are subjugated by them,” and, “once again, we have to picture ourselves in a

cave, perhaps a deeper and vaster one than our forefathers ever imagined” (PF, 126). The education required to retain a level of freedom in this new cave is perhaps more extensive than the one envisioned by Plato. But the study of Plato may be one way to start on the road out of the cave of modern presuppositions. If read intelligently, Plato may lead us to question, and to question radically, and thus make us able to appraise, the assumptions dominating our cave.

## C7.S4 4 Acknowledgments

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## C7.S5 References

### Works by [Plato](#)

C7.P51 *Phd.* *Phaedo*. In Duke et al. 1995.

C7.P52 *Phlb.* *Philebus*. In *Platonis Opera*, edited by John Burnet, vol. 2. Oxford Classical Texts. Oxford: Clarendon Press, 1901.

C7.P53 *Resp.* *Platonis Respublica [Republic]*. Edited by S. R. Slings. Oxford Classical Texts. Oxford: Clarendon Press, 2003.

C7.P54 *Soph.* *Sophista [Sophist]*. In Duke et al. 1995.

C7.P55 *Th.* *Theaetetus*. In Duke et al. 1995.

### [Works by Hans-Georg Gadamer](#)

C7.P56 *PdE.* *Platos dialektische Ethik*. In *Gesammelte Werke*, vol. 5, 3–163. Tübingen: Mohr Siebeck, 1999. First published 1931. Translated into English by Robert M. Wallace as *Plato’s Dialectical Ethics: Phenomenological Interpretations Relating to the “Philebus.”* New Haven: Yale University Press, 1991.

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## Works by Martin Heidegger

- C7.P57 GA 14 *Zur Sache des Denkens*. Edited by Friedrich-Wilhelm von Herrmann. Gesamtausgabe 14. Frankfurt am Main: Vittorio Klostermann, 2007. Translated into English by Joan Stambaugh as *On Time and Being*. New York: Harper & Row, 1972.
- C7.P58 GA 17 *Einführung in die phänomenologische Forschung*. Edited by Friedrich-Wilhelm von Herrmann. Gesamtausgabe 17. Frankfurt am Main: Vittorio Klostermann, 1994. Translated into English by Daniel O. Dahlstrom as *Introduction to Phenomenological Research*. Bloomington: Indiana University Press, 2005.
- C7.P59 GA 19 *Platon: Sophistes*. Edited by Ingeborg Schüßler. Gesamtausgabe 19. Frankfurt am Main: Vittorio Klostermann, 1992. Translated into English by Richard Rojcewicz and André Schuwer as *Plato's "Sophist."* Bloomington: Indiana University Press, 1997.
- C7.P60 GA 20 *Prolegomena zur Geschichte des Zeitbegriffs*. Edited by Petra Jaeger. Gesamtausgabe 20. 3. Aufl. Frankfurt am Main: Vittorio Klostermann, 1994. Translated into English by Theodore Kisiel as *History of the Concept of Time*. Bloomington: Indiana University Press, 1985.
- C7.P61 GA 24 *Die Grundprobleme der Phänomenologie*. Edited by Friedrich-Wilhelm von Herrmann. Gesamtausgabe 24. 3. Aufl. Frankfurt am Main: Vittorio Klostermann, 1997. Translated into English by Albert Hofstadter as *The Basic Problems of Phenomenology*. Rev. ed. Bloomington: Indiana University Press, 1988.
- C7.P62 GA 61 *Phänomenologische Interpretationen zu Aristoteles: Einführung in die phänomenologische Forschung*. Edited by Walter Bröcker and Käte Bröcker-Oltmanns. Gesamtausgabe 61. 2. Aufl. Frankfurt am Main: Vittorio Klostermann, 1994. Translated into English by Richard Rojcewicz as *Phenomenological Interpretations of Aristotle:*

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*Initiation into Phenomenological Research*. Bloomington: Indiana University Press, 2008.

C7.P63 GA 62 *Phänomenologische Interpretationen ausgewählter Abhandlungen des Aristoteles zu Ontologie und Logik*. Edited by Günther Neumann. Gesamtausgabe 62. Frankfurt am Main: Vittorio Klostermann, 2005.

C7.P64 SZ *Sein und Zeit*. 17. Aufl. Tübingen: Max Niemeyer Verlag, 1993. Translated into English by John Macquarrie and Edward Robinson as *Being and Time*. Malden, MA: Blackwell Publishing, 1962.

Formatted: German

#### Works by Jacob Klein

C7.P65 Algebra “Die griechische Logistik und die Entstehung der Algebra.” Pts. 1 and 2. *Quellen und Studien zur Geschichte der Mathematik, Astronomie und Physik*, Abt. B, *Studien*, 3, no. 1 (1934): 18–105; no. 2 (1936): 122–235. Translated by Eva Brann as *Greek Mathematical Thought and the Origin of Algebra*. Cambridge, MA: M.I.T. Press, 1968. Reprint, New York: Dover, 1992.

C7.P66 HLA “History and the Liberal Arts.” In *LE*, 127–38.

C7.P67 ILE “The Idea of Liberal Education.” In *LE*, 157–70. First published 1960.

C7.P68 LE *Lectures and Essays*. Edited by Robert B. Williamson and Elliott Zuckerman. Annapolis, MD: St. John’s College Press, 1985.

C7.P69 *Meno* *A Commentary on Plato’s Meno*. Chapel Hill: University of North Carolina Press, 1965.

C7.P70 MR “Modern Rationalism.” In *LE*, 53–64.

C7.P71 PF “The Problem of Freedom.” In *LE*, 117–26. First published 1969.

C7.P72 PhHS “Phenomenology and the History of Science.” In *LE*, 65–84. First published 1940.

C7.P73 WP “The World of Physics and the ‘Natural’ World.” In *LE*, 1–34.

#### Works by Leo Strauss

C7.P74 CM *The City and Man*. Charlottesville: University Press of Virginia, 1964. Reprint, Chicago: University of Chicago Press, 1978.

C7.P75 Hobbes *Hobbes’ politische Wissenschaft und zugehörige Schriften—Briefe*. Gesammelte Schriften 3. 2. Aufl. Weimar: Verlag J. B. Metzler, 2008. Translated into English by Elsa M. Sinclair as *The Political Philosophy of Hobbes: Its Basis and Its Genesis*. Chicago: University of Chicago Press, 1952.

C7.P76 Machiavelli *Thoughts on Machiavelli*. Chicago: University of Chicago Press, 1958.

C7.P77 Modernity *Jewish Philosophy and the Crisis of Modernity*. Albany: State University of New York Press, 1997.

C7.P78 NR *Natural Right and History*. Chicago: University of Chicago Press. 1953.

C7.P79 PG *Philosophie und Gesetz—Frühe Schriften*. Gesammelte Schriften 2. 2. Aufl. Weimar: Verlag J. B. Metzler. 2013.

C7.P80 WPP *What is Political Philosophy?* Chicago: University of Chicago Press, 1988.

#### Other Works Cited

Brann, Eva. 2011. “Glimpses of Leo Strauss, Jacob Klein, and St. John’s College.” Interview by George Anastaplo. *George Anastaplo’s Blog*, March 6.

<https://anastaplo.wordpress.com/2011/03/06/glimpses-of-leo-strauss-jacob-klein-and-st-johns-college/>.

Cosgrove, Joseph. 2008. “Husserl, Jacob Klein, and Symbolic Nature.” *Graduate Faculty Philosophy Journal* 29 (1): 227–51.

- Duke, E. A., W. F. Hicken, W. S. M. Nicoll, D. B. Robinson, and J. C. G. Strachan, eds. 1995. *Platonis Opera*. Vol. 1. Oxford Classical Texts. Oxford: Clarendon Press.
- Gonzalez, Francisco. 2009. *Plato and Heidegger: A Question of Dialogue*. University Park: Pennsylvania State University Press.
- Hopkins, Burt C. 2003. "Crisis, History, and Husserl's Phenomenological Project of Desedimenting the Formalization of Meaning: Jacob Klein's Contribution." *Graduate Faculty Philosophy Journal* 24 (1): 75–102.
- Hopkins, Burt C. 2011. *The Origin of the Logic of Symbolic Mathematics*. Bloomington: Indiana University Press.
- Hopkins, Burt C. 2012. "The Philosophical Achievement of Jacob Klein." *New Yearbook for Phenomenology and Phenomenological Philosophy* 11: 282–96.
- Kates, Joshua. 2004. "Philosophy First, Last, and Counting: Edmund Husserl, Jacob Klein, and Plato's Arithmological Εἶδη." *Graduate Faculty Philosophy Journal* 25 (1): 65–97.
- Larsen, Jens Kristian. 2016. "Heidegger and Plato on Sophistry and Philosophy." In *Sophistes: Plato's Dialogue and Heidegger's Lectures in Marburg (1924–25)*, edited by Diego De Brasi and Marko J. Fuchs, 28–60. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Velkley, Richard L. 2011. *Heidegger, Strauss, and the Premises of Philosophy: On Original Forgetting*. Chicago: Chicago University Press.
- Volpi, Franco. 1992. "Dasein as Praxis: The Heideggerian Assimilation of the Radicalization of the Practical Philosophy of Aristotle." In *Martin Heidegger: Critical Assessments*, edited by Christopher E. Macann, vol. 2, 90–129. London: Routledge.

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Volpi, Franco. 2007. "Der Status der existenzialen Analytik (§§9–13)." In *Klassiker Auslegen*,  
bd. 25: *Martin Heidegger—Sein und Zeit*, edited by Thomas Rentsch, 29–50. Berlin:  
Akademie Verlag.

Rosen, Stanley. 1983. *Plato's Sophist*. New Haven: Yale University Press.

Zuckert, Catherine H., and Michael P. Zuckert. 2014. *Leo Strauss and the Problem of Political  
Philosophy*. Chicago: Chicago University Press.

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