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Do Ancient Philosophies Explain Modern Psychologies?

Amritpal Singh and Daniel Casasanto

Department of Psychology, Cornell University

People from Western and East Asian cultures exhibit systematic differences in perception, attention, and cognition. Why do people from these cultures think differently? According to an influential proposal, psychological differences between Westerners and East Asians reflect, and may derive from, differences between ancient Greek and ancient Chinese philosophies. Here, we question this proposal and suggest a different relationship between ancient philosophies and modern psychologies. We argue that the way ancient Greek and Chinese philosophies are represented in the cultural psychology literature is skewed, highlighting differences between ancient Greek and Chinese beliefs and obscuring similarities. We review these ancient traditions and conclude that ancient Greek and Chinese philosophies do not predict the cross-cultural differences found in modern psychologies. Rather than paralleling modern psychologies, ancient East Asian and Greek philosophical traditions embraced ways of thinking that are stereotypically associated with both Eastern and Western mindsets. We propose an explanation for why spurious parallels between ancient philosophies and modern psychologies may have been drawn and how misinterpretations of the ancient traditions may have occurred: Instead of ancient philosophies helping us to understand modern psychologies, modern mindsets act as lenses through which we view the past and which distort contemporary views of ancient philosophies.

Public Significance Statement

According to a widespread view in cultural psychology, psychological differences between Western and East Asian people reflect, and may derive from, differences between ancient Greek and Chinese philosophies. Here, we critique this view using an interdisciplinary approach and conclude that these ancient philosophies neither predict nor explain modern cross-cultural psychological differences. Rather, we argue that modern views of cultural traditions are likely distorted by contemporary social and psychological influences. We describe a few of the influences we believe scholars should be cautious of when analyzing the content of historical traditions.

Keywords: culture, philosophy, psychological mindset, cultural psychology, cross-cultural differences

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Amritpal Singh  <https://orcid.org/0000-0003-1024-356X>

Daniel Casasanto  <https://orcid.org/0000-0002-2021-1580>

Amritpal Singh is now at the Department of Psychology, Rutgers University.

Amritpal Singh is now at the Rutgers Center for Cognitive Science, Rutgers University.

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Correspondence concerning this article should be addressed to Amritpal Singh, Department of Psychology, Rutgers University, or Rutgers Center for Cognitive Science, Rutgers University, 152 Frelinghuysen Road, Piscataway, NJ 08854, United States. Email: as3695@cornell.edu

People from Western and East Asian cultures differ along cognitive, perceptual, and social dimensions (Markus & Conner, 2014; Nisbett, 2003; Nisbett et al., 2001). Compared with East Asians, members of Western cultures (often American, Canadian, and Western European populations) are more likely to think of the self as independent from others. They have a more analytic style of cognition and perception, meaning that they tend to focus on decontextualized objects and on rule-based categories (Nisbett et al., 2001). Compared to Westerners, East Asian people (often Chinese, Japanese, and South Korean populations) are more likely to view the self as interdependent with others. They have a more holistic style of cognition and perception, meaning that they attend more than their Western counterparts to the relationships among objects and to the contexts in which objects and events are embedded (Nisbett et al., 2001; see also Chua et al., 2005; Henrich et al., 2010; Ji et al., 2000; Markus & Conner, 2014; Markus & Kitayama, 1991; Masuda & Nisbett, 2001; Masuda et al., 2008; McKone et al., 2010; Nisbett, 2003; Nisbett & Masuda, 2003; Nisbett et al., 2001; Wang, 2013).¹

Why do members of these cultures think about the world in the ways that they do? According to an influential proposal, habits of cognition and perception found in today's Westerners and East Asians can be traced to ancient philosophical traditions. On this view, observable psychological differences have resulted, in part, from Western societies being "influenced by ancient Greek thought" and East Asian societies being "influenced by ancient Chinese thought" (Nisbett et al., 2001, p. 292; see also pp. 295–296, 301; Gutches & Sekuler, 2019; Nisbett, 2003; Nisbett & Masuda, 2003; Norenzayan et al., 2002; Peng & Nisbett, 1999; Peng et al., 2006; Riemer et al., 2014; Spencer-Rodgers et al., 2004, 2010; Yama & Zakaria, 2019).

This proposal has been put forth in the cultural psychology literature in both weaker and stronger forms, with the weaker form suggesting a *predictive relationship* between ancient philosophies and modern minds and the stronger form suggesting a *causal relationship*. Table 1 provides examples of the weaker and stronger relations that cultural psychologists have posited over the last few decades. In the weaker form of the view, differences between modern Westerners' and East Asians' performance on psychological tasks can be predicted on the basis of differences

between ancient Greek and ancient Chinese philosophical traditions. In the stronger form, differences between modern Westerners' and East Asians' mindsets not only reflect ancient philosophical traditions but have also been shaped by them, at least in part. Importantly, cultural psychologists note that the ancient philosophers in each tradition were to some extent *products* of their cultures, as well as *progenitors* of them (Nisbett, 2003; Nisbett et al., 2001). Rather than creating all cultural peculiarities *de novo*, ancient philosophers "served to entrench habits of thought that were already characteristic of their societies" (Nisbett, 2003, p. xi). We note, however, that viewing the most influential ancient philosophers as simply products or reflections of their respective cultures is likely reductive: It is unlikely that they were simply articulating things everyone in their culture already believed. Their roles in their cultural traditions suggest that they advanced new ideas. Additional support for this assertion comes from the fact that some philosophers' ideas met with strong resistance and persecution for their society (e.g., Socrates' execution for advancing heretical and corrupting ideas suggests that his views were not considered normative and likely challenged common views, values, and intuitions of his context).

The strong form of the view has often been described as a candidate explanation for how cultural groups have come to differ from one another, although the mechanistic details of this explanation are left unspecified beyond pointing out putative similarities between ancient traditions and modern cultural mindsets. Not all cultural psychologists embrace these views, nor is a connection between philosophical traditions and modern psychologies the only theory of how cross-cultural differences in mindsets arise; many of the authors who have endorsed even the strong relation between ancient philosophies and modern psychologies have also described other hypotheses to explain psychological differences across cultures (see "What Causes Psychological Differences

¹ We use field-standard working definitions of constructs like analytic and holistic thinking, independence and interdependence, and individualism and collectivism. We use these terms here in the manner of the authors whose views we engage with in this article. However, some of these constructs' definitions have been debated almost since their inception (e.g., for collectivism, see Brewer & Gardner, 1996; Markus & Kitayama, 1991; Talhelm, 2019).

Table 1
Quotations From Cultural Psychology Texts Implying Predictive or Causal Relationships Between Ancient Philosophies and Modern Psychologies

No.	Source	Quotation	View described
1	Norenzayan (1999)	This historical divergence, and its <i>likely persistence in contemporary cultural groups</i> , provide an opportunity to examine how socially transmitted, culture-specific intellectual traditions are <i>reproduced</i> in the actual thought processes of people exposed to them (emphasis added, p. 2).	Weak
2	Peng and Nisbett (1999)	We believe such fundamental differences in ontology and epistemology <i>lead to</i> substantial cognitive differences. We expected that Western stances for dealing with contradiction would be consistent with Westerners’ intuitive understanding of the law of noncontradiction, whereas the Chinese stances for dealing with contradiction would be based on naive dialecticism (emphasis added, p. 744).	Strong
3		We have found empirical support for claims long made by scholars in a variety of fields about the different intellectual traditions of East and West. The evidence provides confirmation from the psychological laboratory to support the historical, ethnographic, and philosophical work suggesting that there are two very different cognitive traditions in the East and West (regarding the treatment of seeming contradictions; emphasis added, p. 750).	Weak
4	Nisbett et al. (2001)	We next present a general proposal concerning the relation between social factors and cognition based on an examination of social life and cognitive procedures in the ancient world, <i>deriving a number of quite specific predictions</i> from that formulation (emphasis added, p. 292).	Weak
5		We then present a review of evidence regarding these predictions that comes mostly from our recent research comparing modern individuals raised in societies <i>influenced</i> by ancient Chinese thought with people raised in societies <i>influenced</i> by ancient Greek thought. This research shows that, to a remarkable extent, the social and cognitive differences that scholars have reported about ancient China and Greece <i>find their counterparts</i> among contemporary peoples. ... Finally, we speculate on the origins of differences in systems of thought, sketch an analysis of the factors that might <i>sustain</i> “sociocognitive homeostatic systems” over millennia, and present a consideration of the implications of our findings for claims about cognitive universality and for the traditional distinction between cognitive content and cognitive process (emphasis added, p. 292).	Mixed

(table continues)

Table 1 (continued)

No.	Source	Quotation	View described
6		If the social differences have persisted, and if we are correct in believing that social factors influence metaphysics, epistemology, and ultimately cognitive processes, then <i>several interrelated predictions can be made</i> concerning cognitive differences between contemporary societies that have been <i>influenced</i> by China and those that have been <i>influenced</i> by Greece (emphasis added, pp. 295–296).	Mixed
7		If the scant role played by logic in the history of East Asian mathematics, science, and philosophy <i>has resonance</i> in the thought processes of ordinary people today, and <i>if the sympathy for formal approaches remains</i> in the West, East Asians might be expected to rely more on prior beliefs and experience-based strategies when evaluating the convincingness of formal arguments than do Americans. We might also find that East Asians would be heavily influenced by prior beliefs in judging the soundness of formal arguments. Americans should be more capable of ignoring prior beliefs and setting aside experience in favor of reasoning based on logical rules (emphasis added, p. 296).	Weak
8	Norenzayan et al. (2002)	<i>Why are Western and East Asian participants biased toward different modes of reasoning?</i> The attempt to answer this important question must of course be speculative at this time because it involves complex sociological and historical issues beyond the scope of this paper, and we leave it as an open question for the future. Here we mention briefly three factors that have been identified by philosophers, ethnographers, and social historians (for a fuller discussion, see Nisbett et al., 2001). ... Third, many historians of science and philosophy both Western and East Asian have reported important cultural differences in the dominant philosophical traditions that <i>have influenced</i> the intellectual practices in the West and East. Early Greek and Chinese philosophy, science, and mathematics were quite different in their strengths and weaknesses. Many Greek philosophers looked for universal rules to explain events and were concerned with categorizing objects with precision and with respect to their “essences.” There was a marked distrust of intuition. Chinese philosophers, especially Taoists, were more pragmatic and intuitive, and were distrustful of formal logic and rational distinctions (emphasis added, p. 679).	Strong

(table continues)

Table 1 (continued)

No.	Source	Quotation	View described
9	Nisbett (2003)	We found cognitive differences in reasoning that to some degree <i>mirror</i> differences in (ancient) philosophical traditions (emphasis added, p. 679).	Weak
10		To establish the contention that very different systems of perception and thought exist—and have existed for thousands of years—I draw on historical and philosophical evidence, as well as modern social science research, including ethnographies, surveys, and laboratory research (p. xi).	Weak
11		More than a billion people in the world today claim <i>intellectual inheritance</i> from ancient Greece. More than two billion are <i>the heirs of</i> ancient Chinese traditions of thought (emphasis added, p. 1).	Strong
12		[I]t is the Aristotelian tradition that <i>continues</i> in the West and the Confucian that <i>continues</i> in the East (emphasis added, pp. 29–30).	Weak
13	Nisbett and Masuda (2003)	If ancient Greek and Chinese philosophers differed from one another because their social systems made it natural for them to see and process the world as they did, then there would be some justification for <i>predicting</i> that modern East Asians (China and the cultures it strongly influenced, including Japan and Korea) might reason differently from modern Westerners (notably the people of Europe and the current and former members of the British Commonwealth). This is because there is substantial evidence that the current social practices of East and West differ in ways that <i>parallel</i> those of ancient times (emphasis added, p. 11163).	Weak
14		If it is really the case that contemporary Asian and Western societies are different in their emphasis on relationships vs. independent action, then <i>it might be the case that Asia and the West differ in their cognitive and perceptual habits along the lines of the holistic vs. analytic stance characteristic of ancient Chinese vs. ancient Greek science and philosophy</i> . For the past several years, we and our colleagues have been examining this possibility in a number of domains (emphasis added, p. 11164).	Weak
15	Spencer-Rodgers et al. (2004)	We might expect that Westerners, <i>like ancient Greek scientists</i> , would be inclined to explain events by reference to properties of the object and that East Asians would be inclined to explain the same events with reference to interactions between the object and the field (emphasis added, p. 11164).	Weak
16		Dialectical thinking is <i>rooted in</i> East Asian philosophical and religious traditions, including Confucianism and Buddhism (Peng & Nisbett, 1999) Contemporary	Strong

(table continues)

Table 1 (continued)

No.	Source	Quotation	View described
17	Peng et al. (2006)	dialectical thought is embedded within the lay cultural beliefs and folk epistemologies of numerous East Asian cultures, including Chinese, Japanese, and Koreans, among others (Peng & Nisbett, 1999). In contrast, Western cultures tend to be more linear or synthetic in their cognitive orientation: They consider both sides of an opposing argument and then they search for synthesis and the resolution of incongruity (Lewin, 1951; Peng & Nisbett, 1999). As Lewin (1935) asserted, Western folk epistemologies <i>are rooted in Aristotelian</i> traditions, which emphasize three basic principles (Peng & Nisbett, 1999; emphasis added, p. 1417). In other words, whereas Chinese sociology and, to a certain extent, social psychology, may be <i>based on</i> Confucian teachings (Bond, 1997), Chinese cognitive psychology, or the thinking and reasoning of Chinese lay people, may be best seen as <i>reflecting</i> Taoist teachings (emphasis added, p. 249).	Weak
18		We suggest that Chinese are naïve Taoists in spirit and that Chinese thinking and reasoning are guided by folk versions of Taoism, which we label naïve dialecticism (p. 249).	Strong
19		We argue that Taoist teachings <i>exist both as cultural ideology and as individual, cognitive representations</i> . We can connect the Taoist teachings with individual psychology by studying individual representations of the Tao, and by studying how these individual representations affect individual psychological processes (emphasis added, p. 253).	Strong
20		Western folk beliefs of knowing, or understanding of the nature of the world and human life <i>are Aristotelian in spirit</i> , emphasizing constancy (identity), synthesis (non-contradiction), and extremes (no middle ground). In contrast, Chinese emphasize a dialectical approach that values change, contradiction, and relationships. These important cultural variation[s] have broad implications for the ways in which psychologists understand and theorize about cultural variation in general (emphasis added, p. 257).	Weak
21	Spencer-Rodgers et al. (2010)	Holistic thinking styles and lay beliefs have been more frequently found in East Asian (relative to North American) societies and are thought to <i>derive from</i> East Asian Taoist, Confucian, and Buddhist philosophical traditions (emphasis added, p. 298).	Strong

(table continues)

Table 1 (continued)

No.	Source	Quotation	View described
22		In this article, we focus on naïve dialecticism (Peng et al., 2006), a lay belief system that can be viewed as a facet of the broader, overarching interpretive construct of holism, as it derives from the same general East Asian Taoist, Buddhist, and Confucian epistemologies (emphasis added, p. 298).	Strong
23		Furthermore, Taoist, Buddhist, and Confucian belief systems are thought to have reinforced holistic and dialectical worldviews among East Asians in particular (emphasis added, p. 298).	Strong
24		Dialectical perceivers, who probably reside primarily among East Asian cultural groups as a consequence of Confucian, Taoist, and Buddhist intellectual influences on those cultures, view the world and its social and nonsocial components as internally contradictory, inextricably interconnected, and inevitably in flux. ... The phenomena of tolerance for contradiction and the expectation of change exist elsewhere; tolerance for contradiction, for example, has been documented in India (Ramanujan, 1989; Shweder, 1991). However, the folk theories that give rise to this cognitive process may have their origins in different philosophical and intellectual traditions. In East Asia, dialectical lay theories derive from Confucianism, Taoism, and Buddhism (Nisbett, 2003), but little is known about either the origin or prevalence of these cognitive processes in other nations (emphasis added, p. 308).	Strong
25	Riemer et al. (2014)	The sources of these cultural differences in attitudes and their consequences are multiple and diverse. ... Other contributing factors include ongoing and pervasive differences in patterns of social interaction, institutional policies and practices, and media products, as well as historically derived differences in foundational religious and philosophical ideas (emphasis added, p. 620).	Strong
26		Western thought evolved from the Greek philosophical heritage and Aristotelian logical thinking, characterized by a reliance on axioms and definitions. Three key principles are emphasized—the law of identity (“A equals A”), the law of noncontradiction (“A cannot be equal to not-A”), and the law of excluded middle (“A is either B or not-B”)—all of which rely on the assumption that there can only be one truth (Peng & Nisbett, 1999). Eastern philosophy, on the other hand, stresses that everything needs to be assessed in its context. Heavily influenced by Confucianism and Dao/Taoism, which	Strong

(table continues)

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Table 1 (continued)

No.	Source	Quotation	View described
27	Gutchess and Sekuler (2019)	emphasize harmony and the coexistence of opposites (as represented by Yin in Yang in the writings of Lao Tzu, Tao Te Ching—The book of the way and its virtue), these philosophies regard reality as complex, flexible, and constantly changing (Feng, 1962; King & Bond, 1985). Eastern philosophy, thus, emphasizes three principles: the principle of change (“reality is a process”), the principle of contradiction (“integration of opposites”), and the principle of relationship or holism (“everything is connected”). These distinct perspectives <i>lead people</i> in non-Western contexts to be more comfortable with contradictions compared to those in Western contexts (emphasis added, p. 633). Differences in cultural traditions of thought focus on Chinese and Greek societies, which historically differ markedly in philosophical and scientific traditions (Nisbett, 2003; Nisbett et al., 2001). Chinese culture, thought to <i>shape</i> much of Eastern thought, places great emphasis on the obligations to others and the importance of the group, whereas Greek culture, argued to <i>shape</i> much of the Western style of thought, emphasized independent agency (emphasis added, p. 141).	Strong

Note. Each quotation is classified as describing the weak (predictive) view, the strong (casual) view, or a mixture of weak and strong. Bold and italics were added to highlight the words and phrases that indicate whether the view is weak, strong, or mixed.

Between Western and East Asian Cultures”?, below). However, as the quotations in Table 1 show, cultural psychologists’ belief that ancient philosophies can predict or explain contemporary mindsets has persisted across generations of scholars. Further, whereas many earlier claims about ancient philosophy and modern cultural differences embraced a weaker predictive view or a mixture of the weak and strong views (e.g., see Nisbett et al., 2001; Norenzayan, 1999), psychologists began over time to mainly describe the strong view as a candidate mechanism by which modern cultural differences could potentially be explained. Thus, we believe that as the relationship between ancient philosophies and modern psychologies has progressed from the realm of predictive parallelism to potential explanatory variables, it is appropriate to evaluate the basis for such views.

What is the evidence for these views? It is difficult to test for relationships between historical causes and effects that are separated by

millennia. Thus, there is little evidence for or against the strong (causal) version of the proposal that ancient philosophies gave rise to modern psychologies. Accordingly, Norenzayan et al. (2002) stated, “[A]s provocative as this congruence may be [between modern mindsets and ancient philosophical traditions], we cannot know at this time if these traditions are actually implicated in such reasoning processes” (p. 679). Fortunately, both the strong and weak proposals rely upon the same premise: the premise that ancient Greek and Chinese philosophies differed in ways that parallel psychological differences between modern Westerners and East Asians. Investigating these putative parallels is more tractable than testing for causal relationships across the millennia because the parallels can be assessed by evaluating the proposed differences between the ancient philosophies, per se. If ancient Greek and Chinese philosophies differed in ways that parallel modern psychologies, then

both the strong and weak proposals could stand. However, if the ancient philosophies do not differ in the ways suggested by cultural psychologists (and other scholars), then neither the weak nor the strong proposal can stand because their common premise (the parallelism between ancient philosophies and modern psychologies) does not hold. Norenzayan et al. acknowledged that “whether or not there is psychological continuity between [ancient] philosophical traditions and [modern] reasoning processes remains an open question,” and they noted the need for further “interdisciplinary investigation” to address this question (p. 679).

In this article, we take up such an interdisciplinary investigation. We first analyze primary texts² from three prominent ancient Greek philosophers (Heraclitus, Plato, and Aristotle), whose works spanned about two centuries (sixth–fourth centuries Before Common Era [BCE]). We then analyze secondary texts from contemporary scholars examining primary texts from some of the most influential ancient Chinese philosophers (including Confucius, Mencius, and Zhuangzi),³ mainly from the fifth–third centuries BCE. Finally, we draw on contemporary psychological theories to construct an account of why scholars’ characterizations of ancient Greek and Chinese philosophies may have developed in the manner that they have.

To preview our conclusions, we first argue that the representation of ancient Greek and Chinese philosophies in the cultural psychology literature is skewed, highlighting supposed differences between ancient Greek and Chinese beliefs and obscuring similarities. Revising the narrative about these ancient traditions of thought challenges the supposed parallels between ancient philosophies and modern psychological mindsets. In the absence of such parallels, it is not possible to support the claim that ancient Chinese and Greek philosophies can predict or explain the differences between modern East Asian and Western mindsets. We propose a candidate explanation for how misinterpretations of these ancient Greek and Chinese philosophies may have occurred and for how the belief arose that these ancient philosophies help to explain modern mindsets. Specifically, we describe four psychological and sociopolitical processes that may distort modern views of ancient philosophical traditions. Rather than ancient philosophies molding modern mindsets, we conclude that

modern mindsets have shaped our contemporary understandings of these ancient philosophies.

Ancient Systems of Thought

How do contemporary scholars characterize ancient Greek philosophy and ancient Chinese philosophy? Reportedly, ancient Greek philosophers had a strong sense of individualistic identity, believing they had a high level of personal agency, freedom, and control. In contrast to ancient Chinese thinkers, Greek thinkers were not seen as prioritizing social relationships and obligations between people. Greek thought is described as valuing abstract theory and generalizable rules above experience. Thus, Greek philosophy is seen to focus on logically analyzing objects to understand their behavior across situations with a tendency to view the world as “fundamentally static and unchanging” (Nisbett, 2003, p. 10; see also Gutchess & Sekuler, 2019; Nisbett & Masuda, 2003; Nisbett et al., 2001; Peng & Nisbett, 1999; Slingerland, 2018; Yama & Zakaria, 2019).

In contrast to ancient Greek philosophy, ancient Chinese philosophies (specifically Confucianism, Taoism, and Buddhism) are typically described as promoting a strong sense of collective social identity, emphasizing social relationships and prioritizing obligations between people. For example, Confucianism, one dominant philosophy of ancient China, is characterized as an elaboration of the different types of obligation that existed between members of society and between people and nature, such that harmony could be established within social groups. Ancient Chinese philosophies are seen more generally as holistic, meaning they emphasize the relationships between objects, as well as between objects and their greater context (i.e., focused more on “wholeness”). These philosophies are also described as dialectical (i.e., holding

² “Primary texts” refer to authors’ writings in the original language (e.g., in Attic Greek) and in translation (e.g., in contemporary English), in contrast to “secondary texts,” which describe or analyze the primary texts. Analysis of primary texts in their original language (when possible) can highlight (and potentially correct) misrepresentations potentially introduced or sustained by translators and their own views. As such, the process of translation may be one driver of the sources of theoretical distortion discussed below.

³ To avoid potential confusion, we use the names Confucius for Kongfuzi (or Kongzi) and Mencius for Mengzi because they are the more commonly used and recognized names in English-language scholarship.

clashing viewpoints simultaneously). For example, consider how contrary principles like light and dark, unity and dualism, or positive and negative come together in the *taijitu*, also called the yin-yang symbol, from ancient Taoist philosophy. Taoism advocated finding a “middle way” between opposites, rather than identifying one view as correct through formal reasoning. Unlike Greek philosophy, which is characterized as prioritizing abstract and unchanging principles, Chinese philosophy is characterized as prioritizing the role of experience and change in understanding the world (Gutchess & Sekuler, 2019; Nisbett, 2003; Nisbett & Masuda, 2003; Nisbett et al., 2001; Peng & Nisbett, 1999; Slingerland, 2018; Yama & Zakaria, 2019).

This characterization of ancient Eastern and Western philosophies in cultural psychology reflects, and is in part derived from, a broader perspective among philosophers, classicists, and historians of science. This perspective views ancient Chinese thought as prioritizing collective identity, social obligations and duties over individual agency, dialectical reasoning, and the importance of social and natural harmony (Brindley, 2010; Lloyd, 1990, 1996). Conversely, ancient Greek thought is described as prioritizing individual identity and freedom over sociopolitical obligations, the use of debate to persuade others of a particular conclusion, and stable, abstract principles over changing experience (Blackson, 2011; Hamilton, 1942; Lloyd, 1990, 1996; Toulmin & Goodfield, 1965). This representation of the differences between ancient Chinese and ancient Greek thought echoes beyond the academy in popular science books (e.g., Capra, 1975).

Reconsidering Ancient Greek Philosophy

In addition to differences between ancient Greek and Chinese philosophies, however, there are also strong similarities; these are not evident in the cultural psychology literature. A review of primary Greek texts, for example, reveals how ancient Greek thinkers expressed ideas that the modern cultural psychology literature would associate with ancient and modern Chinese thought.

Here we discuss some essential themes in ancient Greek philosophy that overlap with themes that are of central importance to ancient Chinese philosophy—contrary to the message conveyed by many contemporary texts (e.g., see Table 1). We illustrate these themes in the work of

three philosophers: Heraclitus, Plato, and Aristotle. We chose these philosophers because (a) they have been highlighted in the cultural psychology literature (Nisbett, 2003; Nisbett et al., 2001; Peng & Nisbett, 1999; Yama & Zakaria, 2019); (b) they cover different periods of ancient Greek thought, demonstrating the persistence of these supposedly “Chinese-like” ideas; and (c) other Greek philosophers (and later schools of thought) engaged frequently with the ideas of these three philosophers.

Heraclitus

Heraclitus is one of the philosophers most concerned with principles of change (or flux) in nature, among other related themes such as the connection between seemingly contradictory perspectives (Bywater & Patrick, 1969). For Heraclitus, “The harmony of the cosmos is a tension between opposites, like that of the lyre and the bow” (Bywater & Patrick, 1969, p. 127), and things continually transform into their opposites: “Cold things become warm, the warm becomes cool, the wet becomes dry, [and] the dry becomes wet” (Bywater & Patrick, 1969, p. 126). Heraclitus is best known for his statements about how nature changes constantly: “The sun is new each day” (Bywater & Patrick, 1969, p. 126); “Into the same rivers, you cannot step twice, for different waters are flowing”⁴ (Bywater & Patrick, 1969, p. 126). Thus, Heraclitus focused on issues that are commonly associated with ancient Chinese philosophy: This fact was acknowledged by Nisbett (2003) and Nisbett et al. (2001). However, Heraclitus’s perspective has been treated as a brief interlude in Greek thought before being replaced by the views of the philosopher Parmenides and his followers. Parmenidean thinkers argued that change was impossible and understood the world to be stable and unitary (i.e., that the world is one rather than many things). Thus, Greek thought is characterized as having shifted from prioritizing change and the interplay of opposites to prioritizing unity and stability (Nisbett, 2003).

Yet, this characterization of Greek philosophy overlooks the fact that Heraclitus’ ideas did not disappear after the work of Parmenides entered

⁴ Author Amritpal Singh produced the English translations of Heraclitus used in this section. The original Greek text is found in Bywater and Patrick (1969). For alternative English translations, see Bywater and Patrick (pp. 92–94, 98).

the philosophical arena. The ideas of both philosophers were engaged with seriously generations later. Plato's *Cratylus* (Plato, 2011), for example, features the Heraclitean philosopher Cratylus; Aristotle, too, engaged with Heraclitus across several of his works, including *Physics* (Aristotle, 1941b) and *Metaphysics* (Aristotle, 1966). Indeed, the Heraclitean fragments we have today are based on quotations of Heraclitus by philosophers engaging with his work much later (sometimes centuries later, e.g., Plato, Aristotle, Plutarch, and Diogenes Laertius; Bywater & Patrick, 1969). Thus, although Heraclitus was not the dominant philosopher of ancient Greece, it would be incorrect to view him, as cultural psychologists have, as only a short-lived figure with a limited influence on ancient Greek thought. Heraclitus' ideas about change and contradiction lived on in the writings of other ancient Greek philosophers for centuries after his death. Thus, Heraclitean philosophy both shares similar focuses with stereotypical Chinese thinking (e.g., the Heraclitean balance between opposing principles is similar to how opposing principles are balanced in the taijitu), as noted in the literature already (Nisbett, 2003; Nisbett et al., 2001), and also maintains a persistently important role in the Greek philosophical tradition.

Plato

Plato explored in depth many of the topics and practices stereotypically linked with ancient Greek philosophy: He embraced debate and formal reasoning, and he was more concerned with aspects of reality that are abstract and stable rather than those that are experiential or changing, as evidenced by the *theory of forms* postulated by the character Socrates in Plato's dialogues. According to Socrates, things in the realm of experience are imperfect copies of eternal and changeless *ideas* or *forms* (from the Attic Greek *eidos*) that exist in a more true, transcendent realm (e.g., circular things we perceive in the world are not perfect circles; they are imperfect copies that participate in the abstract form of the circle; see *Meno*, Plato, 1999b; *Phaedo*, Plato, 1977; *Phaedrus*, Plato, 1995; and the *Republic*, Plato, 1991). The theory of forms serves as one example of the type of thinking that prioritizes abstract stability over everyday, changeable experience.

Yet, in addition to these characteristically Western themes, other core themes in Plato's

work show that the philosopher was concerned with issues associated with ancient Chinese philosophers.

Plato embraced a stereotypically "Chinese" form of reasoning: dialectical reasoning that, as defined in the cultural psychology literature, involves holding opposing viewpoints simultaneously to "understand relations among objects and events, to transcend or integrate apparent oppositions or even to embrace clashing but instructive viewpoints" (Nisbett, 2003, p. 27). Dialectical reasoning is often characterized as the Chinese counterpart to the Greek tradition of using debate to determine which of two viewpoints was the correct one (Nisbett, 2003; Nisbett et al., 2001, p. 294; Peng & Nisbett, 1999; Yama & Zakaria, 2019). Yet, both dialectic and debate feature in Plato's works.

The majority of the Platonic corpus takes the form of dialogues between different interlocutors who converse about their viewpoints, which are often contradictory. Crucially, the conversations in the dialogues rarely resolve cleanly (i.e., they rarely conclude with a statement of which character or viewpoint was the correct one). Rather, conversations about a question often ended in *aporia* (i.e., a state of not being able to resolve the question) or with a story intended to help the reader think through a position more deeply rather than to answer the question conclusively. Even positions that seem to be dominant in one dialogue (e.g., the theory of forms in the *Republic*; Plato, 1991) may be critiqued from an opposing perspective in another dialogue (e.g., the critique of the theory of forms in *Parmenides*; Plato, 1996). Both within and across the dialogues, philosophical questions are raised not to have a final solution presented at the end of a debate but rather to have clashing perspectives held together in conversation because they are instructive for the reader to think through.⁵

According to another proposed distinction between ancient Greek and Chinese philosophy, Greek thinkers valued individual freedom over collective duty and social obligations, whereas the opposite was true for the ancient Chinese thinkers. According to Plato, however, Socrates saw his obligations to the Athenian polis and its

⁵ This Platonic form of dialectical thinking, in which clashing viewpoints may be maintained, differs from later Western forms of dialectical thinking (e.g., Hegelian dialectic) in which opposing views must be resolved.

laws as paramount: higher even than the need to preserve his own life. In *Crito* (Plato, 1999a), Socrates objects to Crito's suggestion that he should escape to safety in another city rather than suffering an unjust execution at the hands of the Athenian state. Socrates refuses to leave, arguing that a citizen owes loyalty and life to their state (specifically Athens) even when it harms them because of the overall good that the state has done for its citizens (Plato, 1999a, 50e).⁶ To escape his state-mandated execution would be a threefold betrayal of the duty and love he always held for Athens: Escaping would violate the obedience he owes to the state as (a) his parent since it gave him life, (b) his educator and nurturer, and (c) the other party in a social contract in which he agreed to live by the laws of Athens (Plato, 1999a, 51d–52a). By submitting to execution, Socrates showed that his individual desire for life did not take precedence over his social duty to obey the laws of his society.

Whereas the account of ancient Greek thought in the cultural psychology literature suggests that it was the ancient Chinese who valued harmony and balance, these are major themes of Plato's work, evident perhaps most notably in the *Republic* (Plato, 1991), which includes lengthy discussions of how to achieve personal harmony (see also *Phaedrus*, Plato, 1995) and social harmony.

Aristotle

Aristotle, a pupil of Plato who went on to found the Peripatetic school of philosophy, is often invoked as the philosopher from whom modern Westerners inherit their mindsets. Like the other ancient Greek thinkers, and due perhaps to his foundational work in logic, he has been described as prioritizing generalizable rules above experience, as endorsing a sense of individual identity, and as using categorical thinking to understand objects, actions, and events independent of their context. Yet, this characterization of Aristotle does not capture the “Chinese-like” themes in his writings.

Aristotle was conscious of the need to balance theory with experience (i.e., to balance generalizable rules with the phenomena they attempt to describe). A passage from *On the Movement of Animals* discusses this balance explicitly:

We must however, grasp this [relation of motion to rest] not only generally and in theory, but also in the

particular cases and in objects of sense-perception; it is through these that we go on to look, as well, for general explanations, which we believe must be in harmony with them. (Aristotle, 1986, p. 24, 698a 10–15, italics added)

For Aristotle, experience is not to be ignored when it runs counter to theory. Rather, experience is what theory arises from and must accord with (a perspective carried forward by later philosophers such as Aristotle's successor *Theophrastus*, 1916, *Theophrastus*, 1976). This attention to examples drawn from sensory evidence runs contrary to the approach typically ascribed to the Greeks (Nisbett et al., 2001):

“The Chinese ... sought intuitive instantaneous understanding through direct perception” (Nakamura, 1964/1985, p. 171). This resulted in a focus on particular instances and concrete cases in Chinese thought (Fung, 1983; Lloyd, 1990; Nakamura, p. 171). Many Greeks favored the epistemology of logic and abstract principles, and many Greek philosophers, especially Plato and his followers, actually viewed concrete perception and direct experiential knowledge as unreliable and incomplete at best, and downright misleading at worst. Thus they were prepared to reject the evidence of the senses when it conflicted with reason (Lloyd, p. 118). (Nisbett et al., 2001, p. 294)

Aristotle viewed humans as essentially collective and social beings (i.e., *zoon politikon*). In *Politics*, he postulates that by their nature, humans are social animals (Aristotle, 1941c, 1253a 1–5; 1278b 20) and indeed are the *most* social animals: more than any other social species (e.g., bees; Aristotle, 1941c, 1253a 6–10). Elaborating, Aristotle explains that humans are not self-sufficient animals and characterizes those who live without others as either beasts or gods (the implication being that we would not regard them as human; Aristotle, 1941c, 1253a 20–30). Rather, Aristotle claims that each human individual is a part of a greater political whole (Aristotle, 1941c, 1253a 1–30).

In *Nicomachean Ethics* (Aristotle, n.d./1941a), we can see other ways in which Aristotle does not accord with the description of Greek thinking in the cultural psychology literature. The main focus of this text is the development of a virtuous character. For Aristotle, the process of development (a) cannot be based on the application of a rule, (b) depends critically on context, and (c) is

⁶ Stephanus and Bekker numbers have been added to the in-text citation to direct readers to exact locations of textual references regardless of translation.

not only an individual pursuit but rather depends on social relationships.

Aristotle argues that ethics is not an appropriate place for the type of formal, propositional reasoning that would be more appropriate for logic or mathematics (Aristotle, n.d./1941a, 1094b 10–25). He argues that there is no fixed sense of what is good and no universal good present across all the situations in which we find ourselves (Aristotle, n.d./1941a, 1096a 11–1097a 14, 1104a 5). Put another way, there is not a single principle or rule for goodness or virtue that could apply across contexts.⁷ Rather, what is good is dictated by the particular context in which the actions take place (Aristotle, n.d./1941a, 1104a 5–10): To do the right thing is “to do it to the right person, to the right extent, at the right time, with the right motive, and in the right way...” (Aristotle, n.d./1941a, p. 963, 1109a 25–30).

Beyond virtue, Aristotle argues that developing other traits requires finding the right balance between two contrary poles (e.g., finding the balance between recklessness and timidity to be courageous; Aristotle, n.d./1941a, 1104a 10–1104b 10, 1106b 30–1109b 30). This goal of finding a virtuous balance between contrary vices echoes the Chinese philosophical goal of finding the “middle way” in how one acts and thinks.

Like *Politics*, *Nicomachean Ethics* views its subject as tied to the interpersonal and relational aspect of humans. Two of the 10 books of *Nicomachean Ethics* (Aristotle, n.d./1941a, 1155a 1–1172a 15) are dedicated exclusively to the topic of understanding just one type of relationship, friendship, and its role in the development of virtue. For Aristotle, the development of an individual’s character is intertwined with their interaction with the political state and with the interpersonal relationships they form (Aristotle, n.d./1941a, 1094a 17–1094b 11). One’s character cannot be constructed independent of one’s relationships with others.

Collectivism and Holism in Ancient Greek Philosophy

To conclude this brief discussion of Heraclitus’, Plato’s, and Aristotle’s philosophies: These influential ancient Greeks emphasized topics that have been characterized in the cultural psychology literature, and beyond, as the province of Chinese philosophy, including the dynamism of nature and

the importance of context, balancing theory with experience and dialectic. In fact, these emphases were *shared* between ancient Greek and Chinese philosophy. Although ancient Greek philosophers did engage with “Western-like” individualistic ideas, supposedly “Eastern-like” collectivistic themes (e.g., harmony, duty, and social relationships) played a central role in the work of these prominent ancient Greek thinkers whose influence spanned generations of ancient Greek philosophical thought.

Reconsidering Ancient Chinese Philosophy

We have argued that ancient Greek philosophy prioritizes themes that are emblematic of ancient Chinese philosophy. Is it possible that ancient Chinese philosophy prioritizes themes that are emblematic of ancient Greek philosophy, as well? We, the authors, are not familiar enough with ancient Chinese philosophy to provide a review of primary sources, as we have done for ancient Greek philosophy. However, at least three secondary sources suggest that the representation of Chinese philosophy in the cultural psychology literature may be skewed in an analogous manner to the representation of Greek philosophy. Here, we review work from cultural psychology and the history of ancient China, which argues that individualism and analytic thought have played consistent roles in ancient Chinese thought.

Confucian Pursuit of Self-Perfection

According to the psychologists Wang and Li (2003), Confucian philosophy had an “emphasis on self-perfection and self-cultivation” (p. 94). This emphasis is not evident in typical accounts of ancient Chinese philosophy written by Western scholars. In particular, Wang and Li argued that descriptions of Confucianism and Taoism in the cultural psychology literature leave out individualistic elements in those philosophies that concern notions of the self in the domain of learning and achievement.

Wang and Li (2003) argued that, although Confucian ethics stresses social obligation and relatedness, it also emphasizes cultivating and

⁷ Aristotle qualifies this point later, saying that virtue involves applying rational principles guided by practical wisdom, as opposed to theoretical or formal reasoning (1144b 1–1145a 11; but see 1103b 25–30, 1109b 14–30).

reflecting on the self to perfect it. This goal is related to the concept of *ren*, which refers to becoming “the most genuine, sincere, and humane person [one] can become” (p. 92). Wang and Li glossed *ren* as “self-perfection” and suggested that this pursuit is the highest purpose of life for any person in Confucian belief (p. 92). In another illustration of the individualistic aspects of traditional Chinese philosophy, Wang and Li described the principle of *dushan qishen* in the moral domain, which pertains to how one must “pay attention to one’s own moral uplift *without thought of others*” (p. 95, italics added). Wang and Li argued that the importance of *dushan qishen* “reveals an unequivocal individual sense of self [which] has been highly valued in Chinese culture throughout history” (ibid.) On the basis of Wang and Li’s arguments, it does not seem accurate to describe Confucianism as singularly collectivistic: Beyond one’s obligations to other people—and perhaps as a means to fulfilling them—ancient Chinese individuals were obligated to focus on the self, in some cases “without thought of others.”

Individualism in Ancient Chinese Thought

Whereas Wang and Li (2003) focused on Confucianism, Brindley, an intellectual and cultural historian, analyzed primary texts from other ancient Chinese philosophies (Brindley, 2010). Brindley centered her analysis primarily around the individualistic strains of thought in the *Mencius*,⁸ the *Zhuangzi*, the thought of Yang Zhu, and later texts that continued these individualistic strains (e.g., the *Zhong Yong* and *Gaozi*). These texts are among the most influential philosophical works of their time, and all of them advanced individualistic thought.

Brindley’s (2010) review points to specific aspects of ancient Chinese philosophy that endorsed a type of individualism indigenous to Chinese culture. According to Brindley, ancient Chinese philosophies fostered ideas of individuals’ bodily agency (pp. 64–65, 68, 71, 78) and prioritized each person’s individual spiritual attainment and moral development (pp. 54, 59–60). Whereas the locus of power and agency in earlier Chinese texts had been external to the individual, the canonical texts that Brindley reviewed shifted the locus of power and agency to within the individual (Brindley, 2010, pp. 54, 65, 83; see also Slingerland, 2018, pp. 100, 111–117,

121–127, for a discussion of *xin*, “heart-mind,” as an internal locus of personal identity and moral responsibility). These philosophies from the fourth to second centuries BCE prioritized individuals’ particular needs (Brindley, 2010, pp. 73–74) and the moral development of people’s innate human natures (i.e., *xing*; Brindley, 2010, pp. 64–70). They also emphasized each person’s relation to the *Dao* (i.e., the way) and each individual’s unique manifestation of that relation (also known as *De*; Brindley, 2010, pp. 56, 60, 62, 112). Additionally, parts of *Zhuangzi*⁹ and *Mencius* claim that human nature is fundamentally good and criticize the imposition of societal norms on individuals’ innate nature (Brindley, 2010, pp. 68, 79–80). One early Chinese thinker, Yang Zhu, prioritized the individual above and beyond other societal obligations to such a high degree that other thinkers, even relatively individualistic ones, criticized him for idealizing selfishness (Brindley, 2010, pp. 70–74).¹⁰

Further, Brindley (2010) described how an ancient debate about human nature and external controls ultimately led to the emergence of an individualism that differs from some Western varieties of individualism inasmuch as there is no conflict between personal agency and guidance from external forces like culture and education. Some ancient Chinese texts debated whether cultivation of the self should depend more on the natural growth of a positive, innate *xing* (i.e., human nature; e.g., *Zhuangzi* and *Mencius*) or on external, social, and cultural controls that correct a flawed *xing* (e.g., Xunzi and Han Feizi). Yet, thinkers on both sides of this debate presupposed that human nature possessed agency and a determinative power over a person’s life

⁸ The texts that are often attributed to these thinkers (and often named after them) are typically considered to be works of multiple authors working in a tradition of thought centered around a particular thinker (though not always with the same perspective as other authors contributing to the same text; Brindley, 2010).

⁹ These are parts of the text that have been described as endorsing a primitivist perspective, rejecting all forms of societal control in favor of letting each person’s original (or “primitive”) *xing* develop unfettered on its own in a utopian setting without political hierarchies controlling individuals (Brindley, 2010, pp. 79–80).

¹⁰ However, what Brindley (2010) knew of Yang Zhu comes from his critics’ depictions of his philosophy, and Brindley accordingly hypothesized a more moderated image of Yang Zhu and his followers as simply placing the highest priority on one’s own personal attainment, rather than actively promoting selfish behavior.

(Brindley, 2010, pp. 77–103), and later thinkers synthesized these internal and external forms of control (Brindley, 2010, pp. 104–118). The *Zhong Yong* and parts of *Zhuangzi*¹¹ advanced a view of individual agency and mechanisms of external guidance (i.e., education and culture) as working together and not in conflict with one another (Brindley, 2010, pp. 104–106, 108–109). In other words, what emerged by the end of this debate was a view that external guidance from education and other cultural institutions promotes personal growth and the development of individual power (Brindley, 2010, pp. 108, 110, 118).

Brindley (2010) concluded that individualism played a vital role in ancient Chinese thought. In contrast to some traditional interpretations of Western individualism, the Chinese style of individualism is relational and holistic (Brindley, 2010, pp. 121, 129–130; but see Slingerland, 2018), as it does not always necessitate separateness from others or from external forms of control (Brindley, 2010, p. xi, 121). Nor does ancient Chinese individualism have a basis in egalitarianism (Brindley, 2010, p. 127), unlike individualism in Western thought, as it is typically characterized.¹² Instead, Chinese individualism fosters a cultivation of the self in accord with the cosmos (Brindley, 2010). Like other common conceptions of individualism, Chinese individualism relies upon personal choice, personal judgment, individual agency, and each person's will (Brindley, 2010, p. 129).

Analytic Aspects of Ancient Chinese Thought

Opposing modern scholars' tendency to focus on holistic themes in ancient Chinese philosophy (i.e., themes that are relational, context-based, or otherwise focused on "wholeness"), Slingerland (2018) highlighted the importance of analytic themes. Like Brindley (2010), Slingerland points to individualism in ancient China (Slingerland, 2018, pp. 11, 47–49). Additionally, he describes early Chinese philosophers' distinction between outward behaviors versus inner psychological states (ibid., pp. 45–47, 129–138) and their mind–body dualism (ibid., pp. 11–12, 39–45, 100–140). Slingerland focuses on mind–body dualism to argue that analytic, and even dualistic, thinking is consistently present in ancient Chinese philosophies. He provides evidence for conceptual distinctions between the mind and the body through

qualitative analysis (ibid., pp. 65–138) and quantitative textual analyses of ancient Chinese philosophy (ibid., pp. 147–192). Although Slingerland points out that Chinese dualism does not resemble what he terms Cartesian "strong" dualism, he argues that the extreme Cartesian formulation of dualism is not the norm in Western thought (ibid., pp. 7–8, 12, 40, 44–45, 231–238, 277–279) and that "weak" dualism may be shared between Western and Chinese thought (e.g., pp. 7–8, 15, 100–140, 301). Complementing our arguments above that holistic themes were important in ancient Greek philosophy, Slingerland argues that analytic themes were important in ancient Chinese philosophy (see also Behuniak, 2019; Slingerland, 2019; H. A. Smith, 2021).

Individualism and Analytic Thought in Ancient Chinese Philosophy

In summary, ancient Chinese and Greek philosophy have been juxtaposed in ways that mask similarities between these traditions. Typically, ancient Chinese thinkers have been characterized as having focused on holistic thought and collectivistic concerns such as harmony and the nature of social duties. Although ancient Chinese philosophers did engage with these ideas, individualistic and analytic themes (e.g., *dushan qishen*, individual agency, mind–body distinctions) played a central role in prominent Chinese philosophical texts (e.g., texts related to Confucius, Mencius, Zhuangzi, etc.) whose influence spanned generations of ancient Chinese philosophical thought (Brindley, 2010; Slingerland, 2018; Wang & Li, 2003). To the extent that ancient Chinese philosophy promoted individualistic concepts, it is unclear how ancient Chinese philosophy could have given rise to the collectivistic tendencies of modern East Asian cultures: cultures in which, according to a consensus in cultural psychology, individuals "subordinate their personal goals to the collective goals" (Triandis, 1989, p. 509).

¹¹ These sections of *Zhuangzi* represent what is called a syncretic point of view, in contrast to the primitivist sections of *Zhuangzi* described earlier in Brindley (2010).

¹² Although egalitarianism is among the highest values of Enlightenment-era Western individualism, individualistic European philosophers have not uniformly embraced egalitarianism (e.g., see Nietzsche, 1977).

Mindsets Across Millennia

In the preceding sections, we argued that ancient Greek and Chinese philosophy have been mischaracterized in the cultural psychology literature (and beyond). By reviewing primary literature from ancient Greek philosophy and secondary literature that reviews ancient Chinese philosophy, we argue that both individualistic and collectivistic themes feature prominently in *both* ancient philosophies. As such, the parallels that scholars have drawn between ancient philosophies and modern mindsets do not appear to hold.

Could ancient philosophies have shaped modern psychological mindsets even though the parallel differences that motivated this proposal do not hold? In the absence of the proposed parallels, it is not possible to predict or explain differences between modern Western and East Asian mindsets as resulting simply from the most prominent themes of ancient Greek and Chinese philosophy being projected forward through time. For modern Western and East Asian mindsets to have arisen from ancient Greek and Chinese philosophy, respectively, it would be necessary for individualistic ideas to have been transmitted *selectively* across the millennia from the ancient Greeks to modern Westerners and for collectivistic ideas to have been transmitted *selectively* from the ancient Chinese to modern East Asians. Such selective transmission of primarily individualistic or collectivistic elements from the ancient traditions would be difficult to explain in light of well-documented discontinuities—and even reversals—in independence versus interdependence during the histories of both Western Europe and China. Although Nisbett and colleagues suggested that there was a “provocative congruence” between the ancient and the modern (Norenzayan et al., 2002), these scholars have also acknowledged the discontinuities and reversals across the centuries:

[W]e do not wish to imply that Eastern and Western societies have been marked continuously by the sorts of differences found in ancient times. The West during the Middle Ages was similar economically and socially to ancient China in many ways, and one would never characterize the feudal period as being notably individualistic. In contrast, in various periods in China, especially during the late 2nd century to the early 4th century AD,¹³ there were substantial strains of individualism. (Nisbett et al., 2001, p. 295; see also Iliev & ojaletto, 2015)

Underscoring the reversals within cultures over time, we note that modern Greece does not appear to be an individualistic society, belying the possibility that the relevant ancient Greek traditions are kept alive by modern Greece. According to Hofstede's (2001) individualism index, modern Greece is *less* individualistic than modern Japan.¹⁴

Given that stereotypically “Eastern” and “Western” themes are intermixed in ancient East Asian and Western philosophies, there is no clear parallelism between these ancient philosophies and the corresponding modern cultures. Given that individualistic and collectivistic periods alternated over the centuries within each culture, it would be difficult to posit a mechanism to explain how individualistic elements of ancient Greek thought were selectively transmitted across time to modern Westerners and how collectivistic elements of ancient Chinese thought were selectively transmitted across time to modern East Asians (see also Iliev & ojaletto, 2015). Given the lack of parallels between the ancient and the modern, and the lack of any clear mechanism by which particular elements of the ancient philosophies could be selectively transmitted to the corresponding modern cultures, it appears unlikely that differences between ancient Eastern and Western philosophies can help to explain differences between modern East Asian and Western mindsets.

This conclusion leads to further questions: How did the belief that ancient philosophies can explain modern psychologies arise? Why have cultural psychologists and other readers of philosophy come to believe that ancient thinkers in Greece and China differed in ways that parallel modern differences between Western and East Asian cultures? How have modern scholars arrived at the conclusion that ancient philosophers' ways of thinking were so much like their

¹³ This period should not be confused with the one reviewed by Brindley (2010), which is the fourth to second centuries BCE.

¹⁴ In Varnum et al. (2008), Western European participants (recruited from several countries including Greece) show a more analytic cognitive and perceptual style than Eastern and Central Europeans across several tasks. However, only four of the 24 Western European participants in Experiment 1 were Greek, and none of the participants in Experiment 2 were Greek. Given that there were only four Greek participants, total, the data from Varnum et al. do not support any generalizable conclusions about Greek people's cognitive or perceptual styles.

own, despite evidence to the contrary that we reviewed above?

Sources of Theoretical Distortion

Rather than ancient philosophies giving rise to modern psychologies, modern mindsets may instead act as lenses through which contemporary scholars view ancient thought. These lenses may distort modern views of ancient philosophies in systematic ways, leading scholars to overlook themes that were central to these philosophies. We propose here a set of four psychological and sociopolitical processes that may drive this distortion. We call these processes *egocentric projection*, *familiarity filtering*, *sociopolitical erasure*, and *construct narrowing*.

Egocentric Projection

One process that may distort modern readers' views of ancient thought we call *egocentric projection*. Psychological projection, in its broadest sense, means imputing one's internal states to an external object (McWilliams, 2020). Egocentrism is the tendency to believe that what is true of oneself is also true of others and to fail to recognize that others could differ from oneself (Epley et al., 2004). In combination, egocentrism and projection lead people to routinely see their own traits (feelings, beliefs, etc.) in other people, whether or not the others share these traits (Baumeister et al., 1998; Holmes, 1968; Murstein & Pryer, 1959).¹⁵ One example of egocentric projection is the false consensus effect (Ross et al., 1977), in which people assume that their own beliefs are the norm and that alternative beliefs are the exception, even when their beliefs do not represent a consensus (Baumeister et al., 1998; Epley et al., 2004; Murstein & Pryer, 1959). Another example of egocentric projection illustrates the tendency to see others "through our own eyes," almost literally. A national sample of U.S. participants tended to assume that other people had the same eye color as themselves, even when this assumption was inconsistent with the distribution of eye color in the world (e.g., blue-eyed participants imputed blue eyedness to a *majority* of other people, even though a small minority of other people actually have blue eyes; Casasanto & Staum Casasanto, 2011; see also Lupyan et al., 2023). In an informal example of egocentric

projection, parents of a biological child might *both* see their child as bearing a stronger resemblance to their own side of the family than to the other side.

Examples of egocentric projection extend even to figures from ancient philosophy. For example, Du Bois (1987) described how, presumably due to their implicit biases, people have tended to make a false assumption about thinkers from ancient Southern Europe and Northern Africa. According to Du Bois, modern White readers have projected an aspect of their own identities—namely, their Whiteness—onto esteemed thinkers of the ancient Mediterranean, viewing those thinkers as similar to themselves in a way that these historical figures were almost certainly different from themselves.¹⁶

Analogously, modern readers of ancient philosophy may project other aspects of themselves, such as their perspectives, motivations, and theories, onto the ancient philosophers in their cultural canons.¹⁷ Readers may project their culture-specific attitudes and ways of thinking onto thinkers who, due to egocentric projection, they assume to be like themselves. The temptation to impute modern beliefs to these historical figures may be particularly strong if the modern scholars admire them and (perhaps unconsciously) wish to see similarities between themselves and their intellectual heroes. If such projection does occur, modern readers may mistakenly come to believe that they are more similar to the ancient authors in their culture's canon than they truly are. Having identified similarities (real or projected) between ancient and modern minds and assuming that the group who came first in time *caused*

¹⁵ Projection, as defined here, cannot be reduced to the narrower construct of projection in psychopathology, which involves attributing an undesired negative trait in oneself to others as a defense mechanism, related to repressing one's awareness of the negative attribute (Baumeister et al., 1998; Holmes, 1968).

¹⁶ Even if some ancient scholars from Southern Europe and Northern Africa had fair skin, our modern social category of White may not have existed in their culture; the assumption that the ancient scholars were White would rely on projecting our own social categories onto people for whom they did not obtain.

¹⁷ For example, see Slingerland (2018, pp. 290–295) for a relevant discussion of how scholars struggle to interpret ancient Chinese texts in their own right, rather than in light of scholars' own (often theologically motivated) theories. The struggle Slingerland describes is one example of how egocentric projection may lead to misinterpretation of ancient texts.

the later group to think the way they do, modern thinkers may then conclude that their own mindsets are rooted in the thinking of those ancient philosophers.

Familiarity Filtering

By *familiarity filtering*, we refer to a process by which readers may focus on and magnify those elements of ancient thought that most align with their own cultural values and ways of thinking. This filtering process, which is proposed to operate at a conceptual level, is analogous to well-documented processes in visual attention. Given a field of unfamiliar stimulus objects in a visual search task, participants are faster to identify a familiar target object than to identify an unfamiliar target (Wang et al., 1994). The familiarity advantage shown in basic visual psychophysics has not been extended to “search” for content in conceptual spaces, to our knowledge, but it has been shown to operate on stimuli that people encounter outside of the laboratory (e.g., search for familiar vs. unfamiliar brand logos; Qin et al., 2014).

What happens to visual input to which we do not attend? Often that information does not become a part of our record of the event. This process is called inattention blindness, a perceptual phenomenon in which aspects of a visual scene that do not receive focused attention are not remembered or reported (Simons & Chabris, 1999). In one dramatic example of inattention blindness, participants often fail to notice an unexpected gorilla walking through the midst of a group of basketball players when the participants’ attention is directed to counting the number of times those players pass a ball (Simons & Chabris, 1999). To participants who experience this effect, it is as if the unattended gorilla was never present: These participants only experience and report aspects of the video they were looking for.

An analogous process may occur by which modern readers attend primarily to those parts of ancient texts that engage with familiar ways of thinking. For example, a Western reader may attend more to those parts of Aristotle’s texts that align well with a Western psychological mindset because those parts appear familiar. Attending to familiar elements of the text causes the reader to remember them, to discuss them, and to make them a part of the modern discourse on Aristotle.

By contrast, if readers attend less to parts of Aristotle’s texts that are unfamiliar, then these elements do not become part of the readers’ memory; they may not get discussed and may become filtered out of discourse on Aristotle. Readers of ancient philosophy may become “blind” to parts of the ancient texts that engage with ways of thinking that are less familiar to the readers (e.g., because they do not attend to parts of the text that do not match common themes in their contemporary philosophy and culture). In modern Westerners, for example, this process of filtering out unfamiliar content could create the impression that ancient Greek texts focus primarily on stereotypically Western ways of thinking; stereotypically East Asian themes within the same texts, then, go the way of the unattended gorilla.

Sociopolitical Erasure

A third process by which modern perspectives may warp views of ancient philosophical traditions is *sociopolitical erasure*: the strategic omission of elements of a cultural tradition that are considered socially or politically undesirable (Irvine & Gal, 2000). Whereas familiarity filtering and egocentric projection presumably operate at a mostly unconscious level, creating distortions that are likely to be unintentional, sociopolitical erasure can operate at a more intentional, conscious level. For example, Brindley (2010) alleged that such politically driven erasure has taken place with respect to ancient Chinese philosophy. According to Brindley, the contemporary Chinese state and the culture it promotes view individualism as alien to Chinese identity (Brindley, 2010). The Chinese government adopts this view, Brindley claims, to legitimize the state’s dismissal of charges of human rights abuses. This dismissal rests, partly, on the claim that the ideas of universal human rights are entangled with Western-specific concepts of individualism and thus are incompatible with traditional Chinese values (pp. ix–xi). In this way, Brindley claims, Chinese government officials and politically motivated scholars intentionally discouraged the identification of traditional Chinese thinking and culture with individualism. Once stereotypically Western themes have been erased, what remains is a view of traditional Chinese culture that misleads later scholars in its apparent homogeneity (see also Slingerland, 2018, p. 299).

Construct Narrowing

A fourth process that may distort modern views of ancient philosophical traditions is *construct narrowing*. In this process, an overly specific characterization of a given construct may discourage thinkers from applying that construct in all of the contexts where it could be productively applied. The construct of *individualism*, for example, has been characterized by both Western and East Asian scholars in a way that ties this construct to the history of Western European societies (Brindley, 2010). Yet, the Western version of individualism is unlikely to be duplicated exactly in non-Western cultures; Brindley (2010) pointed out that duplicating the Western variety of individualism in China would require the impossible process of duplicating Western historical trajectories in East Asia (p. xvii). Given that *Western-style* individualism has not been duplicated in China, scholars have denied the presence of Chinese individualism.¹⁸ Yet, as we argued above, individualistic themes feature prominently in Chinese thought. These individualistic themes, in the context of other aspects of Chinese culture, give rise to a *Chinese style* of individualism (see Brindley, 2010; Wang & Li, 2003). Defining “individualism” narrowly as “Western individualism” and then claiming that “individualism” is not found outside of the West is logically circular. A broader conception of individualism would encompass varieties of individualism that are evident in Chinese culture—such as *ren* and *dushan qishen*, described above—and would therefore allow scholars to apply the construct of individualism fruitfully to Chinese culture.

Clarifications and Caveats

In this section, we will address three questions in an effort to clarify the preceding arguments.¹⁹

Question 1: Have previous scholars cherry-picked specific philosophical texts to support their views concerning ancient philosophy and culture, and have we simply cherry-picked different texts to support ours? We do not believe that previous scholars selectively or strategically chose examples from the ancient texts to support their views. This is not our claim. Instead, we argue that multiple psychological and sociopolitical processes may have biased previous scholars, giving rise to genuine misunderstandings of the themes

that were central to Chinese and Greek philosophies (see above).

Similarly, we do not believe that we have engaged in cherry-picking of philosophers and texts that served our views, either. We reviewed primary and secondary texts that focused on the works of prominent figures from ancient Greek and ancient Chinese philosophy. The Greek philosophers and texts were chosen because (a) the philosophers were explicitly referenced and characterized in the cultural psychology literature (e.g., Nisbett, 2003; Nisbett et al., 2001; Peng & Nisbett, 1999; Yama & Zakaria, 2019); (b) the philosophers lived across different periods of Greek thought, showing that the commonalities we highlighted were not confined to a single individual or generation; (c) other Greek philosophers (and later schools of thought) engaged with these texts, indicating that the ideas therein were influential and available even long after the deaths of the original authors (i.e., these were not culturally peripheral thinkers or works); (d) the texts we focused on were relevant to questions of individualism versus collectivism (or the analytic vs. the holistic); and (e) the ideas reviewed were central to the author’s philosophical project. Although we relied on other scholars’ judgments for the selection of Chinese texts, it appears that these texts meet similar criteria.

Question 2: Are the present authors subject to the same biases as the scholars we are critiquing? We argued above that (at least) four distorting mechanisms may have led to a mischaracterization of Greek and Chinese philosophy. We, the authors, are undoubtedly susceptible to these same sources of bias, even though we are aware of them. However, it is not possible that these biases led to the arguments we make here. If anything, these mechanisms would have led us to agree with previous scholars because we come from similar educational and sociocultural contexts. That is, the psychological and sociopolitical processes that bias us to attend to themes consonant with the dominant view of Western versus East Asian

¹⁸ By analogy, scholars could claim that philosophy never arose in any culture other than ancient Greece, because philosophy was never again instantiated in the same manner as it was in classical Greece. The analogy highlights the problem of using overly specific criteria for establishing the presence of a particular type of practice, value, or belief in a culture.

¹⁹ Our thanks to two anonymous reviewers who thoughtfully raised these questions.

philosophies could not cause us to develop our dissenting view.

Question 3: Can we use *quantitative* methods to adjudicate between the views we have challenged and the views we advance? Our argument relies on qualitative analysis. In principle, we would welcome quantitative approaches (e.g., quantitative text analysis) that could complement our analysis of relationships between ancient philosophies and modern mindsets. However, we would suggest that at least two caveats should be considered with respect to such approaches. First, some questions may be better addressed using qualitative analysis rather than quantitative methods. Specifically, questions concerning the interpretation of philosophical texts may fall into the former category more often than they fall into the latter. One reason to prefer qualitative analyses is that the quantity of text dedicated to an idea may not equate to the centrality of that topic to a body of work or to the amount of influence it holds over future thinkers (or cultures). The ideas we focused on in Greek philosophy influenced much of the perspective and method in that tradition, whether or not they took up the greatest amount of space. For example, regardless of how many words Aristotle dedicated to the idea that character is developed in a necessarily interdependent manner or the idea that theory must be balanced with experience (see above), these are core themes in Aristotle's work that also influenced the work of later philosophers.

Second, a standard motivation to use quantitative methods is to remove the bias inherent in human judgments. In this case, however, it is not clear that quantitative approaches would achieve this goal. Reviewers kindly suggested two possible quantitative approaches: judgments of texts by "blind" human raters and use of large language models. On the first suggestion, it would be possible to do rating studies with human raters blind to the hypothesis (and potentially unfamiliar with the primary sources). However, these raters would be subject to the same distorting biases that we outlined above. On the second suggestion, large language models such as ChatGPT might not fare better than human raters because they are reported to replicate the biases of the data they have been trained on (e.g., Abid et al., 2021; Gallegos et al., 2024). These training data would presumably include the texts that contain the interpretations of ancient philosophy we have challenged here. Thus, any quantitative

approaches would still need to employ qualitative considerations to inform how the approach is applied to questions of interpretation.

We are aware of only one attempt to combine qualitative and quantitative research to test whether cultural psychology's characterization of ancient philosophies is correct. That work supports the interpretation we have advanced in this article: Slingerland (2018) combined qualitative analysis of primary texts from ancient Chinese philosophy and quantitative text analyses to argue that central themes of individualism and analytic thought have been overlooked in the scholarship on ancient Chinese philosophy (see also Brindley, 2010, for further qualitative work on ancient Chinese individualism).

Quantitative studies lie outside of the scope of this article. In principle, we would welcome further interdisciplinary approaches from the digital humanities to illuminate relationships between ancient philosophies and modern mindsets, provided these approaches could overcome the concerns we described above (e.g., by combining qualitative with quantitative methods, as in Slingerland, 2018).

What Causes Psychological Differences Between Western and East Asian Cultures?

If explanations based on ancient philosophies are not supportable, how, then, can we explain the emergence of modern East Asian–Western differences in thinking? Importantly, even adherents to the view that ancient philosophies help to explain modern psychologies do not identify ancient philosophies as the *only* cause of the observed cross-cultural differences. For example, cultural psychologists (including Nisbett and Markus) also appeal to social and ecological drivers of cultural tendencies (Nisbett, 2003; Nisbett et al., 2001; Uskul et al., 2008; Varnum et al., 2010). Candidate explanations include a bidirectional relationship between a culture's perceptual style and the built environments they create (Miyamoto et al., 2006), patterns of voluntary migration selecting for independent mindsets (Kitayama et al., 2006), and the influence of subsistence practices and the social structures that support those practices on cognition and behavior (Talhelm et al., 2014; Uskul et al., 2008). A thorough discussion of the many mechanisms that are likely to drive the development and maintenance of culture-specific mindsets lies

beyond the scope of this article (see Gutchess & Sekuler, 2019; Henrich, 2015; Laland & Brown, 2002; Markus, 2017; Markus & Conner, 2014; Richerson & Christiansen, 2013; Riemer et al., 2014). Additionally, though we have argued against the idea that ancient philosophical traditions have shaped modern cultural mindsets, *other* historical mechanisms must surely produce cultural variation in cognition and behavior. We believe that such historical hypotheses will be necessary to explain the development of cultural mindsets in conjunction with more proximate causes (e.g., parenting practices, perceptual environments). Two compelling examples of how historical mechanisms could shape human thought and behavior include the self-selection for individualistic values that occurs when people migrate to frontier regions (Kitayama et al., 2006) and the large-scale impact of subsistence styles on group organization and thought (e.g., Talhelm et al., 2014). Finally, we note that any theories that attempt to explain current culture-linked behaviors and mindsets on the basis of historical mechanisms should be wary of the distorting processes that we sketched above.

Beyond Psychology: Broader Similarities Between Ancient Philosophical Traditions

Beyond the psychology-relevant similarities between ancient philosophical traditions that we and others have argued for (see Brindley, 2010; Slingerland, 2018), scholars within history, sociology, and philosophy have also argued for broader similarities between ancient philosophical traditions. The Axial Age Hypothesis, for example, asserts that multiple cultures around the world (including ancient Greece and China) experienced similar revolutionary movements in philosophy and religion around the same time period (roughly from the eighth to third centuries BCE); these movements set philosophies of this era apart from previous ways of thinking. This claim is central to the hypothesis in both its original form (Jaspers, 1953)²⁰ and its later forms (e.g., Bellah & Joas, 2012; Eisenstadt, 1986; for a review, see Boy & Torpey, 2013). The status of the Axial Age Hypothesis is contested by some modern scholars (e.g., Provan, 2013; A. Smith, 2015). In particular, some critiques of the original hypothesis accept the idea of strong similarities across revolutionary traditions but argue that such

turns in religion and philosophy have also occurred in time periods and cultures *in addition* to the one originally described by Jaspers (e.g., Assmann, 2012; Hoyer & Reddish, 2019; Mullins et al., 2018). A detailed evaluation of the Axial Age Hypothesis lies beyond the scope of this article, and we do not necessarily endorse it here. Nevertheless, this hypothesis highlights the fact that previous scholars of history have proposed broad *commonalities* between putatively differing cultural traditions, including the traditions to which Heraclitus, Plato, Aristotle, Confucius, Mencius, and Zhuangzi belonged. To the extent that ancient China and ancient Greek cultures *converged* during the Axial Age, it is unlikely that the philosophies of this age can explain how modern cultures have *diverged*.

Conclusions

Drawing upon scholarship from multiple disciplines, cultural psychologists have suggested some intriguing parallels between ancient philosophies and modern psychologies: Reportedly, ancient Greek philosophers were individualistic and analytic like modern Westerners, whereas ancient Chinese philosophers were more collectivistic and holistic like modern East Asians. Here we called these parallels into question by reassessing texts produced by some of the most influential ancient philosophers. In addition to valuing debate and logic, ancient Greek philosophers such as Heraclitus, Plato, and Aristotle strongly prioritized collectivistic themes, including harmony, societal obligations, and holistic thinking, and stressed the importance of social factors in developing character. Conversely, in addition to valuing social harmony, duty, and holistic themes, ancient Chinese philosophers spanning several centuries, including Confucius, Mencius, and Zhuangzi, prioritized analytic and individualistic themes such as dualism, self-focus, individual agency, and the pursuit of self-perfection (Brindley, 2010; Slingerland, 2018; Wang & Li, 2003). Both ancient Chinese and ancient Greek philosophies emphasized themes that are stereotypically associated with *both* East Asian and Western psychological mindsets, and individualistic and collectivistic tendencies alternated within these cultures across the

²⁰ We thank an anonymous reviewer for kindly bringing our attention to the Axial Age Hypothesis.

millennia. Therefore, the parallels that scholars have drawn between ancient philosophies and modern mindsets are difficult to maintain. Since both the weak (predictive) and strong (causal) versions of the proposal that ancient philosophies help to explain modern psychologies depend on these parallels, their absence challenges both versions of this proposal. This proposal has persisted as a prominent candidate explanation for differences between modern East Asian and Western minds for at least 2 decades (e.g., see Gutchess & Sekuler, 2019; Nisbett, 2003; Nisbett et al., 2001; Norenzayan et al., 2002; Peng & Nisbett, 1999; Yama & Zakaria, 2019). Our analysis suggests that cultural psychologists would be better served by prioritizing alternative candidate explanations (e.g., based on social, economic, or ecological factors; Gutchess & Sekuler, 2019; Henrich, 2015; Kitayama et al., 2006; Markus & Kitayama, 1991; Miyamoto et al., 2006; Nisbett, 2003; Talhelm et al., 2014; Uskul et al., 2008; Varnum et al., 2010).

We proposed four psychological and sociopolitical processes that might explain the persistence of scholars' belief in the connection between the ancient philosophies of China and Greece and modern mindsets. Egocentric projection may lead modern readers to attribute their own ways of thinking to philosophers of the past. Familiarity filtering may lead readers to magnify the most familiar parts of ancient texts, which align with their own cultures, and to omit the less familiar parts from their discussion of those texts. Sociopolitical erasure may have driven scholars to emphasize elements of ancient thought that accord well with current social and political perspectives. Construct narrowing may lead to the development of overly specific concepts (e.g., *individualism*), which then impede the identification and productive use of those concepts across different contexts. These psychological and sociopolitical processes that influence our everyday thinking can also play a role in scientists' theorizing. Rather than ancient philosophies helping us to understand modern psychologies, modern mindsets may have acted as lenses that have distorted contemporary views of ancient philosophies.

References

- Abid, A., Farooqi, M., & Zou, J. (2021, July). Persistent anti-muslim bias in large language models. *Proceedings of the 2021 AAAI/ACM Conference on AI, Ethics, and Society* (pp. 298–306). Association for Computing Machinery.
- Aristotle. (1941a). *Nicomachean ethics* (W. D. Ross, Trans.). In R. McKeon (Ed.), *The basic works of Aristotle* (pp. 927–1112). Random House. (Original work published n.d.)
- Aristotle. (1941b). *Physics* (R. P. Hardie & R. K. Graye, Trans.). In R. McKeon (Ed.), *The basic works of Aristotle* (pp. 213–394). Random House. (Original work published n.d.)
- Aristotle. (1941c). *Politics* (B. Jowett, Trans.). In R. McKeon (Ed.), *The basic works of Aristotle* (pp. 1113–1316). Random House. (Original work published n.d.)
- Aristotle. (1966). *Metaphysics* (H. G. Apostle, Trans.). Indiana University Press. (Original work published n.d.)
- Aristotle. (1986). On the movement of animals (M. C. Nussbaum, Trans.). In M. C. Nussbaum (Ed. & Trans.), *Aristotle's De Motu Animalum: Text with interpretive essays*. Princeton University Press. <https://doi.org/10.1515/9780691219486> (Original work published n.d.)
- Assmann, J. (2012). Cultural memory and the myth of the axial age. In R. N. Bellah & H. Joas (Eds.), *The axial age and its consequences* (pp. 366–407). Harvard University Press. <https://doi.org/10.4159/harvard.9780674067400.c15>
- Baumeister, R. F., Dale, K., & Sommer, K. L. (1998). Freudian defense mechanisms and empirical findings in modern social psychology: Reaction formation, projection, displacement, undoing, isolation, sublimation, and denial. *Journal of Personality*, 66(6), 1081–1124. <https://doi.org/10.1111/1467-6494.00043>
- Behuniak, J. (2019). Slingerland, Edward, mind and body in early China: Beyond orientalism and the myth of holism. *Dao: A Journal of Comparative Philosophy*, 18(2), 305–312. <https://doi.org/10.1007/s11712-019-09666-3>
- Bellah, R. N., & Joas, H. (Eds.). (2012). *The axial age and its consequences*. The Belknap Press of Harvard University Press. <https://doi.org/10.4159/harvard.9780674067400>
- Blackson, T. A. (2011). *Ancient Greek philosophy: From the Presocratics to the Hellenistic philosophers*. Wiley-Blackwell.
- Boy, J. D., & Torpey, J. (2013). Inventing the axial age: The origins and uses of a historical concept. *Theory and Society*, 42(3), 241–259. <https://doi.org/10.1007/s11186-013-9193-0>
- Brewer, M. B., & Gardner, W. (1996). Who is this “we”? Levels of collective identity and self representations. *Journal of Personality and Social Psychology*, 71(1), Article 83. <https://doi.org/10.1037/0022-3514.71.1.83>
- Brindley, E. F. (2010). *Individualism in early China: Human agency and the self in thought and politics*.

- University of Hawai'i Press. <https://doi.org/10.1515/9780824860677>
- Bywater, I., & Patrick, G. T. W. (1969). *Heraclitus of ephesus*. Argonaut Publishers.
- Capra, F. (1975). *The Tao of physics*. Shambhala Publications.
- Casasanto, D., & Staum Casasanto, L. (2011, May). *Seeing others' through our own eyes: Bodily characteristics anchor judgments* [Poster presentation]. Proceedings of the 23rd Annual Convention of the Association for Psychological Science, Washington D.C.
- Chua, H. F., Bolland, J. E., & Nisbett, R. E. (2005). Cultural variation in eye movements during scene perception. *Proceedings of the National Academy of Sciences of the United States of America*, 102(35), 12629–12633. <https://doi.org/10.1073/pnas.0506162102>
- Du Bois, W. E. B. (1987). The souls of White folk. In N. Huggins (Ed.), *W.E.B. Du Bois: Writings* (pp. 923–938). Library of America. (Original work published 1920)
- Eisenstadt, S. N. (Ed.). (1986). *The origins and diversity of axial age civilizations*. State University of New York Press. <https://doi.org/10.1353/book10189>
- Epley, N., Morewedge, C. K., & Keysar, B. (2004). Perspective taking in children and adults: Equivalent egocentrism but differential correction. *Journal of Experimental Social Psychology*, 40(6), 760–768. <https://doi.org/10.1016/j.jesp.2004.02.002>
- Gallegos, I. O., Rossi, R. A., Barrow, J., Tanjim, M. M., Kim, S., Dernoncourt, F., Yu, T., Zhang, R., & Ahmed, N. K. (2024). Bias and fairness in large language models: A survey. *Computational Linguistics*, 50(3), 1097–1179. https://doi.org/10.1162/coli_a_00524
- Gutchess, A., & Sekuler, R. (2019). Perceptual and mnemonic differences across cultures. In K. D. Federmeier (Ed.), *Psychology of learning and motivation* (Vol. 71, pp. 131–174). Academic Press. <https://doi.org/10.1016/bs.plm.2019.06.001>
- Hamilton, E. (1942). *The Greek way* (2nd ed.). W.W. Norton.
- Henrich, J. (2015). *The secret of our success: How culture is driving human evolution, domesticating our species, and making us smarter*. Princeton University Press. <https://doi.org/10.1515/9781400873296>
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences*, 33(2–3), 61–83. <https://doi.org/10.1017/S0140525X0999152X>
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage Publications.
- Holmes, D. S. (1968). Dimensions of projection. *Psychological Bulletin*, 69(4), 248–268. <https://doi.org/10.1037/h0025725>
- Hoyer, D., & Reddish, J. (2019). *Seshat history of the axial age*. Beresta Books.
- Iliev, R. I., & Ojalehto, b. I. (2015). Bringing history back to culture: On the missing diachronic component in the research on culture and cognition. *Frontiers in Psychology*, 6, Article 716. <https://doi.org/10.3389/fpsyg.2015.00716>
- Irvine, J. T., & Gal, S. (2000). Language ideology and linguistic differentiation. In P. V. Kroskrity, (Ed.), *Regimes of language: Ideologies, politics, and identities* (pp. 35–84). School of American Research Press.
- Jaspers, K. (1953). *The origin and goal of history* (M. Bullock Trans.). Routledge & Kegan Paul. (Original work published 1949)
- Ji, L. J., Peng, K., & Nisbett, R. E. (2000). Culture, control, and perception of relationships in the environment. *Journal of Personality and Social Psychology*, 78(5), 943–955. <https://doi.org/10.1037/0022-3514.78.5.943>
- Kitayama, S., Ishii, K., Imada, T., Takemura, K., & Ramaswamy, J. (2006). Voluntary settlement and the spirit of independence: Evidence from Japan's "northern frontier." *Journal of Personality and Social Psychology*, 91(3), 369–384. <https://doi.org/10.1037/0022-3514.91.3.369>
- Laland, K. N., & Brown, G. R. (2002). *Sense and nonsense: Evolutionary perspectives on human behaviour*. Oxford University Press.
- Lloyd, G. E. R. (1990). *Demystifying mentalities*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511607691>
- Lloyd, G. E. R. (1996). Science in antiquity: The Greek and Chinese cases and their relevance to the problems of culture and cognition. In D. R. Olson & N. Torrance (Eds.), *Modes of thought: Explorations in culture and cognition* (pp. 15–33). Cambridge University Press.
- Lupyan, G., Uchiyama, R., Thompson, B., & Casasanto, D. (2023). Hidden differences in phenomenal experience. *Cognitive Science*, 47(1), Article e13239. <https://doi.org/10.1111/cogs.13239>
- Markus, H. R. (2017). American = independent? *Perspectives on Psychological Science*, 12(5), 855–866. <https://doi.org/10.1177/1745691617718799>
- Markus, H. R., & Conner, A. (2014). *Clash!: How to thrive in a multicultural world*. Penguin.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224–253. <https://doi.org/10.1037/0033-295X.98.2.224>
- Masuda, T., Gonzalez, R., Kwan, L., & Nisbett, R. E. (2008). Culture and aesthetic preference: Comparing the attention to context of East Asians and Americans. *Personality and Social Psychology Bulletin*, 34(9), 1260–1275. <https://doi.org/10.1177/0146167208320555>

- Masuda, T., & Nisbett, R. E. (2001). Attending holistically versus analytically: Comparing the context sensitivity of Japanese and Americans. *Journal of Personality and Social Psychology*, 81(5), 922–934. <https://doi.org/10.1037/0022-3514.81.5.922>
- McKone, E., Davies, A. A., Fernando, D., Aalders, R., Leung, H., Wickramariyaratne, T., & Platow, M. J. (2010). Asia has the global advantage: Race and visual attention. *Vision Research*, 50(16), 1540–1549. <https://doi.org/10.1016/j.visres.2010.05.010>
- McWilliams, N. (2020). *Psychoanalytic diagnosis: Understanding personality structure in the clinical process* (2nd ed.). Guilford Press.
- Miyamoto, Y., Nisbett, R. E., & Masuda, T. (2006). Culture and the physical environment: Holistic versus analytic perceptual affordances. *Psychological Science*, 17(2), 113–119. <https://doi.org/10.1111/j.1467-9280.2006.01673.x>
- Mullins, D. A., Hoyer, D., Collins, C., Currie, T., Feeney, K., François, P., Savage, P. E., Whitehouse, H., & Turchin, P. (2018). A systematic assessment of “axial age” proposals using global comparative historical evidence. *American Sociological Review*, 83(3), 596–626. <https://doi.org/10.1177/0003122418772567>
- Murstein, B. I., & Pryer, R. S. (1959). The concept of projection: A review. *Psychological Bulletin*, 56(5), 353–374. <https://doi.org/10.1037/h0040177>
- Nietzsche, F. W. (1977). Thus spoke Zarathustra: A book for all and none. In W. Kaufmann (Ed.; Trans.), *The portable Nietzsche* (pp. 103–439). Penguin Books. (Original work published 1883–1892)
- Nisbett, R. E. (2003). *The geography of thought*. The Free Press.
- Nisbett, R. E., & Masuda, T. (2003). Culture and point of view. *Proceedings of the National Academy of Sciences of the United States of America*, 100(19), 11163–11170. <https://doi.org/10.1073/pnas.1934527100>
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review*, 108(2), 291–310. <https://doi.org/10.1037/0033-295X.108.2.291>
- Norenzayan, A. (1999). *Rule-based and experience-based thinking: The cognitive consequences of intellectual traditions* (Publication 3019552) [Doctoral dissertation, University of Michigan]. ProQuest Dissertations & Theses.
- Norenzayan, A., Smith, E. E., Kim, B. J., & Nisbett, R. E. (2002). Cultural preferences for formal versus intuitive reasoning. *Cognitive Science*, 26(5), 653–684. https://doi.org/10.1207/s15516709cog2605_4
- Peng, K., & Nisbett, R. E. (1999). Culture, dialectics, and reasoning about contradiction. *American Psychologist*, 54(9), 741–754. <https://doi.org/10.1037/0003-066X.54.9.741>
- Peng, K., Spencer-Rodgers, J., & Zhong, N. (2006). Naive dialecticism and the Tao of Chinese thought. In U. Kim, K.-S. Yang, & K.-K. Hwang (Eds.), *Indigenous and cultural psychology: Understanding people in context* (pp. 247–262). Springer. https://doi.org/10.1007/0-387-28662-4_11
- Plato. (1977). *Phaedo* (G. M. A. Grube, Trans.). Hackett Publishing. (Original work published n.d.)
- Plato. (1991). *The republic of Plato* (A. Bloom, Trans.). Basic Books. (Original work published n.d.)
- Plato. (1995). *Phaedrus* (A. Nehamas & P. Woodruff, Trans.). Hackett Publishing. (Original work published n.d.)
- Plato. (1996). *Parmenides* (A. K. Whitaker, Trans.). Focus Philosophical Library. (Original work published n.d.)
- Plato. (1999a). Crito. In B. Jowett (Trans.), *The essential Plato* (pp. 547–567). Quality Paperback Book Club. (Original work published n.d.)
- Plato. (1999b). Meno. In B. Jowett (Trans.), *The essential Plato* (pp. 419–471). Quality Paperback Book Club. (Original work published n.d.)
- Plato. (2011). Cratylus. In J. Sachs (Ed. & Trans.), *Socrates and the sophists* (pp. 157–222). Focus Philosophical Library. (Original work published n.d.)
- Provan, I. (2013). *Convenient myths: The axial age, dark green religion, and the world that never was*. Baylor University Press.
- Qin, X. A., Koutstaal, W., & Engel, S. A. (2014). The hard-won benefits of familiarity in visual search: Naturally familiar brand logos are found faster. *Attention, Perception, & Psychophysics*, 76(4), 914–930. <https://doi.org/10.3758/s13414-014-0623-5>
- Richerson, P. J., & Christiansen, M. H. (Eds.). (2013). *Cultural evolution: Society, technology, language, and religion*. MIT Press. <https://doi.org/10.7551/mitpress/9780262019750.001.0001>
- Riemer, H., Shavitt, S., Koo, M., & Markus, H. R. (2014). Preferences don’t have to be personal: Expanding attitude theorizing with a cross-cultural perspective. *Psychological Review*, 121(4), 619–648. <https://doi.org/10.1037/a0037666>
- Ross, L., Greene, D., & House, P. (1977). The “false consensus effect”: An egocentric bias in social perception and attribution processes. *Journal of Experimental Social Psychology*, 13(3), 279–301. [https://doi.org/10.1016/0022-1031\(77\)90049-X](https://doi.org/10.1016/0022-1031(77)90049-X)
- Simons, D. J., & Chabris, C. F. (1999). Gorillas in our midst: Sustained inattention blindness for dynamic events. *Perception*, 28(9), 1059–1074. <https://doi.org/10.1068/p281059>
- Slingerland, E. (2018). *Mind and body in early China: Beyond orientalism and the myth of Holism*. Oxford University Press.
- Slingerland, E. (2019). Response to Jim Behuniak. *Dao: A Journal of Comparative Philosophy*, 18(3), 485–488. <https://doi.org/10.1007/s11712-019-09681-4>

- Smith, A. (2015). Between facts and myth: Karl Jaspers and the actuality of the axial age. *International Journal of Philosophy and Theology*, 76(4), 315–334. <https://doi.org/10.1080/21692327.2015.1136794>
- Smith, H. A. (2021). Mind and body in early China: Beyond orientalism and the myth of Holism. By Edward Slingerland. *Journal of the American Oriental Society*, 141(2), 445–450. <https://doi.org/10.7817/jaos.141.2.2021.rev016>
- Spencer-Rodgers, J., Peng, K., Wang, L., & Hou, Y. (2004). Dialectical self-esteem and east–west differences in psychological well-being. *Personality and Social Psychology Bulletin*, 30(11), 1416–1432. <https://doi.org/10.1177/0146167204264243>
- Spencer-Rodgers, J., Williams, M. J., & Peng, K. (2010). Cultural differences in expectations of change and tolerance for contradiction: A decade of empirical research. *Personality and Social Psychology Review*, 14(3), 296–312. <https://doi.org/10.1177/1088868310362982>
- Talhelm, T. (2019). Why your understanding of collectivism is probably wrong. *APS Observer*, 32(9). <https://www.psychologicalscience.org/observer/why-your-understanding-of-collectivism-is-probably-wrong>
- Talhelm, T., Zhang, X., Oishi, S., Shimin, C., Duan, D., Lan, X., & Kitayama, S. (2014). Large-scale psychological differences within China explained by rice versus wheat agriculture. *Science*, 344(6184), 603–608. <https://doi.org/10.1126/science.1246850>
- Theophrastus. (1916). *Enquiry into plants, Volume I: Books 1–5* (A. F. Hort, Trans.). Harvard University Press. https://doi.org/10.4159/DLCL.theophrastus-enquiry_plants.1916 (Original work published n.d.)
- Theophrastus. (1976). *De Causis Plantarum* [On the causes of plants] (B. Einarson & G. K. K. Link, Trans.). Harvard University Press. https://doi.org/10.4159/DLCL.theophrastus-de_causis_plantarum.1976 (Original work published n.d.)
- Toulmin, S., & Goodfield, J. (1965). *The fabric of the heavens: The discovery of astronomy and dynamics*. Harper and Row.
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96(3), 506–520. <https://doi.org/10.1037/0033-295X.96.3.506>
- Uskul, A. K., Kitayama, S., & Nisbett, R. E. (2008). Ecocultural basis of cognition: Farmers and fishermen are more holistic than herders. *Proceedings of the National Academy of Sciences of the United States of America*, 105(25), 8552–8556. <https://doi.org/10.1073/pnas.0803874105>
- Varnum, M. E., Grossmann, I., Katunar, D., Nisbett, R. E., & Kitayama, S. (2008). Holism in a European cultural context: Differences in cognitive style between central and east Europeans and Westerners. *Journal of Cognition and Culture*, 8(3–4), 321–333. <https://doi.org/10.1163/156853708X358209>
- Varnum, M. E., Grossmann, I., Kitayama, S., & Nisbett, R. E. (2010). The origin of cultural differences in cognition: The social orientation hypothesis. *Current Directions in Psychological Science*, 19(1), 9–13. <https://doi.org/10.1177/0963721409359301>
- Wang, Q. (2013). *The autobiographical self in time and culture*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199737833.001.0001>
- Wang, Q., Cavanagh, P., & Green, M. (1994). Familiarity and pop-out in visual search. *Perception & Psychophysics*, 56(5), 495–500. <https://doi.org/10.3758/BF03206946>
- Wang, Q., & Li, J. (2003). Chinese children's self-concepts in the domains of learning and social relations. *Psychology in the Schools*, 40(1), 85–101. <https://doi.org/10.1002/pits.10071>
- Yama, H., & Zakaria, N. (2019). Explanations for cultural differences in thinking: Easterners' dialectical thinking and Westerners' linear thinking. *Journal of Cognitive Psychology*, 31(4), 487–506. <https://doi.org/10.1080/20445911.2019.1626862>

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