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Separating “Things” from “Objects” for the History of Opium Addiction: A Philosophical Reappraisal of Latour’s ANT

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Abstract:

Latour’s endeavor to unite the dichotomic categorizations of “objects” and “things” in the ANT-based reality has inherent limitations. Therefore, the author undertakes three enterprises. First, with the theoretical reinforcements of realist philosophy, we shall appreciate why “things” and “objects” cannot be treated as two related manifestations of the same entity. Second, by exemplifying the Victorian history of medicalized opium addiction, this article suggests a divorce of the “humanistic things” from the “nonhuman objects” through which ANT (actor-network theory) is refined by moral externalism and interaction theory to explain the about-face of British drug values. Third, the epistemological argument of how the de-unification of “things” and “objects” in ANT can facilitate us to combat the “invasions” of what Latour vehemently called the “conspiracy theorists” is explicated. Taken together, the take-home message is that the ontology of an ANT-based reality is not about contextually integrating things with objects, but about distinguishing facts from concepts.

Keywords: ANT (actor-network theory); Things; Objects; History of opium addiction; Externalist moral philosophy; Theory of interaction

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Introduction

In an attempt to counteract the wrongs of “critical barbarians (aka the conspiracy theorists)”, Latour maintained in his 2004 discourse that the factuality and certainty of constructionist philosophy are achievable if we were to start marrying the “concern of things” with the “fact of objects” in a grand context of ANT’s reasoning improvements (Latour 2004). By passionately denouncing climate change deniers in the beginning paragraphs, the father of science and technology studies rebutted the polemics which, in his view, maliciously exploited the ANT characterizations of scientific knowledge as something of subjectivity to please their evil needs of opposing what is supposed to be “the undeniable truth” (Latour 2004). Accordingly, he used the metaphor of mugs and cans, thereby

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indicating the inter-transformation of things and objects in a reality where the spiritualities of human concerns constantly turn themselves into the physicality of factual beings, and vice versa (Latour 2004). Needless to say, it was through such unification of humanity and substantiality that Latour tried to convey a point of how the social constructionism of science and technology has contributed to the establishment of objectivity in the rationalizations of nature and society. Emphatically, in order to eliminate the vulnerability of ANT in the war with conspiracy theorists, he insisted on the inseparability of things and objects when accusing the dichotomy between our cognitions and external worlds as being a fragmented and armchair portrayal of reality (Latour 1999a; 2004).

Frankly, I worry about the future of critique as Latour did in 2004. There are so many unfounded conspiracy theories in our times that even the nonhuman and non-contextual science is receiving skepticisms and suspicions. Personally, I have met with people who, for some reasons unknown to rationality and critical thinking, still wholeheartedly believe in the fabricated stories of why the Riemann Hypothesis is a “big lie” in mathematical history. Like what the French philosopher of social constructionism had judged about the need to defend rational thinkers against the critical barbarians dismissing the American moon landing as a hoax, we too, are expected to develop an “intellectual weapon” which persuades laymen to duly respect the factual impartiality of the function conjecture proposed by the German mathematician. Having said that, I do not agree with Latour’s ANT-based idea of simply amalgamating conspiracy theories (i.e., a matter of concern) with tangible technicalities (i.e., a matter of fact), not least because it unintentionally risks the emergence of extreme relativism that further empowers the critical barbarians to discredit the fundamental veracity of material existences by making all kinds of outrageous and ridiculous claims about how a bidirectional and mutually-inclusive metamorphosis of things and objects corroborates the relativist and bias-centering refutation of universal actuality (Luckhurst 2006; Stamenkovic 2020).

Rather, the best way to handle the illiteracy of such people as global warming controversialists and the Riemann Hypothesis objectors is to acknowledge their propositions as “a thing of human subjectivities” which is independent of “the objects of concrete facts” in the overall structure of our world. In doing so, we restore the dualist separation of spirituality and factuality in the system of reality formation so that we don’t have to unconditionally accept the messages delivered by the barbaric interpretations of real occurrences even though they exist alongside with the objective entities. Instead of ardently debating with the conspiracy theorists, we only need to understand the underlying reasons for which their beliefs and poorly informed logics are being encompassed in the makings of phenomenalism and realism.

Take Saberwal’s study on perception and reality (1996). It was asserted that one element through which the all-inclusive world inhabiting biological organisms and material matters finds reality is our explanations and thoughts (Saberwal 1996). By extension, mankind’s effort to picture the realist representations of everything is also a foundational part of permitting all beings on this earth to be involved in the production and display of manifestations, so to speak (Grant 2015). Expressed differently, the spiritual domains in which human minds functionally maximize their cognitive and perceptive capacities to make sense of palpable universe and social developments are at the same time an intrinsicality that allows the whole of our reality to take shape (Trager 2019). Along these lines, we will be able to comprehend how the discourse articulations of intellectualized views are different from the actual objectivity of substantial existences (Baggerman and Durston 2017). To paraphrase Latour, without supplementing the factuality of nature, we generate constructionist and idealist elucidations by employing observations, inscriptions, transmutations and translations of the very objects that we come across in the physical world (Latour 1996; 1999a). Indeed, some of these elucidations which may lack capability to mirror the

truthfulness of concrete actualities due to human subjectivity’s expected detachment from the material reality are destined to include conspiracy theories and fabricated accounts. Nevertheless, just because barbaric critiques are an attribute for us to realize realism, it doesn’t mean that we ought to unite them with objectivity. After all, a thing of human concerns can be both existent and false. Figuratively, the purpose of admitting conceptualized beliefs’ role in the construction of overall reality is to not miss the forest of everything in this world for the trees of futilely disproving the likes of climate change deniers.

Thus, for upgrading the ANT in light of promoting academic authority for the philosophy discipline, we are required to pivot our attentions away from the “Latourian laments” which issued us with unnecessary discussions on anti-fetishism and fact position to show how “ideological things” and “material objects” are to be fused into one entity (Latour 2004). Specifically, this article begins its life by highlighting the reductionist statement that human concerns can be divorced from factual matters when the ontology of reality is appraised in the pre-2004 framework of ANT (Blok and Jensen 2011). To achieve this, the author will cite the history of opium addiction in considerations of the externalist moral philosophy and the interaction theory to expound why Latour was initially right about distinguishing between “people” and “sciences” as two different actants in the explorations of ANT-based realism before he suffered a quasi-crisis of faith in the first decade of 21st century (Blok and Jensen 2011). Evidently, this article then gains novelty by reinforcing the dichotomic classifications of “things” and “objects” originally implied in ANT which were sadly abandoned by the French philosopher nineteen years ago.

Notably, as a drug historian, I have been constantly told that the philosophical analysis of medical history is most unusual and very unconventional. However, to quote Lorenz, “doing history is a more philosophical activity than most historians realize (1994).” Moreover, “historians can profit from philosophy because ‘doing history’ can be improved by philosophical insight (Lorenz 1994).” In actuality, Yu has already engaged in the examinations of Chinese medical history which have heavily focused on the historiographical philosophies of plagues and public health in medieval China (Yu 2022). On this wise, the multidisciplinary convergence of drug historiography and constructionist philosophy forms the basis of a theoretical improvement for ANT as well as the narcotic history.

With the dualist identification of realist world as a network comprised of minds and substantial items and the additions of externalist moral philosophy and interaction theory to the ANT, it is easy to see the revisionist grounds on which the author utilizes the historical U-turn of opium values and the technological advancements of drug science to estimate the de-unification of “things” and “objects” in the “Latourian realm.” Furthermore, through the orthodoxy-reviving modifications of ANT, I will functionalize my “knowledge of narcotic historiography” in the hope of illustrating the “correct” form of reality probe laid bare in the *Laboratory Life* (Latour and Woolgar 1986; Collins 1988).

Seemingly, the earliest scholarly campaign to frame our memories about opium abuse from the perspectives of addiction medicalization and sociocultural dynamics was inadvertently spearheaded by Berridge and her contemporaries. In 1980s, she wrote that “the reality of the [diseased narcotic addiction] was affirmed, but medical values were not scientifically autonomous; and the moral and class analysis which, reformulated, lay at the basis of disease theory justified increased medical intervention where the profession apparently even by the end of the century had little to offer (Berridge and Edwards 1987).” Meanwhile, Courtwright explained the socialization of public morality by which clinical studies on opium dependence helped the establishment of prohibitionist drug regime in the 20th century US (Courtwright 1982; Peters 1983). Similarly, Peters and Harding, on two separate occasions, related the ANT-styled interactions between medical sciences and human thoughts that forged the reality of narcotic control (Peters 1981; Harding 1988). Taken in tandem, the notion of disuniting the Latourian marriage of things and objects is becoming

increasingly credible in terms of what senior drug historians have connoted about treating opium ethics (i.e., a thing of concerns) and medicalization of addiction (i.e., an object of facts) as two different elements in the realist dimension of narcotic history.

To encapsulate, when it comes to the intellectualization for the historical clinicalization of opiate misuses, the concrete actuality stemming from the disciplinary developments of drug science has always been sharing a duality with humanity’s opium morality. Granted that they are persistently interacting with one another to materialize the reality in which the international war on drugs has defined our current relationship with the addictive substances, mankind’s opioid values and the pathology of narcotic dependence can never be recognized as a phenomenalist unity in the theorization of realism. Otherwise, we will not be able to explicate the causality between which such human ideologies as anti-imperialism, liberalism and penal welfarism brought about the end of unregulated opium trade in late 19th and early 20th centuries through the amplification and promotion of medical professionals’ scientific discoveries of diseased addiction (Rimner 2018; Gibbon 2020). Above all, judging by Inglis’ remarks concerning the so called “differentiation of number games and personal experiences” in our opium memories, we can understand why it is philosophically logical to divide the factuality of the narcotic’s pharmaceutical properties from human minds in a history depicting the reality of drugs against the continuous progress of time (Inglis 2019). Therefore, with regard to what Kim (2020) has done in her inquiry of colonial vice, the contention is explicit that, for the reappraisal of ANT, constructionist philosophers and narcotic historians have to recognize the dichotomous system of realist world in which the psychological spirituality of things interacts with the factual substantiality of objects to form what we would consider as observable existences of phenomenism and realism (e.g., the current status of drug criminalization).

In turn, this article reaches a stage at which the author defies Latour’s 2004 enterprise of foregrounding the “post-truth” unity of human concerns and tangible objectivity in the ANT-based reality by referencing the epistemological comprehension of realist philosophy in the wake of applying the opium historiography to the methodological practices of Latourian critique (Kofman 2018). As such, we can avoid what some deemed as “the French philosopher’s unfair treatments of poststructuralism and epistemology” to reinvigorate the intellectual authority of rationales and reasonings against the backdrop of conspiracy theorists poisoning the minds of crowds (Flatscher and Seitz 2020; Latour 2004). Particularly, the paradigm with which philosophical constructionists and critical thinkers use to structure the theory of knowledge needs to be bettered to reflect how beliefs interact with facts to manifest the realist world so that the barbaric interpretations of relativist nature can also be an enduring being in our epistemological realm even if they were, to put it mildly, imagined and groundless. In other words, by upholding the divorce between humanity and substantiality, conspiracy theories obtain their places in the ANT-based reality without distorting the evidence-gathering rationalities of various sorts. Thereafter, we can cognize and simultaneously reject the untruthful elucidations.

The Separation of Things from Objects in ANT by Realist Philosophy

First and foremost, I want to make myself absolutely clear that I believe in an undeniable coexistence of minds and mind-independent entities in our reality even though I am a philosophical constructionist for most part of my academic career. In my view, the delineation of all things in this physical universe by Bradley as the “dualist collective of existence and character” did not bring realism and constructionism into conflict (1888). On the contrary, without consciously knowing it, the 19th century British idealist ironically paved the way for introducing a representational realism to the “existentialization” of what we call a facts-mirroring reality (Candlish 1989; Sayers 1991). At the center of Bradley’s philosophy, it



was shown that the relativist and ideological representations of objective knowledge were also an ingredient of that knowledge itself when cognitive interpretations were disengaged from the factuality (Bosanquet 1885).

By conceptually reverse-engineering what the idealist philosopher postulated, we acquire an insight to how the realist world is actually a material extension of dichotomous interactions between things of human concerns and objects of substantial truth. What is more, as opposed to the post-truth theory of discerning the reality as a merger of thoughts and tangible beings, the representative realists, who have been accidentally released by Bradley’s metaphysics, emphasize the interactivities betwixt the perception-dominated picturing of constructs and the objective qualities of matters for “chemical reactions of reality-making” to take place (Candlish 1989; Glouberman 1994). In this regard, the Latourian things, which are a “code name” for mankind’s cognitive psychologies, can be said to be in parallel with what the French constructionist described as the objects of fact. For one thing, the ANT exhibits, to some degree, the reasoning traditions of representationalism that intrigue the critical thinkers to elaborate the realist ontology in association with an interactive relationship shared between humanity and substantiality (Kind 2007; Elder-Vass 2008).

Consequently, this article investigates the philosophical mechanism established by ANT to demonstrate why Latour’s explanation of reality is to be improved in a realist fashion that separates things of concern from objects of actuality. To begin with, we need to firstly remind ourselves of what the father of science and technology studies and others said about “doing ANT and doing ANT on ANT (Gad and Jensen 2010).”

In 1987, Latour speculated about practicalizing the framework of dualist representational realism in his ANT surveys by publishing the *Science in Action* (Latour 1987). Afterwards, he unwittingly furthered this pattern of engraving the marks of realist critique on the “bones” of his philosophy to sustain the weight of a Latourian argumentation that relied on differentiating the “non-human facts” from the “human ideas” in the fabric of reality to generate influences and enlightenments (Latour 1991). Likewise, in the *Aramis*, the French philosopher illustrated how the sociopolitical mindsets of the mass prevented the technological developments, thus revealing a de-unification of things and objects in the structure of realist world formation (Latour 1993). Yet, all of these discussions on identifying ANT-based reality as a dichotomy between subjectivity and factuality were abruptly terminated in 1996 when Latour started to underscore “the circulation and the movement of actors in the networks of phenomena (Latour 1996).” Hence, in the immediate years prior to the watershed moment of the infamous “2004 incident,” the father of science and technology studies changed the course of his research by suddenly devoting most of his time to assess the “shifting motion” of a dynamic ANT (1999b). Concurrently, Law and Hassard stressed that everything involved in the ANT system “is traveling endlessly through circulations (1999).” Later, Luckhurst related the entanglement of ideas and sciences in the daily continuations of universe which was recognized by Latourian thinkers as the “new truth of reality (2006).” Recently, Latour challenged what he termed “the subject/object division” to visualize for the readership of the *An Inquiry Into Modes of Existence* an anthropological modality of the ANT realism (Latour 2013; Tresch and Latour 2013).

Based on the contents of the above paragraph, two judgements can be made on the developmental chronology of ANT. First, before the final decade of 1900s, the path along which Latour rode the horse of philosophical wisdom would eventually lead him to a destination that had the majestic tower of “the division of things from objects in reality” as its prominent landmark. Supposedly, this was how the Latourian specialists achieved their intellectual successes, should they stop short of imagining a scenario where “doing ANT” just wasn’t enough. On this ground, with such assessment in mind, we encounter the second judgement which sees the efforts by the French philosopher to unite humanity with

substantiality in late 20th and early 21st centuries as a perfect case in point for realizing the self-amending methodology of “doing ANT on ANT.” Like I said, after enduring the pains caused by the conspiracy theorists, Latour woke up to the danger of allowing a “post-truth” world to prosper uncontrollably. In desperation, he fell into the trap of self-doubt that forced him to work out an alternative for the sake of combating ignorance. Expectedly, the “Latourian revision” culminated in a declaration which promoted a hybrid of subjectivity and objectivity for the reasoning structure of ANT-based realism by performing an ANT examination on what was essentially the ontology of ANT. From this we get a restructured expression of Latour’s philosophy that contextually revolves around a “reality metamorphosis” in which manifestations are frequently shifting back and forth from things to objects. Put simply, with the desire to “explain” the fundamental characters of barbaric critiques, the father of science and technology studies assimilated their logics and therefore challenged the complementary coexistences of ideas and materials in the duality of realist world unmasked by the representational realism.

While Latour’s analytical and revisionist methods to polish the ANT were epistemologically sound, I question his philosophical evaluation which denounced the subject/object division as a compromised articulation of the brains in the vats (Latour 1999a). Especially, in the “post-truth” era, the author has thought about the proper handling of conspiracy theories that can acknowledge the perceptive beings of absurd claims without granting them validity and authenticity. In fact, the motive for the French philosopher to dismantle the boundary betwixt human psychologies and physical objects in 2004 was the wish to rationally domesticate the “21st century monster of philosophy (i.e., the fabricated stories)” created by the “new Dr. Frankenstein (i.e., the conspiracy theorists)” amid the ongoing crisis of factual degradation. But what he did wrong was that he destroyed the basics of intellectual formulation in the name of critique revolution.

If we take a step back from all of these “Latourian panics” for a moment, it becomes obvious that an ontological clarification of irrational interpretations’ discourse power will be sufficient to revitalize the explanatory authority of ANT in the face of growing skepticism cultivated by critical barbarians’ tireless endeavor to discredit sciences. Namely, we have to ascertain the factors which contribute to the massive influences of narrative manipulations. The benefit of doing so is that Latour’s disciples can begin to understand why actors in the ANT system are to be classified in a realist manner which designates everything in a phenomenological collective as being either a thing or an object. Thus, we are back at the original starting point where the dichotomic categorizations of “subjectivity” and “substantiality” in the ANT-based reality is an inevitable yet logical deduction to elaborate how the inaccurate beliefs observed in conspiracy theories are a part of the all-embracing universe’s overall picture in the absence of factual verifications. In brief, from the ontology’s standpoint, ideas have helped the trans-populational spreads of lies and made-up stories despite their subjective artificiality because “physicality” is accompanied by “autonomous human concerns” in the existentialization of reality.

Nonetheless, the realist duality requires philosophical modifications for the ANT refinement. The conviction is that we need to uncover the essence of a relationship shared between subjects and facts since Latourian thinkers always treat the world as a network of associations. That is, in a foundational sense, the self-materialization of our reality as a lived-through experience is achieved by the phenomenological reactions resulted from the reciprocal interactions among the ANT collectives of things and objects. In views of Chen’s interactive theory and externalist moralism, this article argues for an interplay betwixt humanity and substantiality which produces the mutual influences to shape the Latourian manifestation of opium history in this realist world (Chen 2022; Zangwill 2003). By way of illustration, we shall finally comprehend why the separation of human psychologies from factuality in the ANT-based system by philosophical realism is appropriate for us to devise the

revisionist methods of doing ANT on ANT given Latour’s emphasis on interactions and the dire need to battle the conspiracy theorists.

Estimating “Things” and “Objects” in the ANT-Based History of Opium Addiction

For generations, drug historians from nations on both sides of the Atlantic Ocean have been greatly intrigued by the unforeseen and drastic turnabout of British opium morality in the late 19th century. As a matter of course, it is commonly thought that historical explanations about the arrival of prohibitionist narcotic sentiments in Britain at the end of 1800s can assist the policy makers worldwide to optimize the efficacy of contemporary opioid controls (Chen 2022). That being the case, specialists of drug history have been tasked with significant and impactful undertakings to preserve our opium memories which would play a major role in the reconstruction of a past reality for addictive substances. Probing these undertakings in accordance with their epistemological attributes sets the condition for us to estimate the dichotomic categorizations of “objects” and “things” in the ANT-based history of opium.

According to Inglis, technicalities are as important as emotional psychologies when we try to inquire the complicated actuality of narcotic consumption against the passage of time (2019). By implication, in connection with constructing the realist representation of opium’s past, we must embrace a dualist structure within which human perceptions about drug dependence have constantly interacted with the physiological and chemical sciences of addiction to occasion the materializing happening of an opiate reality.

On account of what is said about the divorce of things from objects in the ANT philosophy of realism, the duality of narcotic addiction’s scientific medicalization and the advent of British anti-opiumism in history is amounted to the dichotomy between substantiality and humanity in the revised Latourian certitude. Subsequently, the surveys for opium dependence in Victorian Britain can be categorized into studies of nonhuman sciences and examinations of human concerns in line with the author’s reappraisal of ANT. Specially, Berridge was one of the most influential drug historians to take on the assignment of investigating opiate addiction by discoursing on the hypodermic use of morphine in Britain in late 1800s (Berridge and Edwards 1987). By the same token, Lefebure described how Humphry Davy had experimented with opioids in laboratory to come up with clinical explanations for the symptoms of diseased addiction (1979). Also, the conceptualization of addiction as a pharmacological abnormality was elucidated by a 1981 paper (Peters 1981). Then, Jack and Laugher related a historical analysis of opium assay that gives us an overview of British drug chemistry in 19th century (1982). Later, Derks reviewed the statistical data for opiate consumptions and narcotic purifications in the Qing China which mirrored the technological advancements of drug science in the Far East in the years post the end of Opium Wars (2012). Manifestly, everything in the above-mentioned literature is about historically featuring the “scientification” of narcotic dependence as an object in the opium reality that exists in parallel with our subjectivities. Correlating drug moralities with Latourian things for the theoretical formulation of narcotic-centered realism is an entirely different topic of discussion.

Hence, on the other hand, there are people whose dedications are found in their constructionist and interpretive assessments of what I refer to as “opiate humanity (Chen 2022).” For instance, under different circumstances, Chandola and Harding evaluated the sociopolitical backgrounds against which opium addiction became a “moralist affair” in 19th century Britain (Chandola 1976; Harding 1986). Comparably, a 1996 book by Lodwick enabled us to gauge how religious conscience motivated the Protestant missionaries to embark on a decades-long “drug crusade” in the dynastic and revolutionary China (1996). Additionally, the socialization, culturalization, politicalization and internationalization of an increasingly

apparent Victorian recognition that habitual narcotic use was a problematic vice were studied by academics including Caquet and Rimner (Caquet 2015; Rimner 2018). Recently, Kim penned an *Empires of Vice* in which the readers get an opportunity to contextualize mankind’s relationship with opium in the values-driven bureaucracy of colonial states (2020). In short, what we are seeing here is that a good portion of research works for opiate history concentrates on the ideological dimension of drug dependence. Ultimately, the past reality of pharmaceutical entities surpasses factuality in some senses because, as much as we would like to scientize the medicalization of narcotic addiction, thoughts and beliefs have always been independently existent in the consumption history of opioids (Yu 2022). Undoubtedly, the frequent employment of the term “opium ethics” in the aforementioned writings indicates a strong presence of human concerns in the issue formation of drug indulgence. Therefore, the author sees no reason why the Latourian things are to be excluded from the whole of a realist world inhabiting the phenomenological manifestations of narcotic dependence.

However, establishing the dichotomic categorizations of subjectivity and objectivity in the historical reality of opioids is insufficient to demonstrate the philosophical betterments which, once functionalized, would effectively remedy the logical weakness observed in ANT. At the end of the day, doing battles against the post truth conspiracy theories requires the author and like-minded Latourian thinkers to reflect on “the inter-actions of agencies” since Latour viewed all facets of this universe as network systems of relationships (Martin 2005; Wakeham 2017). Put another way, with the aim to right the individualist misrepresentation of knowledge in a realist inspection of world’s anatomy, we ought to detail the qualitative characters of ANT-styled interrelations that have built the foundation for the opiate realism to exist. Eventually, this is to outline the reasoning model around which barbaric critiques are exposed as ill-informed intelligentsias with little understanding on the appropriate uses of critique (Lynch 2012).

Naturally, this article is now well-suited to assume the mission of confirming the separation of things from objects in the ANT-based reality of opium addiction history by taking into consideration the theory of interaction and moral externalism (Chen 2022). In essence, the current opiate historiography dictates that our memories about the narcotic have been the end product of a series of reactions in which non-mystical facts of opium interacted with humanity’s drug-centered psychologies to generate “chemistries” for the existential occurrences of opioid prohibitions in the historical realm (see Buxton et al. 2020). By deduction, without the complement of “opiate substantiality,” a mere writing of the drug’s humanized influences impairs the full portrayal of a realist past for substance addictions. Conversely, the same can be said of excluding the “opiate humanity” from the factual discourses on the narcotic history. No wonder Inglis began her cultural examination of opium history with the botanical and pharmaceutical descriptions for the *Papaver Somniferum* (2019). Yet, as a demonstration of what it is like to do exactly the opposite, a 1995 study by Morson objectively reported the antique condition of some ancient opium-weights that, in the absence of sociocultural interpretations, the essay contents are underwhelming, to say the least (Morson 1995).

Candidly speaking, reconstructing the historical reality of drug dependence demands a Latourian framework in which the philosophical identification of opium phenomena as the collective network of interactions should become the key to intellectualizing the narcotic-centered realism. As proposed by scholars, the history of opiate addiction is all about the interactive relationship shared between humanity and the drug in question (Chen 2022; Plant 1999). Therefore, the analyses of how human cognitions responded to the biological and medical factualness of narcotic abuse are to be a prominent part of the ANT revision when we disunite “things” from “objects” to combat the conspiracy theorists in a post truth war. To rephrase, for the sake of preventing rational critiques from outliving their logical

usefulness, this article spotlights the “subject/object division” observed in the realist materialization of opium’s past to hammer in the verdict that, although the interplay of opioid substantiality and humanistic perceptions has defined the structural integrity of an ANT-based universe in the historical surveys of drug realism, students of social constructionism need to be cautious about equating the idea appreciations with truthfulness.

In this respect, nothing is better than the *Confessions* in exemplifying the author’s statement pertaining to the dualist reevaluation of Latourian philosophy’s methodology. Generally, experts address the importance of acknowledging spirituality in De Quincey’s “opium experiences” as of 2023 (Fay 2010; Strang 1990). What is noteworthy here is that, in addition to exhibiting the narcotic as a source of cultural enlightenments for the English writer, the specialists of literature and history also discussed the public controversies surrounding the disturbing documentations of diseased addiction found in the *Confessions* (See Morrison 2013). De Quincey’s self-damning of opiate misuse from which the prohibitionist drug morality emerged is given a special attention by today’s scholarship for the humanization of opium history.

Understandably, debates on the ideological and literary roots of British drug control cannot satisfy this article’s appetite for rationales. Thus, the author, who is a revisionist thinker of ANT, would like to speak the language of representational realism when presenting the formulation of opiate addiction in the *Confessions* as a Latourian event.

On the whole, we can get a layered interpretation for the ANT-centric ontology of drug dependence from investigating the English opium eater’s condemnations against his narcotic-filled walk of life in a dualist way that practicalizes the representative doctrine upheld by some realists. Taken at face value, the heated disputes in the early 19th century ignited by the controversial *Confessions* connoted a British fondness for the habitual use of opioids. If De Quincey’s lifetime saw an unmistakable presence of opiate hostility, there would be a measurable discount at which his addiction-lamenting book sold its influences. The fact that the publication of *Confessions* marked the beginning of a Victorian anti-opium movement has displayed for us the extent to which the British society in the first half of 1800s actively consumed the drug. And this gives the ANT revisionists like me an opportunity to think about how truthfulness can occasionally be incompatible with the existence of human ideas in a reality where, in the framework of interactive theory, the “chemical reaction” betwixt subjectivity and substantiality is the underlying mechanism for universe construction. In simple terms, the Victorian popularity for opium, which can be explained by an amended Latourian philosophy as having derived from the interplay of our craves for cures and the narcotic’s medical potency, was in effect a false conceptualization comparable to that of modern conspiracy theories. Bluntly, the truth deprivation characterizing the widely-circulating nonsense of the so called “opiate miracle” in 19th century Britain comes back to haunt us again in the 21st century by manipulating the same ignorance that has laboriously rebuffed rationalities behind the medicalization of narcotic addiction in the 1800s and the institutionalization of a climate-friendly regime in the 2000s. So, the unlettered bigotry of critical barbarians and their followers is really not worthy of us to have a post-truth crisis of epistemology, let alone give serious responses.

But our journey to locate a sanctuary for the revised ANT in the land of drug history continues. In recalling what I said about “the De Quincey controversy” as having layers in its phenomenological makeup, we will find an internal film of ontological constructs beneath the surface of “moralization of narcotic dependence” which provides us with an alternative scenario of how the reciprocal interactions of things and objects can strengthen the healthy unfolding of a realist world when all appropriate factors are in place. By this I mean the introduction of moral externalism to the gradual development of drug prohibitions.

From a materialist angle, objective externality determines humanistic activities. As the result, externalist thinkers of philosophical moralism promote the view that mankind’s ethics

are an extension of physical universe (Wong 2006; Zangwill 2003). In this way, we can utilize the substantial realm’s causal relationship with human psychologies to achieve the theoretical betterments of ANT by showing that the moralization and criminalization of opium abuse in Britain was the aftermath of a “chemical reaction” between ideologies and such tangible beings as communication technologies, clinical sciences and economic growths.

In reference to the investigation conducted by Bonea and her team, the impacts of telecommunications on the narcotic attitudes in the 19th century Victorian society have been thoroughly explored to exposit an assertion about how an externality-induced sentiment changed Britons’ ethical perception for opium (2019). Relevantly, analyses are found in Holloway’s masterpiece that have regarded the growing awareness of accidental opiate poisonings in Victorian Britain as the fruit of knowledge advancements in clinical studies (1991). Lastly, Pollard noted the powerful influences of outstanding economic performance which “could comprehensively shape the tone, the good temper and the humanity of political and public life (2014).”

By acting as a revisionist Latourian philosopher, I cannot help but think of what has been quoted above as a practical answer to the question of why ANT can be used to rationalize the historical reality of drug dependence. Put differently, communication technologies, developments of professional practices and social accumulation of wealth are the “appropriate factors” of externalist origin that have interacted with the “soul” of Victorian mass to form a realist world for the morally justified opiate memories. Thus, the misrepresentation of opioids as a cure-all was eliminated in this case because, with the “factual guidance” of the progressively accurate substantiality of narcotic, the mutual interplay between things and objects inherently created a feedback of penal welfarism to the ANT system for the realist conceptualization of addiction through which a blinded enthusiasm for drug indulgence in the previous Victorian society was “corrected” to prepare the continuation of history for a prohibitionist world of opium realism in the 21st century. In a nutshell, the degree of existentialization for conspiracy theories like the contemporary false beliefs pertaining to the misuse of addictive substances in 19th century Britain has been relative to the balance of objective truthfulness and humanity’s ability to “psychologically absorb these truths.” Since the term “reality” itself encompasses the baseless stories, we can’t avoid possible encounters with critical barbarians. Yet, with a rightful ratio of factuality to logical soundness, we have a choice not to be harmed by them either. As a final note, the author shall now explicate how the “lessons” learned in our historical examination of British narcotic dependence can help us understand the epistemological containment of conspiracy theories by the revised interpretation of ANT interactions.

Battling the Conspiracy Theorists: An Epistemological De-Unification of “Things” and “Objects” in ANT

In the *Pandora’s hope*, Latour recounted a scientific expedition during which he tried to diagnose the theoretical faultiness in the existing interpretations of ANT (1999a). Pointedly, he refused accepting divorce of things from objects as a fundamental element to understand reality by arguing that, on their research trip to the Amazon Forest, the inscription, translation and transmutation of natural samples carried out by his fellow scientists of multidisciplinary expertise were tantamount to a unification of humanity and substantiality (Latour 1999a). In consequence, there was a tacit suggestion in his re-assessment of scientific philosophy which preferred to omit the uncrossable boundary separating subjective ideas from the non-contextual science.

Ironically, the danger of being convinced by this Latourian explanation is the unintentional opening of a truly devastating Pandora’s box in the critique universe when the

French thinker of social constructionism clearly named his book for a positive and hopeful outlook. As painful as it may be, the author feels the need to point out that, in identifying scientific discussions as an activity of human mind, Latour failed to see how the intellectualization of the “natural philosophers” is vastly different from the unenlightened elucidations generated by the conspiracy theorists. Honestly, the former has credibility due to evidence-based practices and experimental repeatability whereas the latter is just unsubstantiated. It is the differentiation between these two actors of human concerns in the ANT-based reality that this article will now appraise to refute the post truth theories.

Let us go back to what we have discovered about the Latourian version of opium history for one last time. Few paragraphs ago, in association with the revisionist philosophy of ANT realism, I have made a conclusion which accentuates interactions of the humanity and the “appropriate factuality” for the sensible development of the prohibitionist narcotic morality in the late 19th century. Before then, most Britons saw the habit of opiate indulgence as a social norm because, with drug science being virtually non-existent, their understandings of opioids were a historical example of what a conspiracy theory would look like in the Victorian era. Without the care to follow the rules of scientific elaborations, De Quincey and other critical barbarians invented a “truth” of opium dependence that was an outcome of an ANT-styled reaction betwixt the absolute subjectivity and the compromised objectivity. Ontologically, this is how conspiracy theories come into being. And the guarantee of truthfulness doesn’t always go hand in hand with the makings of discourse assertions.

Therefore, a quick revisiting of the Sokal affair will be very helpful for my readership to grasp the idea of condemning critical barbarians from an uninvolved position of strength. As you may be aware, the editors of *Social Text* decided to publish an “essay” by Sokal in 1996 after which the American physicist’s longstanding proposition about the possibility of infiltrating the academic community with nonsense through the competent use of stylistic and sophisticated rhetoric was experimentally and undeniably confirmed (Ross 1997). In relation to the discussions made in this article, we must direct our ANT-cultivated attention to the hidden motivations which encouraged Sokal to go ahead with the infamous “behavioral art.” Apparently, this whole episode was his way to illustrate that some of the most celebrated intellectuals in the history of mankind have been “throwing around scientific jargon in front of their non-scientific readers without any regard for its relevance or even its meaning (Sokal and Bricmont 2011).” By speaking in the Latourian tongue, we can see why these comments are important for critical thinkers to limit the detrimental effects of conspiracy theories.

To reiterate, the father of science philosophy made the network theory of actors an integral element of his critique. That being so, the eventful occurrence of Sokal affair was effectuated by the interaction of a thing (i.e., human misuse of scientific concepts in countless papers) and an object (i.e., the natural science). Such is the reason for which people studying the fashionable nonsense have almost unanimously surveyed Sokal’s deliberate abuse of factuality in the writing of his parody essay (Hilgartner 1997). To be more specific, the textualization and publishing of the American physicist’s “satirical experiment for intellectual writings” attest to the creation of an ANT-based reality for false knowledge which is very much like the existentialization and manifestation of conspiracy theories.

Of course, it is required of us to dispassionately examine the fallacious descriptions provided by the critical barbarians as the realist products of a Latourian interplay between subjectivity and substantiality that have thrived upon the illiteracy of human minds to materialize. Obviously, I am referring to a revisionist framing of ANT established in this article when I say “Latourian interplay.” Underscoring a duality of humanity and factuality in the ANT realism is essential because the post truth marriage of things to objects in the constructionist reality which has triggered endless anxieties in the field of philosophy is nothing but surrendering our common sense to the tyranny of insanity and ignorance.

Arguably, the French philosopher of science and technology doubled down on his proposal of uniting ideologies with tangibility in 2004 to reassure himself of a theoretical stability that is desperately desired by all rational thinkers in an era when logical judgements are greeted with relativist suspicions.

Howbeit, emotions such as panic don’t save us from an exacerbating situation where conspiracy theorists constantly make a mockery of intelligence and wisdom. There is a demand for logical calmness if the critique discipline is to be rejuvenated against the formidable pressure exerted by the makers of bulls.

So here comes that calmness in the form of an epistemological analysis. After this article has clarified for its readership a re-establishment of the subject/object division in a historical reality of opium addiction that serves as a dictate of intellectualization for the prospect prosperity of ANT-based realism, we can see why gross representations of truth including De Quincey’s cultural portrayal of opiate dependence, Sokal’s parody essay and barbaric critiques in general are inevitable as long as the crowds refuse the visit of knowledge enlightenment at their doorsteps. Explicitly, since conspiracy theories take advantage of uneducated subjectivity in human thoughts, their social cultivations and endemic disseminations are the Latourian materialization of a mutually interactive relationship betwixt a thing (i.e., mankind’s ignorant cognition) and an object (i.e., nonhuman and non-contextual factuality). With an outstanding refinement of linguistics, unlearned people can easily fall for the fashionable nonsenses which, in the course of a dualist reaction between concerns and physicality, give rise to a reality of revisionist ANT. In this reality, everything is existent but not true.

Whereupon, we arrive at the final destination of this article’s long tour to explore the Latourian epistemology of conspiracy theory in a revisionist manner. The take-home message is that the ANT-system doesn’t have to self-destruct when confronting critical barbarians. By discerning the phenomenological manifestations of unsound elucidations as a Latourian output of reciprocally interacting actors undergoing the realist reactions of things and objects, we can come to terms with a novel theorization of social constructionism which epistemologically dissects the ontological anatomy of disinformation to unravel the impracticality of inventing a “post-truth philosophy.” Straightforwardly, the ANT-characterized interplays betwixt human psychologies and physical objectivities through which the cognitive faculties of nonsense talkers translate the partial factuality into ill-informed stories allow the barbaric critiques to be existentially real. With this in mind, my readers can start to appreciate that the hastily-devised strategy of employing unification of subjectivity and tangibility in the war against conspiracy theorists is unnecessary. More than that, we can certainly face backfire if climate change deniers and others alike were to incorporate what Latour proposed in 2004 in their arguments. Imaginably, they would just deem every rationality as “fake news” because the father of science and technology studies approved the interchangeability of ideas and facts by way of subject/object unity.

Thus, the revisionist philosophers of ANT need to play the role of an outsider so that we can prevent ourselves from re-suffering Latour’s fate of being trapped in the eternal self-doubt. The ability to be emotionally uninvolved in the handling of conspiracy theories clears our brains for understanding the appropriate response to disinformation. On balance, three points are to be marked with attention. First, the separation of things from objects which conditions the ANT philosophy by the dualist functionalization of representational realism is to be punctuated. Second, it is absolutely crucial for us to recognize that the birth of barbaric critiques is the result of an ANT-styled interaction between the ignorant subjectivity (i.e., a thing) and the impartial factuality (i.e., an object). Third, under the revisionist framework of Latourian constructionism, the actualization of conspiracy theories doesn’t support the judgement of fabricated stories being true. When viewed altogether, these three points surely give us the confidence to treat the fashionable nonsense as nothing more than a daily

and unavoidable normality of intellectual life. Despite our wishful thinking, the logical capability to root out the existence of barbaric critiques through the cultivation of polymath wisdoms is simply not a quality that everybody has. Alas, the accompany of disinformation in this earthly world is always inevitable. More importantly, our job, as the critical thinkers, is to probe the abstract and metaphysical epistemology of conspiracy theories without being distracted by personal feelings.

Concluding Remarks

What Latour wrote in 2004 about the dim future of critical reasoning and the urgency of upgrading ANT are a wake-up call for philosophers reading the social conceptualization of intellectually-disguised nonsense. In his discourse, the French thinker of science philosophy warned us of a growing threat posed by the conspiracy theorists. After questioning the reliability of existing “critique tools,” he basically advocated for a “post-truth” model of theorization. Truth be told, even as I am agreeing with his assessment that the framing of ANT needs a “makeover” to effectively combat the lies spread by critical barbarians, I don’t share Latour’s desperation and pessimism. Opportunely, this article which is on Latourian revisionism is penned to resurrect ANT against the overwhelming influences of disinformation. I have hoped to deliver my message to the intended audience by breaking this article into three sections. To start with, the author has referenced the dichotomy betwixt humanity and substantiality in the reality of dualist representationalism to deny Latour’s effort of uniting things with objects so that the subject/object division can be restored in the ANT-based constructions of everything in this universe. Then, a historiography of opium addiction has been brought in to facilitate the comprehension of a notion which accentuates how the chemical reactions of things and objects in the structural duality of a realist world complete the totality of reality. Plainly, this article has practicalized the externalist moral philosophy for the inquiry of British anti-opiumist sentiment in late 19th century to demonstrate the functioning of interactive relationships for the formation of a world encompassing both ideas and materials. Finally, in an epistemological sense, this article ends with a conclusion that, as Latourian specialists, we don’t have to suffer a crisis of faith when we realize the inevitability of ignorance and the normality of using the revised ANT to appraise nonsensical stories as a daily affair in the critique life. In the main, the problem of conspiracy theories penetrating every aspect of society has nothing to do with the incompetence of critical thinkers. We must confidently declare the proclamation of the philosophy discipline continually having plenty of steams.

References

- Baggerman, Ton and Durston, Sarah. 2017. *The Universe, Life and Everything: dialogues on our changing understanding of reality*. Amsterdam University Press, 7-14.
- Berridge, Virginia and Edwards, Griffith. 1987. *Opium and the People: Opiate Use in Nineteenth-Century England*. Yale University Press, 170, 135-150,
- Blok, Anders and Jensen, Torben Elgaard. 2011. *Bruno Latour: Hybrid Thoughts in a Hybrid World*. Routledge.
- Bonea, Amelia., Dickson, Melisa., Shuttleworth, Sally. and Wallis, Jennifer. 2019. *Anxious Times: Medicine and Modernity in Nineteenth-Century Britain*. The University of Pittsburgh Press.
- Bosanquet, B. 1885. Mr. F. H. Bradley on Fact and Inference. *Mind*. 10 (38): 256-265.
- Bradley, F. H. 1888. Reality and Thought. *Mind*. 13 (51): 370-382.
- Buxton, Julia; Chinery-Hesse, Mary and Tinasti, Khalid. 2020. *Drug Policies and Development: Conflict and Coexistence*. Brill.



- Candlish, Stewart. 1989. The Truth About F. H. Bradley. *Mind*. 98 (391): 331-348.
- Caquet, P. E. 2015. NOTIONS OF ADDICTION IN THE TIME OF THE FIRST OPIUM WAR. *The Historical Journal*. 58 (4): 1009-1029.
- Chandola, Harish. 1976. The Politics of Opium. *Economic and Political Weekly*. 11 (23): 832-833.
- Chen, Xianle. 2022. Surpassing Factual Preservation: An Interpretive Approach to the Constructionist Pharmaceutical History. *Transversal: International Journal for the Historiography of Science*. (13): 1-22.
- Collins, H. M. 1988. Reviewed Work: Laboratory Life: The Construction of Scientific Facts by Bruno Latour, Steve Woolgar. *Isis*. 79 (1): 148-149.
- Courtwright, David T. 1982. *Dark Paradise: Opiate Addiction in America before 1940*. Harvard University Press.
- Derks, Hans. 2012. *History of the Opium Problem: The Assault on the East, ca. 1600-1950*. Brill, 643-708.
- Elder-Vass, Dave. 2008. Searching for realism, structure, and agency in Actor Network Theory. *British Journal of Sociology*. 59 (3): 455-473.
- Fay, Elizabeth. 2010. Hallucinogenesis: Thomas De Quincey’s Mind Trips. *Studies in Romanticism*. 49 (2): 293-312.
- Flatscher, Matthias and Seitz, Sergej. 2020. Latour, Foucault, and Post-Truth: The Role and Function of Critique in the Era of the Truth Crisis. *Le foucauldien*. 6 (1): 1-23.
- Gad, Christopher and Jensen, Casper Bruun. 2010. On the Consequences of Post-ANT. *Science, Technology, & Human Values*. 35 (1): 55-80.
- Gibbon, Luke. 2020. Opium’s long shadow: from Asian revolt to global drug control. By Steffen Rimner. London: Harvard University Press. 2018. 368 pp. £31.95. ISBN978 0 67497 630 6. Available as e-book. *International Affairs*. 96 (3): 811-812.
- Glouberman, Mark. 1994. P. F. Strawson and the Ghost of F. H. Bradley. *The Jerusalem Philosophical Quarterly*. 43: 243-263.
- Grant, Iain Hamilton. 2015. Everything. *The Monist*. 98 (2): 156-167.
- Harding, Geoffrey. 1988. *Opiate Addiction Morality and Medicine: From Moral Weakness to Pathological Disease*. Palgrave Macmillan UK.
- Harding, Geoffrey. 1986. Constructing addiction as a moral failing. *Sociology of Health & Illness*. 8 (1): 75-85.
- Hilgartner, Stephen. 1997. The Sokal Affair in Context. *Science, Technology, & Human Values*. 22 (4): 506-522.
- Holloway, S.W.F. 1991. *Royal Pharmaceutical Society of Great Britain 1841-1991: A Political and Social History*. Pharmaceutical Press.
- Inglis, Lucy. 2019. *Milk of Paradise: A History of Opium*. Pegasus Books, xix.
- Jack, D. and Laughler, S. 1982. The earliest demonstration of the placental passage of morphine? *Pharmaceutical Historian*. 12 (2): 7-8.
- Kim, Diana S. 2020. *Empires of Vice: The Rise of Opium Prohibition Across Southeast Asia*. Princeton University Press.
- Kind, Amy. 2007. Restrictions on Representationalism. *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*. 134 (3): 405-427.
- Kofman, Ava. 2018. Bruno Latour, the Post-Truth Philosopher, Mounts a Defense of Science. *New York Times*: <https://www.nytimes.com/2018/10/25/magazine/bruno-latour-post-truth-philosopher-science.html>
- Latour, Bruno. 2013. *An Inquiry Into Modes of Existence*. Harvard University Press.
- Latour, Bruno. 2004. Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern. *Critical Inquiry*. 30 (2): 225-248.
- Latour, Bruno. 1999a. *Pandora’s hope: essays on the reality of science studies*. Harvard University Press, 1-23, 26-31, 1-23, 24-79, 60-66,
- Latour, Bruno. 1999b. On recalling ANT. *The Sociological Review*. 47 (1): 16-25.

- Latour, Bruno. 1996. On actor-network theory: A few clarifications. *Soziale Welt*. 47 (4): 369-381.
- Latour, Bruno. 1993. *Aramis or the love for technology*. La Découverte (France) and Harvard University Press (US).
- Latour, Bruno. 1991. *We Have Never Been Modern*. Harvard University Press, 12-15.
- Latour, Bruno. 1987. *Science in Action: How to Follow Scientists and Engineers Through Society*. Harvard University Press, 6-8.
- Latour, Bruno and Woolgar, Steve. 1986. *Laboratory Life: The Construction of Scientific Facts*. Princeton University Press.
- Law, John and Hassard, John. 1999. *Actor Network Theory and After*. Blackwell Publishers, 17.
- Lefebure, M. 1979. Held with a Glittering Eye: Humphry Davy as a Poet-Philosopher. *Pharmaceutical Historian*. 9 (3): 3-7.
- Lodwick, Kathleen L. 1996. *Crusaders Against Opium: Protestant Missionaries in China, 1874-1917*. The University Press of Kentucky.
- Lorenz, Chris. 1994. Historical Knowledge and Historical Reality: A Plea for “Internal Realism.” *History and Theory*. 33 (3): 297-327.
- Luckhurst, Roger. 2006. Bruno Latour’s Scientifiction: Networks, Assemblages, and Tangled Objects. *Science Fiction Studies*. 33 (1): 4-17.
- Lynch, Paul. 2012. Composition’s New Thing: Bruno Latour and the Apocalyptic Turn. *College English*. 74 (5): 458-476.
- Martin, Andrew. 2005. Agents in Inter-Action: Bruno Latour and Agency. *Journal of Archaeological Method and Theory*. 12 (4): 283-311.
- Morrison, Robert (ed.). 2013. *Thomas De Quincey: Confessions of an English Opium-Eater and Other Writings*. Oxford: Oxford University Press, xxxi.
- Morson, A. 1995. Opium Weights. *Pharmaceutical Historian*. 25 (3): 3-4.
- Peters, Dolores. 1983. Reviewed Work: Dark Paradise: Opiate Addiction in America before 1940 by David T. Courtwright. *Journal of the History of Medicine and Allied Sciences*. 38 (2): 213-215.
- Peters, Dolores. 1981. The British Medical Response to Opiate Addiction in the Nineteenth Century. *Journal of the History of Medicine and Allied Sciences*. XXXVI (4): 455-488.
- Plant, M. 1999. Opium and the People: Opiate Use and Drug Control Policy in Nineteenth Century England. *British Medical Journal*. 319 (7202): 131.
- Pollard, S. 2014. *The Wasting of the British Economy*. Routledge, 1.
- Rimner, Steffen. 2018. *Opium’s Long Shadow: From Asian Revolt to Global Drug Control*. Harvard University Press
- Ross, Andrew. 1997. Reflections on the Sokal Affair. *Social Text*. (50): 149-152.
- Saberwal, Satish. 1996. On Reality: Its Perception and Construction. *Sociological Bulletin*. 45 (2): 161-188.
- Sayers, Sean. 1991. F.H. Bradley and the Concept of Relative Truth. *Radical Philosophy*. 59: 15-20.
- Sokal, Alan and Bricmont, Jean. 2011. *Intellectual Impostures*. Profile Books, x.
- Stamenkovic, Philippe. 2020. The contradictions and dangers of Bruno Latour’s conception of climate science. *Disputatio*. 9 (13): 00-00.
- Strang, John. 1990. Lessons from an English opium eater: Thomas De Quincey reconsidered. *International Journal of Addictions*. 25 (12): 1455-1465.
- Trager, Eugene P. 2019. The Concept of a Non-Material Reality. *CrossCurrents*. 69 (2): 174-183.
- Tresch, John and Latour, Bruno. 2013. Another turn after ANT: An interview with Bruno Latour. *Social Studies of Science*. 43 (2): 302-313.
- Wakeham, Joshua. 2017. Bullshit as a Problem of Social Epistemology. *Sociological Theory*. 35 (1): 15-38.

- Wong, David. 2006. Moral Reasons: Internal and External. *Philosophy and Phenomenological Research*. 72 (3): 536-558.
- Yu, Gengzhe. 2022. *From Diseases to Ideas: A Rediscovery of Social History in Medieval China* (in Chinese). Zhonghua Book Company.
- Zangwill, Nick. 2003. Externalist Moral Motivation. *American Philosophical Quarterly*. 40 (2): 143-154.
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