Artifact Concept Pluralism

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Abstract: We have a rough idea of what artifacts are: artifacts are objects made to serve a certain purpose. However, there is no consensus on how to specify this definition. Essentialists argue that objects are grouped into artifact kinds by sharing non-trivial artifact essences, while anti-essentialists argue that there is no such essence to be found. However, the prominent essentialist and anti-essentialist accounts suffer from extensional and definitional problems. I argue that the problems current essentialist and anti-essentialist accounts face mainly stem from the assumption of *artifact concept monism*. According to artifact concept monism, there is only a single way to group objects into artifact kinds. To remedy the problems that stem from artifact concept monism, this paper offers an alternative framework by drawing parallels from the debates on species concept pluralism and art concept pluralism.

The rapidly growing literature on artifacts revolved mostly around finding non-trivial artifact essences, while dissenting voices pointed out the plurality of artifact kinds and raised legitimate concerns about the applicability of any essence for artifacts and artifact kinds. I call the first endeavor *artifact essentialism* and the latter *artifact anti-essentialism*. Both essentialists and anti-essentialists, implicitly or explicitly, share the same assumption: that there is only one legitimate artifact concept that we can profitably use. I call this view *artifact concept monism*. I argue that the current state of artifact essentialism cannot provide an extensionally adequate and definitionally coherent overarching concept. The extensional and definitional problems I point out led some anti-essentialists to give up on classificatory aims and others to doubt the primacy of metaphysics on the topic of artifacts. In this paper, I aim to offer an alternative to artifact concept monism. I call my view *artifact concept pluralism*. I argue that artifact concept pluralism

provides a better framework to deal with the problems artifact essentialism face. Furthermore, it enables us to bring metaphysical and epistemic considerations together without giving up on the classificatory aims and requiring a significant revision in our taxonomical practices.

That said, this paper's main methodological leaning is clear: practices come first. According to David Davies (2004), an ontologist of art should not put forward metaphysical principles before examining the practices closely; art practices impose a 'pragmatic constraint' on metaphysical accounts. As Davies (2004, 18) describes this pragmatic constraint, "Artworks must be entities that can bear the sorts of properties rightly ascribed to what are termed 'works' in our reflective and critical and appreciative practice…" Similarly, in this paper I assume that artifact practices impose a 'pragmatic constraint' on metaphysics of artifacts. This does not mean that artifact practices are final arbiter of our best metaphysical account, rather our rational reconstruction of the output of the relevant practices determines our metaphysical accounts. However, as artifact practices are (even) less uniform than art practices and given the problems current monistic accounts face, I argue, a responsible form of pluralism is needed to account for artifact practices.

Following Kathrin Koslicki (2008, 201), I take kinds as "taxonomic classifications under which particular objects may be grouped based on shared characteristics of some sort". Accordingly, an artifact concept is what singles out the relevant characteristics required for artifact kind membership. Artifact concept monism assumes that there can only be one way of grouping entities under artifact kinds and thus it assumes that there is an overarching artifact concept. Artifact concept pluralism rejects this assumption. I construct a model of artifact concept pluralism following Christy Mag Uidhir and P.D. Magnus's proposal on the art concept pluralism. According to Mag Uidhir and Magnus (2011, 91-92), there are at least four art

concepts, in other words, there are four ways of grouping art objects, and each way of grouping has its own strengths and weaknesses. Mag Uidhir and Magnus (2011) draw their art concept pluralism on the model of species pluralism. According to species pluralism, there are several ways of grouping organisms into species. Both models guide this project of artifact concept pluralism. Drawing on these models and taking the output of relevant practices seriously, artifact concept pluralism proposes that there are multiple correct ways of grouping entities into artifact kinds.

1. Artifact Essentialism

John Locke famously distinguished the real essence of things from their nominal essences (Locke, *Essay*, Book III, chap.III, §15, cf. Thomas Reydon 2014, 127). The former is generally construed as the mind-independent nature of things, whereas the latter depends on how the relevant minds conceive of entities (Reydon 2014, 127). Although Locke was pessimist on finding real essences of things, in the case of natural kinds, those authors who prefer semantics put forward by Kripke (1980) and Putnam (1975) seek out kinds whose nature is constituted by mind-independent essences (Thomasson 2007a, 54). For instance, in the case of a natural kind term like gold, all gold atoms share the same atomic structure, and this structure is discoverable by the relevant scientific practices. This mind-independent essence of gold, in turn, fixes our reference to the term ‘gold’ and enables us to distinguish genuine gold from fool’s gold (Reydon 2014).

Some suggest that a similar strategy applies to artifact kind terms and claim that functions can serve a reference fixing role for artifact kind terms (Putnam 1975; Kornblith 1980). Others argue further that some artifact kinds have mind-independent nature akin to natural kinds (Elder

2007; Franseen 2007). However, it is not at all clear that the traditional distinction between mind-dependent and mind-independent essences and its bearing on reality is uncontroversial (Reydon 2014, 130). Not all natural kinds neatly follow this distinction. For instance, it is now commonly taken for granted that biology failed to provide genetic essences unique to species simply because species are found to be subjected to constant evolutionary change (Reydon 2014, 131). A new form of essentialism is on the rise in the philosophy of science (Boyd 1999a, b; 2000; 2010, cf. Reydon 2014)

According to the new essentialism, the essences need not be non-relational properties. The paradigmatic cases are biological kinds. Historical and relational properties are now considered as part of biological kinds' essences (Reydon 2014, 130-131). The new form of essentialism is also suitable to accommodate artifact kinds. After all, possible candidates for artifact essences refer to how artifacts are being used, why they are reproduced, etc. Having briefly elucidated both forms of essentialism, I formulate essentialism about artifact kinds broadly as follows:

> *Artifact Essentialism:* Necessarily, for all x, if x is an artifact, then there's some essence E such that x has E, and x is a member of artifact kind K in virtue of E.

I will consider Artifact Essentialism as a condition about kind essences as opposed to individual essences. There are at least two distinct construal of individual essences. First, it might mean a particular instance *i* of the kind *K* essentially belongs to *K*. On this understanding, *i* cannot exist without being a *K* (Bird and Tobin 2017). According to the other construal, individual entities might have essential properties besides the essential properties shared with the other instances of the kinds they belong. For instance, if we agree with Kripke (1980) on origin essentialism, then being a child of my parents is an essential property of me while it is not an essential property of the kind *human*. Having made the distinction between individual and kind essences, we can state

that throughout this paper a kind essence E indicates a non-trivial essential property or a set of properties that are shared by the members of an artifact kind. For instance, if artifact essentialism is best understood in terms of functions, one would expect individual chairs to have the function of *seating a single individual*, and by this functional property, one could assess whether a given chair is a proper chair, or a malfunctioning chair or a non-chair (e.g. a chair beyond repair).

To make my discussion more exhaustive, I take artifact essentialism to be neutral on traditional and new forms of essentialism. The most commonly discussed artifact kind essences (E) are the following (Grandy 2007; Vega-Encabo and Lawler 2014; Koslicki 2018): i) Functions, ii) maker's intentions. I will not provide a detailed explication of any individual account. Having provided the general essentialist outline, I raise two problems against artifact essentialism, namely the extensional problem and the definitional complexity problem. Both problems are raised by Mag Uidhir and Magnus (2011) in their attack against the art concept monism. I follow a similar argument.

1.1 Function essentialism

A quick survey both on the literature and pre-theoretical intuitions shows that functions are the most favored artifact essences.[1] Even many familiar artifacts around us are named after their functions (Baker, 2008). To list a few: screw-driver, corkscrew, pencil sharpener. Hilary Kornblith (1980, 112) writes, "At least, for the most part, it seems that what makes two artifacts members of the same kind is that they perform the same function." Kornblith's statement provides us with the basic intuition behind function essentialism.

[1] Juvshik (2021b) formulates "function essentialism" and attempts to refute it. In this section, I largely benefit from his discussion.

According to Tim Juvshik, function essentialism favors function as the best candidate for artifact essences. To elaborate by an example, a triangle screwdriver and a magnetic screwdriver have distinct designs and perform their function differently. The former's design is more safety-oriented, whereas the latter with the help of magnetic force performs a better job with smaller screws. Yet, they both drive screws. Given the significant multiplicity of form and design, according to function essentialists, functions provide a prima facie suitable artifact essence that can bind various artifacts under a single artifact kind (Preston 2013).

However intuitive the functional characterization of artifacts and artifact kinds is, there is no consensus on how to characterize functions. The first attempt to characterize functions may be taking functions as answers to "what is it there for" questions, which in turn explains "how the thing got there" (Wright 1973, 146-156; Vega-Encabo and Lawler 2014; Juvshik 2021b). For instance, I can use a towel as a cover for my favorite snacks, yet a towel is *for* drying hands, just as the heart is there *for* pumping blood not *for* producing a unique sound. Larry Wright (1973) calls the former function of my towel function *as* and the latter *the* function.[2] The main difference between these two senses of functions is that the latter has the explanatory force that accounts for the historically successful reproduction of, say, towels which the former lacks.

Wright's distinction more or less retained in the subsequent theories of function. Benefitting from the literature on functions, philosophers recently put forward elaborate theories on artifacts. The attempts can be largely divided into two camps: *etiological functionalism* and *intended functionalism*. Emphasizing the etiological aspect of functions while eschewing the intentional properties, Elder, one of the champions of etiological functionalism, suggests that many artifact kinds share a similar nature with natural kinds, these kinds essentially instantiate a

[2] The same distinction is used by many under different headings. Vermaas and Houkes (2003, 262–266 cf. Juvshik 2021b) use standard/accident functions, Evnine (2016) calls it kind-associated/idiosyncratic functions.

cluster of properties that are copied among the members (Elder 2007, 37). The cluster of properties for artifact kinds includes three main elements: particular shape, proper function, and historical placement (Elder 2007, 43). The kinds of objects that satisfy all these elements, in Elder's view, are *copied kinds*. Copied kinds include both natural and artifact kinds without having any ontologically significant difference between them.[3]

However, etiological functionalism leaves us with conclusions that are at odds with our ordinary linguistic practices (Thomasson 2007a; Juvshik 2021b). In Elder's view, for instance, a familiar artifact kind such as *corkscrew* turns out not to be a copied kind since its nature is not specific enough because the shape shows high variations among corkscrews. Thus, this view admits only specifiable artifact kinds like *winged corkscrew* which has a certain shape (e.g. winged), proper function (e.g. *to remove corks*), historically proper placement (e.g. H.S. Heely's 1888 patent) (Thomasson, 2007a). This result is controversial for those who try to account for intuitive artifact kinds such as *corkscrew* and *chair* (Thomasson 2007a; Juvshik 2021b).

Many philosophers, on the other hand, emphasize the intentional aspect of functions rather than the etiological aspect. Artifacts after all, for intended functionalists, are in a significant sense dependent on the activities of conscious agents. Given the importance of intentions of the relevant agents, intended functionalists claim that artifacts have functions that make necessary reference to our "needs, desires, and plans" (Thomasson 2009, 205). Thus, according to intended functionalists, artifacts have *the* functions because their makers bestow them those very functions.

[3]Elder (2004) favors the traditional form of realism according to which an entity is real only if it has a mind-independent nature. That is why he emphasizes on the three mind-independent features that are mentioned here. His account, in fact, shares many interesting elements with the anti-essentialist HPC view I discuss in section 2.1. It is important to point out that one can also formulate an essentialist HPC view based on, for instance, Elder's remarks.

However, this quickly leads to the following problematic cases: Some corkscrews are only produced or used for aesthetic purposes and are not intended to remove any cork. Similarly, some ships and chairs are produced as exhibition ships and chairs (Bloom 1996, 5). We can add motors, cars, guitars, and many other artifacts to the list. Bloom presents these cases as a threat to intended functionalism. Because in such cases, either one should admit that artifact kinds are not united by a shared intended function or that those particular entities are not members of the relevant artifact kinds.

One can defend intended functionalism by underlying the feature of reproductive success that is associated with *the* functions. Chairs, after all, are reproduced throughout the history because they were highly useful in seating people, not because they are good decorative pieces in exhibitions. This is the route, for instance, Evnine takes in his distinction between kind-associated functions and idiosyncratic functions (Evnine 2016, 119-124). For Evnine, the kind-associated function of *chair* is to be sat upon, while if someone produces a chair for exhibition purposes, then *that* chair has an idiosyncratic function (*being an exhibition piece*) in addition to its kind-associated function (*seating a single individual*). Thus, for Evnine, artifact functions are still present even when they are not performed or not intended to be performed (Evnine 2016, 121-124).

Although Evnine's distinction seems to secure kind-associated functions for Bloom's cases, still it suffers from a more serious case: artworks. Artworks are considered as the epitome of artifacts. However, if artifacts are grouped under an artifact kind by their kind-associated functions, then many high esteemed artworks (especially the modern works after Marcel Duchamp's *The Fountain*) of the 20th and 21st century turn out not to be artifacts simply because they lack functions (Koslicki 2018, 218; Juvshik 2021b). Furthermore, even if specific paintings

have functional properties such as invoking religious feelings (e.g. religious paintings), *painting* kind does not seem to have unifying functional properties (Juvshik 2021b). Thus, functional theories can only account for specific art kinds that are produced to fulfill certain functions.

To sum up, etiological function essentialism face the extension problem because the view is extensionally inadequate—it can only provide an arbitrary fineness of grain at best and thus leave out many familiar artifact kinds. In contrast, intended functionalism is better at dealing with intuitive artifact cases, nonetheless, the view suffers from the extension problem as it cannot easily explain Bloom's cases (e.g. exhibition ships). Even if there is a possibility to parry Bloom's cases, many non-functional artworks still constitute a deep extensional worry.

Given the heterogeneity of the artifactual world, some proponents of intended function restricted their domain of inquiry only to cover "technical artifacts" (Baker 2007, 49). This, however, leads to a further problem, namely the definitional complexity problem (Mag Uidhir and Magnus 2011, 85). Mag Uidhir and Magnus (2011, 85) write, "In order to capture art's plurality and thereby avoid extensional worries, definitions often become dangerously complex, borderline arbitrary, or circular." Similarly, in the case of artifacts, delineating a distinction between technical artifacts and non-technical artifacts is not principled (Koslicki 2018, 235; Juvshik 2021b, 19). Because appealing to the "technical artifact" restriction cannot be profitably defined to exclude "technical" artworks (Juvshik 2021b). For instance, the cases of computer art discussed in Dominic MacIver Lopes (2009) show that there are technically complex artifacts that have no obvious function (Juvshik 2021b). Therefore, given the definitional complexities and extensional problems, it seems that both etiological and intentional theories of functions fail to serve as an overarching artifact concept. Acknowledging this problem, Evnine (2016, 129) also admits a kind of pluralism by considering artworks as *sui generis* artifact kinds.

1.2 Intention essentialism

The basic motivation behind intention essentialism is rooted in Risto Hilpinen (1992) and Paul Bloom (1996). Bloom (1996, 10) writes "Someone can create a chair without intending anybody to sit on it, yet it is difficult to see how someone can create a chair without intending it to be a chair." The upshot of Bloom's insights is that function and shape do not provide a stable ground for artifact groupings, but the maker's intention does.

Based on Bloom's insights, Amie Thomasson further defends the essentiality of intentions (Thomasson 2003, 2007a, 2009, 2014). According to her, what lies at the core of artifacts is the maker's intentions:

> Necessarily, for all x and all artifact kinds K, x is a K only if x is the product of a largely successful intention that (Kx), where one intends (Kx) only if one has a substantive concept of the nature of Ks that largely matches that of some group of prior makers of Ks (if there are any) and intends to realize that concept by imposing K-relevant features on the object. (Thomasson 2003, 600)

Unlike functionalist essentialist accounts, Thomasson's intentionalist account does not imply any strict necessary *and* sufficient condition. Even if intention essentialism does not impose strict necessary *and* sufficient conditions, nonetheless, as the above quote shows, Thomasson claims that the maker's intentions are necessary for *all* artifacts. Assuming that Thomasson's intentionalist account constitutes some form of essentialism, it faces several problems. As I focus on the cases which seem to be artifact cases but fail to be one given the definitional restrictions of essentialist accounts, I will leave the discussion of other problems aside.[4] Intention essentialism leaves out what I will call *twilight kinds*.[5] Twilight kinds include kinds such as *path*,

[4] See Koslicki (2018, 226-237) for an extensive list.
[5] Twilight kinds are discussed in Margolis and Laurance (2007) and Koslicki (2018, 219-220). I derive the name "twilight kind" from Koslicki's discussion. Koslicki (2018, 235) claims that if the law of excluded middle does hold, then these cases cast a confusion since they seem to be neither natural kinds nor artifact kinds.

village, *trail*, *footprint*, *doodle*, etc. Members of these kinds are not exhaustively products of intentions. For instance, a path can unintentionally come into existence as a result of many agents' repeated movements from one place to another via the same way (Koslicki 2018, 219). Similarly, people might decide to build shelters in a close range without any intention to create a member of the village kind, yet might end up unintentionally creating a village. Although some members of twilight kinds come into existence unintentionally, still as a kind *path* or *village* we seem to agree on their status as artifact kinds. If some members of these artifact kinds are not intentionally created, then this means those artifact kinds do not share the necessary condition of 'intending to create a kind K' Thomasson (2003) puts forward.[6]

Acknowledging the twilight kinds, Thomasson (2007a, 58n5) slightly restricts her account by limiting her account to cover only "the essentially artifact kinds" members of which are exhaustively produced with the right sorts of intentions. This exclusion, to my knowledge, is not defended thoroughly, except in Juvshik (2021a) to some extent.[7] According to Juvshik (2021a), there are two lines of argument against the intention-dependent nature of artifact kinds: "(1) Artifacts are not necessarily mind-dependent, but most of the artifacts around us happen to be. (2) Artifacts are necessarily mind-dependent, but do not need to be intention-dependent." To defend intention essentialism, Juvshik (2021a) considers five cases: Regarding (1), swamp and modal cases. Regarding (2), accidental creation, mass-production and automated production. Not all of these cases are relevant to my purposes. Leaving out mass-production and automated

[6] It might be useful to note that, the twilight kinds also raise an extensional worry to the functionalist essentialist accounts that take intentions as necessary.

[7] Hilpinen (1992, 66) in a short paragraph suggests twilight cases should be taken as "natural cultural objects", echoing what some archeologists and anthropologists call "naturefact". These are objects crafted by natural forces put into human use, such as rocks used as hammers. Also, like Thomasson, Evnine (2016, 19-20) and Grandy (2007, 24) rule twilight kinds out of their discussion.

production, I will discuss swamp and modal cases later. For now, I will focus on accidental creation. My ultimate critique of intention essentialism will take the form of (2).

The closest case discussed by Juvshik to the twilight cases is the case of accidental creation. Accidental creation is distinct from proper creation because in the former the intention to create *that* item is lacking. His discussion of accidental creation mostly revolves around the cases of failed-attempts-turned-into-new-artifacts. For instance, the piece of bread I forgot in the toaster turns out to be pretty good charcoal for my new drawing. So I accidentally create a new piece of drawing charcoal. However, Juvshik aims to show that there is neither a toast nor a piece of charcoal unless they are *appropriated* in the right sort of way. The moment of my appropriation of the failed toast as a piece of drawing charcoal marks the moment of the new artifact's coming into existence. Appropriation also requires me to have, at least, a basic awareness of the relevant success conditions of making a piece of drawing charcoal.

However, twilight cases do not result from failed attempts. Instead, their coming into existence does not involve *attempting* to create an artifact. Yet, Juvshik might respond that even if some members of twilight kinds are not failed-attempts-turned-into-new-artifacts, they are still non-artifacts unless they are correctly appropriated. If that is the case, then the path formed as a result of my repeated commuting from the barn to the house is not actually a member of the *path* kind. Unlike Thomasson, Juvshik rules out not the kind itself but the unintentional cases. However, this will end up admitting that a large number of twilight cases, even though they share a similar morphological structure with their intentionally created counterparts, are ultimately waiting for an appropriator to confer them a status of artifactuality. I do not think that an archeologist or an anthropologist would accept the result that the unintended path is not created, say, one thousand years ago but at the moment they approve it as a path. Archeologists and

anthropologists discuss the significance of the path for that culture regardless of it being a product of specific intentions. Thus, contrary to Juvshik, I think that the twilight cases amount to genuine artifact cases without requiring a strict intention dependence. Twilight cases can be considered mind-dependent without being intention-dependent since their coming into existence requires the presence of agents with cognitive capabilities.

An intention essentialist might also respond by weakening their account only to require mind-dependence. However, the weakened account would not be helpful in distinguishing many other mind-dependent entities from artifacts. For instance, since the existence of many kinds plants (e.g., seedless grapes) require human activity these plants and animals would be wrongly included in the domain of the overarching artifact concept for which the only necessary condition is being mind-dependent. This strategy, therefore, would not be desirable for an intention essentialist who work in a monistic framework.

Even if one agrees that the twilight cases pose a legitimate worry against intention essentialism, a proponent of intention essentialism can still point out that those cases are a burden for everyone and thereby suggest that those cases are best left out until our most promising theory can account for them (Juvshik 2021a). However, we should not opt for the inference to the best explanation without examining other alternatives in depth. There *is* a neglected alternative. I will outline artifact concept pluralism as an alternative to the artifact concept monism after I challenge artifact anti-essentialism in the next section.

2. Artifact Anti-essentialism

Preceding discussion indicates that there seem to be a plethora of essentialist accounts. In contrast, unfortunately, there is not any fully developed anti-essentialist account. This is the

reason why Koslicki (2018, 237-240) discusses general anti-essentialist frameworks that might apply to the case of artifacts. Here, I will focus on the artifact literature in order to extract some anti-essentialist views.[8]

One anti-essentialist strategy takes artifact groupings as context relative. Thomas Reydon (2014, 133) defers the task of grouping artifacts to particular relevant epistemic contexts. For Reydon (2014, 137), "These epistemic contexts include academic disciplines such as archeology, art history, cultural anthropology, museum studies as well as engineering and design practices." As explicated in the previous section, etiological functions, intended functions, and maker's intentions fail to provide an overarching account. Given the problems they face, each requires some form of domain restriction and thus, for Reydon, to avoid counter-intuitive or arbitrary restrictions we should settle down the ontological questions only after determining the epistemic context (2014, 141). Thus, the main task of a metaphysician (or, in this case, an anti-

[8]As an anonymous reviewer rightly points out, this discussion of anti-essentialist views is not exhaustive. For instance, David Wiggins (2001) rejects artifact kinds as real for lack of determinate identity and persistence conditions. See Soavi (2009) for a more elaborate discussion of Wiggins' views. Leaving out the discussion of anti-essentialist anti-realist views, here, I limit my discussion to realist views. However, here is a foreshadow how pluralism might be considered as a realist position: Those who hold neo-Aristotelian views argue that artifact kinds are primary. According to these views, without knowing which artifact belongs to which primary kind, it is hard to distinguish the allegedly substantial kinds such as *coin* from the phasal kinds such as *coin-in-a-pocket* (Baker 2004, 100). Baker (2004, 100) argues that there is a crucial ontological difference between objects essentially belonging to primary kinds (e.g. *coin*) and merely conventional groupings (e.g. *coin-in-a-pocket*). The former kinds are real, but our ontology cannot accommodate adding the latter. Because adding the latter would result in the proliferation of all sorts of imaginary entities. Pluralism by adopting context relativity seems to disrupt this hierarchy. Given that pluralism is not compatible with hierarchical classification, does this commit pluralism to some form of anti-realism about artifacts or artifact kinds? It certainly commits pluralism to a form of anti-essentialism at least in the sense that there is not a unifying essential structure that applies to artifact kinds. I think for those who assume artifact concept monism the result is worrying. The reason is that artifact concept pluralism leads to the non-existence of overarching artifact concept. However, I believe that pluralism requires one to be anti-realist neither about artifact kinds nor individual artifacts. Consider that, in the case of species pluralism advanced by Ereshefsky anti-realism targets only the "category" of species (1998, 114). Here, category means "the class of all species taxa," where species taxa are groupings of organisms (e.g. Homo sapiens) (Ereshefsky 2007, 404). Ereshevsky remarks that biologists and philosophers discuss the definition of the species category when they discuss the definition of "species" (2007, 404). Thus, species pluralism only rejects that there is a single species category without eliminating species taxa. Similarly, I think artifact concept pluralism needs only to reject that there is a single artifact category without eliminating artifact kinds out of the picture. Pluralism I outline in this paper modestly suggests that there are at least four ways of grouping entities into artifact kinds.

metaphysician) is to track how the different artifact concepts are used in the relevant epistemic contexts.

According to Koslicki (2018), pure context relative solutions of artifact anti-essentialists are not plausible in the case of artifacts. Koslicki (2018, 239) writes, "[…] empirical questions only arise once we have taken as fixed that screwdrivers are primarily intended to be used by agents who wish to engage in certain kinds of actions, viz., to tighten and loosen screws." This implies that we engage with artifacts not on an explanatory basis, but on practical grounds (Koslicki 2018, 239-240). For Koslicki, while we engage with the members of natural kinds to discover their shared properties, what it means for an entity to be an artifact is something we decide before we engage with the candidate entities.

Reydon agrees with Koslicki that the metaphysics of artifacts primarily aims at specifying the general nature of artifacts before we engage with artifacts. However, Reydon (2014, 141) argues that metaphysical approaches, so far, failed to agree on how to specify the general nature of artifacts, that's why it is better left "open". One implication of leaving the nature of artifacts open is that if metaphysical approaches are far from settling on the general nature of artifacts, we should better track how epistemic contexts fare with artifacts, only then can it be decided whether "an overarching metaphysics of artifact kinds is feasible or a pluralist metaphysics is required" (Reydon 2014, 142). Agreeing with Reydon I believe context relativity can help us solve the definitional and extensional problems artifact essentialism faces. However, I do not believe that the solution is purely epistemological. In the remainder of this paper, I will argue for an epistemically informed pluralist metaphysics for which Reydon's discussion paves the way. Once I explicate the form of artifact pluralism I have in mind, I will qualify this claim in section 3. For now, note the following points by Mag Uidhir and Magnus that make pluralism suitable

for both species concept and art concept. I adapt the following points for artifacts.

> Multiple concepts are profitably used by practitioners [1]… Even without a settled [artifact] concept, we can agree on the rough boundaries of many [artifact kinds] [2]… No overarching concept can profitably apply to all instances [3]… Some of the concepts involve an arbitrary fineness of grain [4]… (Mag Uidhir and Magnus 2011, 90)

Artifact anti-essentialists seem to endorse [1] and [3], they use [2] to argue that the nature of the artifact concept is better left open. However, they miss the fact that not only do we agree on the rough boundaries of many artifact kinds, but also on the ways individual artifacts can be grouped under those artifact kinds. The pluralism I motivate in section 3 is also similar to the anti-essentialist proposals in spirit. I take that there is no single way of dividing the artifactual world. Recent theories concentrate on at least four productive artifact concepts: *morphological artifact concept*, *purely intentional artifact concept*, and *intentionalist functional artifact concept*. I argue that even though none of these concepts are extensionally or definitionally unproblematic, still they play distinct yet significant roles both in ordinary talk and other disciplines. Instead of completely withdrawing from classificatory aims or leaving the nature of artifacts unspecified, I suggest that by adopting artifact concept pluralism we can rather focus on the merits of artifact concepts individually. For now, I will turn to another anti-essentialist account that might be based on Richard Boyd's Homeostatic Property Cluster (HPC) view which aims to account for the extensional and definitional problems artifact essentialism suffers from.

2.1 The homeostatic property cluster view

Thomas Reydon (2014) outlines the second anti-essentialist strategy by considering the possibility of artifact kinds being homeostatic property clusters. But he does not expand on it. I

think it would be informative to explicate the HPC view briefly and contrast a possible anti-essentialist view based on the HPC view with the pluralistic metaphysics I have in mind.

Richard Boyd (1999) develops the HPC view for natural kinds. According to the HPC view, members of a certain kind are not united in virtue of necessarily instantiated essences but in virtue of similarities. The similarities among the members of a kind are stable enough to sustain our taxonomical practices. Furthermore, these similarities are not clustered arbitrarily, as Boyd (1999) argues, they result from some "underlying homeostatic mechanisms." One advantage of the HPC view over essentialist proposals might be that it accounts for the flexibility and change in both natural kinds and artifact kinds. The reason is that the HPC view takes the nature of species as open. This means that the HPC view takes the nature of species, contrary to traditional species concepts, is not fixed by some essential properties (Reydon 2014, 134).

However, a quick concern regarding the kind membership conditions arises against the HPC view: How do we assess whether a given organism or an artifact belongs to a certain kind? The answer is not straightforward. The HPC view suggests that there is a property cluster associated with a kind. The properties are not necessary or essential to a given cluster because it can lose some of the associated properties or gain others over time (Reydon 2014, 134). Furthermore, Boyd (1999, 143) claims that not all members of a kind need to instantiate all the properties of a given. For instance, assuming that the kind *chair* has the functional property of *seating a single individual* necessarily, then a functional essentialist would expect all individual chairs to have *that* functional property. However, since the HPC view takes properties as neither essential nor necessary, when adapted to artifact kinds the view admits the possibility of non-functional chairs. Thus, an exhibition chair or a malfunctioning chair (or a chair beyond repair) can be considered as a member of the *chair* kind. The reason is that the HPC view still seems to

work if artifacts instantiate only some properties associated with an artifact kind. Adapting the HPC view to artifacts, one can leave which conditions are minimally necessary and sufficient for an artifact to be a member of an artifact kind as unspecified. Although there are not minimally fixed necessary and sufficient conditions that entities need to satisfy, still this does not mean that the nature of artifact kinds is determined arbitrarily. Similar to the case with species, according to the HPC view, the properties associated with a certain artifact kind might result from certain causal-historical relations. These causal-historical relations might, for instance, include the reproductive history of an artifact kind, being selected for a certain intended function over a certain period which, in turn, might not result in associated properties as stable as in the natural kinds. However, this might be the price an anti-essentialist who argues in the line of the HPC view might willing to pay to account first for the extensional problem artifact essentialism faces and second for the evolutive nature of artifact kinds. One benefit, or for some philosophers an additional cost, of the HPC view is that this form of anti-essentialist account, in turn, might admit accidental creations as well as byproducts that lack intentional properties. Simply because, in this view, artifact kinds do not have their associated properties necessarily or essentially.

Although an anti-essentialist view advanced in these lines seems to account for the extensional problems, the cost is worrying. Eliminating the necessary and essential features from artifact kinds leaves us with vague boundaries, as Reydon (2014, 140) acknowledges: "[t]he HPC view fails to provide membership criteria for kinds." I believe this cost stems partly from assuming the monistic framework at the backdrop because, according to anti-essentialists, if it is not possible to come up with an extensionally adequate overarching artifact concept, then the nature of the overarching artifact concept should be left open.

Consider the following case with anti-essentialism about art concept. To account for the revolutionary artworks of the 20th century that defied the limits attributed to the preceding artworks and art traditions, Morris Weitz (1956) argues that we should regard art as an open concept. This does not mean that the nature of art is lacking, rather it means that there is not any property such that it is necessary for something to be an artwork (Mag Uidhir and Magnus 2011). Similarly, an anti-essentialist view based on the HPC view proposes to account for the flexibility that artifact kinds show at the cost of denying necessary properties. However, just as being an artwork seems to require something to be an artifact, being an artifact seems to require, at least, one necessary property: *being mind-dependent*.

If artifact kinds are not necessarily mind-dependent, in other words, if artifact kinds do not require the presence of agents with cognitive capabilities, then there seems to be no basis for discarding the swamp and modal cases from our artifact ontology (Juvshik 2021a). Swamp artifact cases are cases in which an entity structurally similar to paradigm cases of artifacts comes into existence by sheer luck. Modal artifact cases are artifact cases occurring in a possible world that lacks agents with cognitive capabilities (Juvshik 2021a). A proponent of the HPC view might respond to modal and swamp cases by claiming that those cases lack the causal and historical mechanism required for the existence of the members of the HPC clusters. However, this answer is in tension with the principle claim of the HPC view. Consider the following case: Due to a strange accident of nature a swamp village comes into existence at time t. Then, what would preclude one from arguing that the nature of the *village* kind is changed in a way that, after t, the *village* kind does not have *being mind-dependent* among its associated properties? I can imagine that the proponent of the HPC view might deny that a single case suffices by itself to change the nature of an artifact kind. However, it is not hard to twist the example so that many

modal and swamp villages come into existence over a certain period of time. The point is that I do not see a reason why sufficient frequency of modal and swamp cases would not participate in determining the associated properties of a given artifact kind. As a respond one can insist on the necessity of causal links between human activity and the artifact kinds, but this undermines the HPC view's main thrust as a form of anti-essentialism.

The pluralism I outline in the next section shares the main motivation of an anti-essentialist account based on the HPC view briefly outlined in this paper. That is, to account for the extensional problems without restricting the scope of the term artifact. However, instead of completely eliminating necessary or essential features from the picture, I suggest that we should adopt pluralism without giving up on the mind-dependence condition. Pluralism takes note of the benefits of the artifact concepts individually. Moreover, there are only a limited number of candidate artifact concepts that direct us to fruitful taxonomic practices.

3. Motivating Pluralism

It is not surprising that a single characterization cannot easily capture the nature of all artifacts. This is already implied in many philosophers' discussions. For instance, Thomasson (2014, 46) writes, "The very term 'artifact' is itself used quite loosely, and in many different ways, so there may be no single characterization of what is essential to artifacts that fits best." Bloom, in a similar vein, states that intentions provide the best source for what is essential to artifacts, but not the one that is exactly correct (1996, 20). However, the background assumption of monism remains unchallenged despite the extensional problems monism leads to.

In this section, by outlining how species and art concept monism leave out other widely used senses of these concepts, I aim to draw a parallel to the artifact concept. I argue that in the

case of artifact concept too, the multiplication of senses is not a vice but an advantage. However, this does not necessarily lead us to an unrestricted proliferation of the senses. Classifications such as “objects that can be used either as doorstops or as cleaning supplies” do not guide us to a useful concept (Koslicki 2008, 202).

3.1 Pluralism in other fields and artifact concept pluralism

Biology provides many different species concepts such as the ecological species, the phylogenetic species, the biological species, just to name a few. Marc Ereshefsky (1998) picks out three prominent species concepts that are used by biologists. However, different versions of each concept have pitfalls that leave certain organisms or significantly shared characteristics of those organisms out of the picture.

The phenotypical (i.e. morphological) species concept uses exhibited characteristics of organisms to sort them into species at a given time while ending up disregarding the evolutionary history of species. The biological species concept sorts organisms according to their sexually reproductive capabilities, simply leaving out asexual organisms that reproduce by other means (e.g. vegetative reproduction). The phylogenetic species concept traces the evolutionary ancestry of organisms to situate species in the evolutionary tree of life, however, due to the evolution, the phylogenetic concept does not provide a stable taxonomy (Ereshefsky 1998, 104-106; Mag Uidhir and Magnus 2011, 89).

Similarly, Mag Uidhir and Magnus (2011) argue that there are at least four distinct art concepts that are gainfully used by the philosophers of art. These concepts do not overlap while agreeing in many cases. The aesthetic art concept emphasizes the formal properties of artworks and provides a valuable source of information primarily for perception-related cognitive

inquiries. The historical art concept emphasizes the historical properties of artworks, useful for historical inquiries. Conventional art concept traces the norms governing the art world institutions and practices, providing significant information for sociological and anthropological studies. The communicative art concept focuses on "the representative, semantic and expressive content" of artworks, serviceable for learning and emotion-related cognitive inquiries (Mag Uidhir and Magnus 2011, 92).

According to Mag Uidhir and Magnus (2011, 92), in both types of pluralism, insisting on monism ends up in a parochial understanding of the relevant domains. Arguing for a single overarching concept disregards the other fruitful senses of both the species concept and the art concept. As explicated above, for instance, in the case of species concept the biological species concept does not range over asexual organisms whereas the phenotypical species concept does. Similarly, in the case of art concept, the conventional art concept excludes outsider art, whereas the aesthetic art concept can range over those cases (Mag Uidhir and Magnus 2011, 92). However, admitting pluralism does not mean that all senses of art or species are fruitful. The relevant senses that pluralism should include are epistemically informed, in other words, these concepts must already be in use among the practitioners (e.g. biologists, art critics and historians, philosophers of art). Mag Uidhir and Magnus (2011, 90) name this form of pluralism "responsible pluralism" to distinguish it from "anything goes" approaches. Granted that an epistemically informed responsible pluralism is possible for both species and art concepts, in the remainder of this section, I try to motivate a similar form of pluralism for the artifact concept and defend it against possible objections in section 4.

My aim in this paper is to outline a rough guide for artifact concept pluralism. It is enough for pluralism if I can show at least two different artifact concepts are well-motivated. I

state four. These are morphological, purely intentional, intentionalist functional, and residual artifact concepts. I choose to focus on these four concepts as I believe the combination of these four concepts provides the best result extensionally. Before turning to the relevant domains and purposes, let me first briefly state the candidate concepts I have in mind:

Morphological artifact concept: Considerations regarding shape are undeniably important when it comes to artifacts. According to Malt and Sloman (2007), artifact categorization is not settled on a single feature artifacts display. Shape, function, and intended category membership all play a role in our various ways of artifact groupings. Shape plays an indispensable role in Franssen and Kroes's (2014) and Elder's (2007) respective artifact ontologies. Franssen and Kroes's and Elder's fine-grained ontologies can accommodate only highly specific artifact kinds such as *Pasha Seatimer grand modèle automatique Cartier watch* (Franssen and Kroes 2014) and *Eames 1957 desk chair* (Elder 2007). Under the essentialist framework the shape is mixed into functions and makers' intentions. This, I believe, stems from the monistic assumption in the background. This need not be the case if we shift the framework to pluralism. I suggest that a morphological concept needs to be fleshed out in order to accommodate morphological classifications in certain domains and inquiries. For instance, in archeology, classifications based on morphological properties play a crucial role in artifact classification. These classifications do not necessarily involve reference to makers' intentions or to functions. Archeologists Robert Laurens Kelly and David Hurst Thomas (2013, 99-100) remark that morphological classification is highly used by practitioners alongside the functional and temporal classifications. Depending on the task and the object at hand, an archeologist can classify an object under a coarse-grained grouping such as "flat-bodied-with-protruding-legs" (Kelly and Thomas, 2013, 99-100). According to Kelly and Thomas (2013, 100), morphological classification requires an item to

show similarity in displayed characteristics, also the item should be laden with information regarding the past culture.

Thus, under the morphological artifact concept, we can say that artifacts are grouped into artifact kinds based on their displayed similarities to other members of artifact kinds. These objects need not have functional properties or be intentionally created but they are mind-dependent. The notion of similarity is vague and it is left unspecified purposefully as some variations of the morphological concept may require more strict similarity and thus result in a finer-grained classification whereas others, depending on the inquiry, may involve a coarse-grained classification (Houkes and Vermaas, 2013; Franssen and Kroes, 2014; Elder, 2007).

Purely intentional artifact concept: Intentions provide a better understanding of the normative aspects of artworks compared to the other two concepts. For instance, David Friedell (2020) argues that since Bruckner's unfinished 9th Symphony is intended to be produced as a member of *symphony kind* in the Western classical music tradition, a subsequent composer could finish the work posthumously. This is because the relevant convention (e.g. Western classical music tradition) allows for such a change in a given symphony while sustaining the work's identity. Thus it seems that what is essential to artworks is determined by the intentions of their makers and the conventions these intentions situated in. If that's the case, then a purely intentional concept would better capture the nature of these artifacts. Under the purely intentional concept, we can say, artifacts are mind-dependent objects that are made to be a member of a certain artifact kind. These objects may or may not have functional properties (Thomasson 2003, 2007a, 2014; Juvshik 2021a).

Intentionalist functional artifact concept: The intentionalist functional concept successfully sorts artifacts that show significant form variations under the same kind (Baker

2004, 2007; Dipert 1993; Hilpinen 1992; Evnine 2016). However, it cannot be profitably used in the case of artworks (e.g. conceptual art). Intended functions are used both in folk classification and engineering practices. Thus, under the intentionalist functional artifact concept, artifacts are mind-dependent objects that are made to perform certain functions.

It must be noted that the concepts of artifact briefly elaborated above is not an exhaustive list, it only aims to cover the widely used senses of artifact concept. As expected, these artifact concepts share many of their extensions. In the case of species and art concepts, people can use "species" and "art" distinctly without specifically stating the concept they use (Mag Uidhir and Magnus 2011, 92). Similarly, in the case of artifact concept, folk classifications, as well as social sciences and engineering practices use the artifact concept quite liberally.

Residual artifact concept: One important result of accepting pluralism is that pluralism accounts for the problematic cases of artifacts such as byproducts and residues. Woodchips, sawdust, midden heap are all indiscriminately considered to be artifacts by archeologists and anthropologists. Since these artifacts lack shared morphological structure, function or intentional features they do not fit neatly in the previous artifact concepts and so they are ruled out by monists.

By shifting the focus we do not have to settle down the problem cases as "spoils to the victor" (Juvshik 2021a). The winner-take-all approach flat-out rejects the problematic senses of the artifact concept. However, in a pluralistic framework, we can fruitfully approach specific kinds of problem cases within the boundaries of a specific artifact concept and see to what extent that concept manages to account for such cases (Mag Uidhir and Magnus 2011, 92-95). Many consider artworks as artifacts (Dickie 1984; Levinson 2007; Mag Uidhir 2013). If some artworks

are not functional, then we can better approach the philosophy of art with a purely intentional artifact concept at the backdrop.

> The substantive necessity of intention-dependence should be seen as posing a philosophical constraint not just for any theory of art but also for the philosophy of art itself. That is, we ought to expect any and all philosophical enquiry into art and its associated *relata* (i.e., the nature of art, artworks, art forms, art practices, art ontology, art interpretation and evaluation, etc.) to yield conclusions at least minimally consistent with, if not directly informed by, the basic background assumption that intention-dependence is a *substantive* necessary condition for being art. (Mag Uidhir 2013, 5-6; italics original)

According to Mag Uidhir, the intention to create an artwork provides significant information regarding the nature of that artwork. Thus, even though a certain snowy hill may have more exciting aesthetic properties than Pieter Bruegel's *Hunters in the Snow*, with the purely intentional artifact concept in mind, we can rule out such cases since they are not artifacts hence not artworks.

This means that depending on the inquiry we may need distinct concepts to classify certain artifacts. For instance, in the historical inquiries conducted by archeologists shape may play a crucial role in evaluating the cultural significance of the found object. Archeologist Steven Mithen (2007, 290) notes that "Polly Wiessner (1983), for instance, studied the arrowheads of the !Kung bushmen of Southern Africa and documented how their specific shapes are not only effective at killing game but define individual and social identity." !Kung bushmen's arrowheads thus belong to different artifact kinds under the morphological artifact concept. In this case, it is not the function but the shape plays a more important role in determining the membership conditions. One may object that it is not the shape itself but the intention to create an arrowhead that has a certain shape is what plays this role. However, we can imagine a scenario in which a !Kung bushman can find an arrowhead-shaped stone in the forest, still, that arrowhead would provide a valuable source of information for archeologists. Furthermore, archeologists not only

may classify found objects as artifacts, but also accidental or unintentional creations such as woodchips that result from making wooden spears are considered to be artifacts (Fullagar and Matheson 2014).

Three things should be noted. First, the variations of the morphological concept result in arbitrary fineness of grain. For instance, depending on the inquiry and context artifacts can be partitioned into fine-grained artifact kinds such as *Pasha Seatimer grand modèle automatique Cartier watch* (Franssen and Kroes 2014, 78) or a coarse-grained classification such as *flat-bodied-with-protruding-legs* (Kelly and Thomas 2013, 100). Counter-intuitively, as the !Kung bushmen case exemplifies, the morphological concept might admit accidentally created or unmodified objects as artifacts, granted that they share a similar morphological structure to members of a certain artifact kind and show a cultural significance. The intentionalist functional concept provides a stable taxonomy used both in folk classification and engineering practices, however, it leaves out artifacts that lack function (e.g. artworks). The purely intentional concept performs better in the case of artworks compared to the other two concepts. Given that none of the concepts can single-handedly capture the plurality of artifacts, then this can give us a reason to challenge the monistic framework itself.

Second, even though pluralism I formulated suggests four concepts, these are not the only viable concepts. Depending on the context or inquiry, a more refined concept might be needed. So even though I strongly suggest adopting pluralism in the case of artifacts, my wish is not to leave it static. There is no reason to reject that we might require more concepts in the future as taxonomic practices change. Consequently, a pluralistic framework that methodologically privileges actual practices should be flexible enough to capture the dynamicity of the taxonomic practices.

Lastly, all viable artifact concepts share a necessary condition: *being mind-dependent*. Given the methodology, this condition is needed to account for the current taxonomical practices. As our artifact practices dictates, the items that the concepts pick out should be such that have causal links to the human culture. That is why pluralism cannot afford to admit swamp and modal cases to the artifact ontology. To rule out such cases, therefore, pluralism needs to adopt mind-dependence as a necessary condition.

4. Objections

Pluralism seems to avoid the problems monism faces with relative ease. As we see in the previous section, pluralism shifts the focus from providing the best possible overarching artifact concept to retaining the merits of four individual artifact concepts. By shifting the focus pluralism offers a greater scope. Furthermore, pluralism does not need to appeal to definitional restrictions to which essentialist accounts commit. However, the general worries regarding the nature of pluralistic approaches makes pluralism undesirable. Here I defend pluralism three objections one can raise against pluralism to make it more desirable.

First, one may object by arguing that adopting pluralism or any disjunctive supplementation brings its own complexities and thus instead of clarifying the concepts pluralism might end up adopting the "disadvantages of those concepts" (Houkes and Vermaas 2003, 275). Furthermore, Ockham's Razor dictates us to eliminate the murkier senses of a notion, not to propagate them—the simpler the better. However, the artifactual world is not less divergent than the biological world and the art world. Considering the heterogeneity of the artifactual world, I think, a unified account is possible only in the case of ad hoc domain restrictions. Even in the case of domain restrictions (e.g. technical artifacts), there is a

considerable amount of evidence from psychological research and engineering practices that led Houkes and Vermaas (2013) to argue for pluralism in the categorization of technical artifacts.

Houkes and Vermaas (2013) argue that certain classificatory practices in engineering coincide with psychological findings presented in Malt and Sloman (2007). Malt and Sloman's experiment shows that there are, roughly, three major features that play significant roles in artifact classification: form (i.e. shape), functions, intended category membership. Correspondingly, from their experience in the philosophy of technology Houkes and Vermaas (2013) formulate three types of categorization principles for technical artifacts: id made-product categorization; functional and goal categorization; use plan and make plan categorization. Even though there are certain similarities worth mentioning, I will not get into details of Houkes and Vermaas's account since here I attempted to motivate pluralism not only for technical artifacts but artifacts in general and across different disciplines. Each artifact concept I briefly pointed out provides partial partitioning, in other words, the success of a concept is not constrained by its scope, as each concept can only range over a certain portion of artifacts depending on the inquiry.

Second, one may point out that pluralism only amounts to a verbal dispute and claim that it is only a *linguistic fact* that we use distinct artifact concepts. So, according to this objection, pluralism only tracks people's different usage of the term artifact rather than metaphysically important features and there might be a metaphysically salient use of 'artifact'. For instance, to account for the metaphysically salient features of artifacts, Randall Dipert (1993, 23ff.) suggests a tripartite distinction between *tools*, *instruments*, and *artifacts proper*. Leaving out the details, according to this distinction artifacts are items that are made to be recognized as a functional object, as Dipert (1993, 31) puts it, they are 'distinctively social.' However, his conceptual

distinction results in an even more restrictive artifact concept than the restrictions we have seen so far (‘technical artifact’ and ‘essentially artifact kind’). Given that the aim is to account for taxonomical practices, the same extensional worries that apply to the previous accounts mutatis mutandis apply in Dipert’s case. So, Dipert’s distinction is not helpful. Going back to verbal dispute objection. Since pluralism tracks important metaphysical distinctions, I think this objection does not pose a threat to artifact concept pluralism. For instance, residual artifacts are not produced with intentions to create those items, also they do not have a specific morphological structure, so they are metaphysically different from intentionally created functional objects such as computers and airplanes. So we need at least two different concepts to account for the metaphysical differences of these cases.

Lastly, one may doubt the accuracy of the analogy between species/art concept pluralism and artifact concept pluralism along the following lines: Our aim with artifact classifications is not primarily inferential or explanatory, whereas taxonomy for species and art concept is provided by the relevant specialists (Koslicki 2018, 239). Thus, our artifact classifications need not be based on specialists’ vocabulary. I agree that in the case of artifacts, folk classifications are not ultimately determined by the relevant disciplines and practices. For instance, I would not wait for archeologists’ validation for calling my favorite sitting device a “chair”, nor do I think I would be in error if that device turns out not to be a chair in some engineers’ classifications. However, pluralism explored in this paper aims not only to describe folk classifications but give a more encompassing picture across different domains in which the term artifact plays an important role. Pluralism aims to provide distinct concepts for different inquiries and hence be an alternative to the arbitrary domain restrictions that stem from artifact concept monism. By changing the question from “what concept of artifact can best capture all cases?” to “what

specific artifact concept can best capture the specific problem cases?" we need not approach a urinal, Duchamp's *Fountain*, a toast, archeological woodchips, and nuclear reactors under an overarching artifact concept (Mag Uidhir and Magnus 2011, 92). Otherwise, as Preston (2014) points out, the gap between metaphysicians' and other disciplines' classificatory practices will continue to widen. This, in turn, may result in the philosophical term of artifact having no informative use outside of philosophy.

5. Conclusion

Artifact essentialists focused on finding an artifact essence. Artifact anti-essentialists claimed that there is none. In this paper, I challenged the monistic assumption that pervades the debate. I argued against artifact concept monism first by showing that the prominent essentialist proposals currently at play suffer from major extensional and definitional problems. Second, I aimed to show that current anti-essentialist accounts suffer from eliminating all necessary properties which results in the proliferation of cases as shown by the modal and swamp cases. Metaphysical literature on artifacts is a productive field. There are both compelling essentialist and anti-essentialist proposals yet to come. Adopting a pluralistic framework motivates a new focus on the neglected aspects of the artifactual world. I pointed out some of those aspects. Obviously, artifact concept pluralism invites many questions that I could not touch upon or give a detailed answer to. It requires a greater elaboration to properly flesh out the details, however, considering the significantly diverse roles artifacts play in our lives, I believe such effort is both needed and fascinating.[9]

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