ABSTRACT
This paper spells out the ways in which we need to be pluralists about “human nature”. It discusses a conceptual pluralism about the concept of “human nature”, stemming from post-essentialist ontology and the semantic complexity of the term “nature”; a descriptive pluralism about the “descriptive nature” of human beings, which is a pluralism regarding our self-understanding as human beings that stems from the long list of typical features of, and relations between, human beings; a natural kind term pluralism, which is a pluralism that concerns the choices we have in deciding how to apply the kind term “human”; and an explanatory pluralism that results from the causal complexity of life. Because of the complexity of being human, which gives rise to these pluralisms, being human is, the paper claims, a kaleidoscopic affair, and one far from concerning the life sciences only.

1. Introduction
Ideas about “human nature” have always been important, be it for sciences, politics, or philosophy. At the same time, the idea that there is something like a “human nature” has been repeatedly questioned. From a scientific perspective, the idea has been criticized for relying on an outdated essentialism that is incompatible with contemporary biological knowledge and for relying on a misguided nature-culture divide. From a social and political perspective, it has been criticized for furthering dehumanization – the regarding, depicting, or treating of a human being as not or less human, a problem for anyone believing in equality and justice.

These critiques are discussed in detail in my book What’s Left of Human Nature (Kronfeldner 2018a). The aim of the book was to offer an approach that takes these critiques seriously and responds to them with a constructive and systematic account, to overcome the resulting challenges and to preserve what is worth preserving. The goal was to develop an account that provides new foundations for the production and use of knowledge about the human. The resulting account is post-essentialist since it eliminates the concept of an essence. It is interactive not only since “nature” and “culture” are understood
as intensely interacting at the developmental, epigenetic, and evolutionary level, but also since humans are shown to create their “nature” via explanatory and classificatory looping effects, i.e., by the intriguing ways in which deciding how one wants to be influences how one is. This then has led to the claim that the concept of being human is an essentially contested concept.

In the following, I will resist the temptation to simply repeat what I said already elsewhere.¹ I will rather try to set light on the complexity involved in being human. I want to spell out – in a more systematic manner than done in the book – the ways in which my post-essentialist and interactive account is pluralist. Given the limited space available here, I will nonetheless often have to refer to the assumptions and arguments used in the book. In result, this contribution is more comparative than argumentative. It explicates the pluralism inherent in my account, without being able to argue in depth for it.

Furthermore, at issue in this paper is the pluralism that results if we agree on the other two tenets of my account – namely, first, that there is no “essence” that “makes us” human (post-essentialism), and, second, that there is no hard divide between biologically inherited developmental resources and culturally inherited developmental resources since these resources interact at all relevant levels, i.e., the developmental, the intergenerational, and the evolutionary level (interactionism). The paper aims to show how a post-essentialist and interactive pluralism of the human allows to see some order despite the complexity involved in being human, and how that very complexity creates a space that allows the humanities and social sciences to collaborate with the life sciences – to contribute together to our understanding of what it means to be human.

2. Overview: A Multidimensional Pluralism of the Human

To understand the full complexity of the phenomena that are at issue when we talk about “human nature”, in the diversity of contexts in which we use that language, we need a pluralism that is itself multidimensional. In this Section, I will introduce four such dimensions in overview, so that I can discuss each separately and in more detail in the remaining Sections.² With this systematic approach – presenting a classification of dimensions of my pluralism – I aim to prevent that only the first dimension is noticed.

The first dimension of my pluralism is a conceptual dimension. The claim is that there are – in the world – different (set of) things that correspond to three

¹ In addition to the book itself (Kronfeldner 2018a), there is also a synopsis of the book (Kronfeldner 2018b).
² In Kronfeldner (2018a) these four dimensions are inscribed in the overall architecture of the book and discussed in too many places to point to specific pages or individual chapters. The first is mainly discussed in chapters 1, 3, 5–7, 11, the second in chapters 2, 6, 10, the third in chapters 1, 3, 5, 6, and the fourth in chapters 4, 6–9. In Kronfeldner (2018c), these four dimensions map onto five reasons (two of which are classificatory) why we disagree about “human nature” within scientific and scholarly debates. Two further reasons relate to non-scholarly contexts, which I must ignore here, for lack of space.
different post-essentialist concepts of “human nature”. There is the *typical lifeform of being human*, there is a *set of developmental resources that is biologically inherited*, and there are *necessary and/or sufficient criteria for counting somebody as human*. We can call the first the “descriptive nature”, the second the “explanatory nature”, and the third the “classificatory nature” of human beings, if we want to use that terminology. But irrespective of whether we use that language or not, these are different concepts, the words used refer to different (set of) things in the world, and, I claim, there is simply nothing in the world that allows us to give priority to one of them. If so, then we must acknowledge a *conceptual pluralism*, a pluralism about the concept(s) of “human nature”. I will spell out below that this pluralism stems not only from post-essentialist ontology but also from the semantic complexity of the term “nature”, which involves meanings of the term “nature” that point beyond the life sciences. This is the dimension of my pluralism that is most directly visible in the book. Yet, inscribed in it are further pluralisms, at further dimensions, each relating to one of the three resulting concepts of “human nature”.

At a *descriptive dimension*, we have to acknowledge that there are – in the world – many typical features (properties or relations) that *together* shape the human lifeform. This richness gives rise to another pluralism, namely a *descriptive pluralism*, a pluralism about the “descriptive nature” of human beings, a pluralism regarding our self-understanding as human beings. After all, many different (combinations of these) features have been picked out by different people as important for our self-understanding as humans, and thus for describing who “we” are and how “we” are, without a clear winner in sight. I will show below that this is so since what is important (rather than trivial) depends on the question asked, which in turn depends on social and disciplinary contexts. Because of this context-dependency, as I argued in the book, there is no ontological way to give priority to some rather than other features that are typical for being human and traditionally selected as important. I will give examples below to illustrate this pluralism, and to explicate how it points beyond phenomena studied by the life sciences.

The different features that shape the human lifeform can also gain importance in classificatory senses. Hence, they can give rise to a “classificatory nature”, i.e., they can epistemically function as necessary and/or sufficient criteria for counting an organism as a human being. And once again, the claim in my book is that we have a choice in picking these classificatory criteria. If so, we have to acknowledge a *classificatory pluralism*. I will illustrate below that, as part of classifying living beings, different groups have been called “human”, and that doing so does not itself force one to give up the claim that the term “human” refers to a natural kind, i.e., to a kind whose members share – as the

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3 The book closes with the Wittgensteinian recommendation not to use that terminology anymore. Yet, since that is difficult given the setup of this Special Issue, I will use the terminology but in quotation marks to signal that I would prefer not using the terminology.
traditional natural kind view has it – at least a large set of features. Hence, the term “human” is not necessarily referring to a biological group category and, independent of context, no ontological priority exists for a reference to a biologically delineated group. Because of this situation, we need to acknowledge a natural kind term pluralism regarding the term “human”. “Natural kind” is not to be equated with “biological kind” since some social kinds are also natural kinds.

Finally, it holds that whatever we decide to focus on, within the set of features that we can call our “descriptive nature”, the respective lifeform is causally explained by a diversity of factors. While there will also be non-causal factors, the most prominent factors in discussions about “human nature” in the descriptive sense are causal factors – developmental resources, some biologically inherited, some culturally inherited, and some environmentally inherited. Often, we call what we inherit biologically our “nature”, using the term “nature” in an explanatory role. As I describe in detail in the book, there is a broad consensus that none of the just mentioned sets of resources has any context-independent explanatory priority. Taking this seriously means defending an explanatory pluralism about the causal complexity of life. I will show below that this does not conflict with defending, as I do in Kronfeldner (2018a, 2021a), that there are different “channels” of inheritance (i.e., different causal pathways for developmental resources to travel between individuals), with cultural inheritance being the channel that points beyond the life sciences.

Epistemically, the four dimensions of the pluralism that I advocate entail that we make quite some choices when we use the term “human nature”, or when we produce knowledge about humans. After all, one rarely has the opportunity to take all aspects of the just portrayed complexity into account. That means that, usually, a scientist or scholar (or somebody else thinking about “human nature”) takes a specific perspective, i.e., a selective focus on one or a subset of the three concepts of “human nature”, one or a subset of the typical and important features that characterize the human way of life, one or a combination of the different groups that can be meant with the term “human”, one or a subset of the many causes of the human life form. If two onlookers set a different focus, then they take different perspectives on “human nature”. They take a different view through the kaleidoscope of being human.4

The core aim of this paper, and thus of the Sections 3-6, is to describe how my pluralism of the human entails that one must go beyond the life sciences to understand what it means to be human. Section 7 has a few notes on why the resulting pluralism should be understood as an integrative pluralism. With that in focus, I will address why we need to disambiguate not only the term “human” but also the term “nature” whenever we use this term (Section 3), why we won’t ever agree on what is most important about us (Section 4), why there are many natural kinds of being human (Section 5), and why the channelism

4 I take the metaphor of the kaleidoscope from Longino (2013: 206). She used it in relation to what I call explanatory pluralism.
of developmental resources is not in tension with acknowledging interaction
at the developmental, intergenerational, and evolutionary level (Section 6).  

3. Conceptual Pluralism, or Why We Need to Disambiguate What
We Mean by the Term “Nature” if We Want to Continue Using that
Language

The above-mentioned conceptual pluralism about different things in the world
that we can call and have called “human nature” stems not just from the failure
of essentialism. It also stems from the semantic complexity of the word “nature”,
which is standardly taken to refer to one or a combination of the following:

- Nature as something that is an important part of the empirically acces-
sible world (as in claiming that it is “part of our nature” to be social and
altruistic),
- Nature as something that is essential, i.e., a necessary or sufficient con-
dition for being a member of a kind (as in saying that “the nature of”
human beings is to be rational), or

5 Here is an open list of further pluralistic themes discussed in Kronfeldner (2018a)
that I will have to ignore in this paper: If the term “human nature” can be used for dif-
ferent concepts, then the usage of the term “human nature” is necessarily ambiguous.
If we ask whether we should thus get rid of the term “human nature”, we end up with a
pluralism of epistemic and social values that are all relevant for the question, but which
are easily pointing in different directions (chapter 11). With respect to my explanatory
pluralism, the following issues are discussed in addition to what is mentioned in this
paper: The more one abstracts away from polymorphisms the more certain causes can
be ignored. Something can thus be made (by abstraction) to be “due to nature” (chapter 6).
If the explanandum (the situation in need of explanation) is a statistical pattern (rather
than an abstract property such as “being able to speak a language”), then different sta-
tistical patterns (different differences) can be in focus. There can thus be a situation
where the different explanations ignore (and legitimately so) the causes that are relevant
for the other difference (statistical pattern). So, one perspective looks at non-biologi-
cally inherited resources (summarized as “nurture”) and the other at biologically inher-
ited resources (summarized as “nature”). Even if two perspectives are interested in the
same difference regarding a trait, causes can still be selected, and without ending up
with the pessimism of nature-nurture integration that characterized the two major ac-
counts in the field that discussed the issue to quite some depth, namely Keller’s (2010)
and Longino’s (2013) account (chapters 8–9). With respect to classificatory business, it
is important to notice that groups that show polymorphisms are lumped together by
some scholars and split up by others (chapter 6). In addition, there is no consensus on
the many concepts of a species in use, even though it is a key element in grouping in-
dividuals into kinds if evolutionary thinking is at issue (chapter 5). Finally, when spe-
ciation occurs is quite a tricky issue. The “age” of our species (Homo sapiens) has been
moved up and down, depending on historical context and sensitivity regarding “inclus-
siveness” of being human along its temporal extension (chapter 5). The latter, how ex-
clusive the biologically or morally delineated group boundaries are chosen to be, also
depends on the context, in part a moral context (chapter 10).
– Nature as something that is given, i.e., not man-made (as in mentioning that this or that in somebody’s behavior is “due to nature”).

With respect to expressions such as “human nature”, we thus always have to disambiguate which of these we mean, so as not to contribute to, or repeat, unproductive equivocations or associations, in particular essentialist ones.

Essentialism establishes a priority between these different meanings either directly by giving priority to the second meaning or by not sufficiently distinguishing between the three meanings. Essentialism, as I show in the book, tends to be monist with respect to the notion of “human nature”: The third, the “given”, is the second, the “essence”, which is the first, the most “important” aspect about us. Since Aristotle, being rational, for instance, has repeatedly been claimed to be not only innate (i.e., biologically inherited) but also the feature that makes us human (in the classificatory sense of “making”) and an aspect of our way of life that is of utmost importance. Since essentialism packages the three “natures” together, and thus anchors the “package” in a givenness claim, it usually ends up with a monistic frame that is simultaneously biologistic since “innateness” is the givenness that seems to be left (as an option) as part of Darwinian ontology.

Taking the different meanings of “nature” into account and acknowledging that they can fall apart (so that it is not one and the same feature (or set of features) being simultaneously our “nature” in all three senses), as I will show below, helps, I hope, in further clarifying the way in which the above-mentioned conceptual pluralism shows that we need to go beyond the life sciences to understand what it means to be human.

So, let’s talk about the three “human natures” in a non-essentialist manner. If we talk about the human lifeform (the human way of being), we talk about the descriptive knowledge we have about human beings in general. We ask what we know about us in terms of features that are typical and important. If we call that lifeform a “nature” – “human nature” – then we utilize the first meaning of “nature” mentioned above. The crucial point is that to have a “human nature” in that descriptive sense is pointing to much more than biological knowledge. It simply points to any empirically generalizable knowledge about human beings. Taking our sociality and morality to be part of “human nature” often happens without any presumption or claim about it being “due to” biological inherited developmental resources (and thus innate in that sense).

Hence, from a non-essentialist point of view not just life sciences contribute to the endeavor to understand what it means to be human in that descriptive sense. That also means that a lot is included in the “descriptive nature” that is clearly known not to be “due to nature”, e.g., the wide-spread cultural habit to

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6 I have to ignore here the history of the term and that it shows that the term “nature” also confers authority, analyzed instead in Kronfeldner (2018c) and important in understanding the antagonisms between different scientific or scholarly fields that haunt discussions about “human nature”.
bury the dead (slowly ceasing to be part of our “descriptive nature”), or that we use the techniques of written language like mad, and since quite a while.

If one, instead, uses the term “human nature” to talk about the features that decide whether an individual is a human or not, then we refer to the second meaning of “nature”. We refer with the word to something that is “essential” to the being at issue. The features that are meant thereby can be called a “human nature” in the classificatory sense, a “classificatory nature” of being human. The very features that “make us” human in a classificatory sense can however vary quite significantly and differ from what is taken to be most important descriptively. As the book shows, our “essence” in the classificatory sense can simply consist in the relational property of being a descendant of an already existing member of the species Homo sapiens. If so, then the “classificatory nature” is not the same thing as the “descriptive nature”. At best, the former is a subset of the latter. Finally, if one simply wants to talk about developmental resources that appear to be “given” from the myopic standpoint of the onlooker (e.g., biologically inherited “genes”), then one is referring to a “given” that is not “man-made”, not “culture”. In doing so, one triggers, or uses, the third meaning of the term “nature”. But the fact that something is developmentally given for a specific individual organism, and is “nature” in that sense, does not imply that it is “nature” in any of the other senses since that “given” can be far from typical and simply irrelevant for classificatory purposes.

In result, the pluralism that I defend with respect to the terminology and concept(s) of “human nature”, a pluralism that follows from the post-essentialism of contemporary life sciences (in particular, Darwinian theory) as well as from the semantic complexity in the term “nature”, states two things. First, as the above shows, there is not necessarily one thing in the world that is a “nature” of humans in more than one of the three senses of “human nature” presented. If we continue to observe that rationality is typical in the descriptive sense and relevant enough to be selected as of utmost importance for our self-understanding, then that does not mean that it is necessarily innate, nor that it is a mark of the human (i.e., a classificatory criterion for being a human). Somebody not exhibiting it is as human as those exhibiting it, and with that we can “break the spell” of essentialism, the normalizing or discounting of variation that so often results in dehumanization.7 In addition, it shows why the monism of essentialism fails, and with it goes the strong tendency to end up with a biologistic frame of being human since that stems from the third meaning of “nature”. Second, with the monism, any a priori justification for giving priority to either the “descriptive nature”, or the “classificatory nature”, or the “explanatory nature” as the primary meaning of the term “human nature” disappears. What is left are distinct concepts of “human nature”, not aligned anymore, referring to different (set of) things in the world.

The picture can be summarized as follows: what we traditionally call our “descriptive nature” consists in a list of typical features of individual human

7 As described in Kronfeldner (2021b).
beings, quite a long list, including being social and altruistic, our rationality, consciousness, language, walking on two legs, opposable thumb, tool use, culture, bury the dead, using written language like mad, etc. What we traditionally call our “classificatory nature” consists, by contrast, either in a subset of these properties or in one or a set of relational properties. It consists in whatever we have self-referentially chosen in the past and will choose in the future (and maybe differently) to matter for being a member of the group that we call “human”. The chosen “classificatory nature” can point at the same properties or relations chosen to be part of the “descriptive nature”, but it does not do so necessarily and it currently does not do so in the case of the group Homo sapiens (which is what “human” primarily refers to if we use that term in a biological sense) since, according to the contemporary consensus in evolutionary biology, the relational property of being a descendent of other humans is the only “essential” thing for being a member of that group. Finally, what we could call our “explanatory nature” cannot, as a matter of principle, be the same thing as the “descriptive nature”, and it is often, as a matter of fact, not the same as the “classificatory nature”. Let me explicate these last two points in a bit more detail, to prevent misunderstanding.

With respect to the relationship between the “explanatory nature” and the “descriptive nature”, two things are crucial. First, used as an explanatory category, the term “human nature” refers to either all developmental resources (typically available for the respective group) or to a subset of these, namely the subset that travels a biological channel of inheritance. I defend (in the book and in Kronfeldner 2021a) that we can choose the first, the inclusive notion of an “explanatory nature” of humans, or we treat the biological channel as so distinct (channelism) that we can draw a line and regard the biologically inherited developmental resources as our developmentally given “explanatory nature”. The latter is the traditional way of using the distinction between us having a “nature” and us having a “culture”. So, the “descriptive nature” and the “explanatory nature” are distinct since the latter often refers to only a subset of developmental resources. In addition, even though many of the developmental resources available for humans are as typical as the features we standardly include in our “descriptive nature”, they are the cause of the latter. Since cause and effect are standardly taken to be different things in the world, the “explanatory nature” cannot, as a matter of principle, be the “descriptive nature”. So, the “descriptive nature” and the “explanatory nature” have to be taken as distinct.

With respect to the relationship between the “explanatory nature” and the “classificatory nature”, I mentioned above that by using the notion of a “classificatory nature”, we usually pick one (or a few) features from the “descriptive nature” as being of classificatory import, but we could also pick developmental resources as being of classificatory import. Just imagine that “we” agree to pick out one specific gene as the one necessary and sufficient condition for being human. In such a case, the “classificatory nature” would be a subset of the “explanatory nature”. 
To sum up: Superimposed, the three meanings of the term “nature” – together with our contemporary post-essentialist knowledge about life and our contemporary ontology of cause and effect – still allows for a unified picture, even though it is a complex one. There are connections between the “three natures” (the descriptive, the classificatory, and the explanatory use of the term), three concepts that we can form by using the age-old notion of a “nature”, but the “three natures” do not necessarily map onto each other and there is no way to give priority to one sense over the others, except by fiat. Being human is a kaleidoscopic affair.

4. Descriptive Pluralism, or Why We Won’t Ever Agree on What is Most Important about Us

The list of features that are typical for human beings is quite long. In that sense, “human nature” is rich, too rich since some such features will be utterly unimportant, i.e., irrelevant for a specific theory of “human nature”. The crucial question is however: what or who decides what is important?

Recall how a human foot is built. It happens to be the case that typically human feet are too small and too far away from the respective heads to function as a sunscreen. Yet, in medieval imagination of European science and scholarship, some earthly people were depicted as having giant feet that can be put over the head for sun protection (see Figure below).

Figure: “Plinian races” (distant people, believed to live at the edge of the perceiver’s world, with reference to Plini the Elder) in Sebastian Münster’s Cosmographia (1544: DCCLII). (Public domain)
Even if such human characteristics were only imagined, it seems that the inexistence of variation with respect to that property in the European population was important enough for the imagined abnormality to be included in a kind of prescientific world atlas of human affairs, namely Sebastian Münster’s *Cosmographia* (1544). The importance of that property might well have resulted from the importance of the climate for human self-understanding at the time. After all, the edges of the perceived world in the 16th century were often environmental, with areas too hot for human beings to thrive. No surprise that sunscreen-feet were a thing.\(^8\) With this example, I want to illustrate in the following that whether the human foot is of importance for a specific theory of “human nature” depends on context. It is not the case that it is clearly, in all circumstances, a trivial fact about us, too unimportant to be mentioned. Importance of a property depends on environmental, social, and disciplinary context. And who knows (if I am allowed to do a bit of “magic” projection into the future) whether such feet will be among the enhancements for our species – during or after the ecological disasters that we created and continue to create. Yet, even if, let’s imagine, such giant sunscreen feet become part of what’s typical for humans, that does not mean that it will therefore be regarded as part of our “descriptive nature”. Why? Since most of us might still not agree on it being important enough to be regarded as part of our “descriptive nature”, and for reasons.

Here is one such reason: The features of our lifeform that are usually selected as being important and thus part of our “descriptive nature” have some explanatory significance for other features of the lifeform. Since explanatory importance depends on the explanandum chosen, the importance of the explanandum is transmitted to the explanans. For most who talk (or talked) about “human nature”, the feet of humans are (or were) not an important feature for explaining how we are, but for some, it is (or was). The precise structure of our feet and legs, the muscles and fibers enabling our unique heel-to-toe stride, is for some as important in explaining our evolution as the opposable thumb is for others.\(^10\) Still others focus on properties such as language and consciousness. The difference in focus often stems from differences in explanatory goals.

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\(^8\) See Friedman (1981) for the relevant history of such imaginations.

\(^9\) For further reasons, see Kronfeldner (2018a: 139–145, 2018c).

\(^10\) Experimental as well as evolutionary biologists have worked on how our heel-to-toe stride, and everything related to it, could have evolved. See, for instance: Webber et. al. (2016) or McNutt et. al. (2018). We can even imagine a group of philosophers, let us call them the “footists”, who ascribe high philosophical importance to our feet. They state that walking (not tool use, as others have claimed) made us human, evolutionarily speaking. Walking, footists claim, explains the evolution of mind and consciousness (in the full sense we ascribe it to ourselves exclusively). They thus appraise pedestrian mobility in practice and theory and defend the peripatetic principle (PP), which states that you will not understand anything if you just sit and watch. Only walking will enable rational cognition since it is the only natural movement of the body. Swimming or cycling are, according to them, as unnatural as flying. In short, the foot is of highest importance for understanding “human nature” (if not “sacred” or “cosmic”) – say the “footists”. It
To illustrate this a bit further, I will compare in the following two similar properties, the opposable thumb and the human foot. Both typical properties of human bodies can be important in explanatory senses, after all they both do some explanatory work. They explain why certain other things became possible for us. The typical characteristics of our feet explain why our nomadism (eventually migrating globally) became possible since it allowed us to walk long-distances with high efficiency, while the typical characteristics of our hands explain why it was possible for cumulative cultural evolution of tool use and eventually full-blown technology to emerge. Different explananda require different explanations. Which explananda are important is in turn dependent on our epistemic background and our social values. Backgrounding that migration made us human speaks of certain values and interests. Backgrounding that tool use made us human speaks of other values and interests, some social, some disciplinary.

Finally, backgrounding some characteristics that are typical and stably reoccurring in human beings (such as the use of written language) as merely “cultural” also speaks of certain values and interests. Using written language is, in and of itself, as much part of our lifeform as our heel-to-toe stride. So, why is the one sometimes taken to be mere culture and the other part of our “deeper” “descriptive nature”, given that both are rather typical features? As I argue in the book, it is a specific focus, an interest in a specific kind of stability (i.e., typicality over time), namely the stability that the biological channel of inheritance guarantees. That interest tricks us into the thought that the one property is not part of our “nature” in the descriptive sense, while the other is. But that is just one interest, even if the existence of the respective stability is a matter of fact. Some of us, after all, might not be interested in what is stably reoccurring, but in what makes change possible (e.g., a change that might save the planet as one on which human life will still be possible). For such an interest, the use of written language (enabling the spread of knowledge at a speed that is as fascinating as it is needed for saving the planet, given the harm done already) is a very important feature of our “descriptive nature”, whereas the opposable thumb is by now rather a residue of our past, a trivia of our history, given that we moved on.

The descriptive pluralism that I defend takes all of the above into account and claims that, although we have the right to set a focus, we should accept that others have the same right, namely a right to set a different focus, because it is their job, their idiosyncrasy, or social positionality. Thus, even if two scientists (let’s imagine) are both interested in the “descriptive nature”, they can still disagree on which of the typical properties is “important”, with no context-independent way to decide who is right. A property such as the use of

should therefore also be the foundation of understanding fundamental ontological units, such as length, etc. This is why they advocate for feet (ft) versus meter (m) as universal standard for measuring the length of something... A silly story, but not much sillier than some others, inside and outside of philosophy, in which one feature “takes it all”, in the name of the worship known as human supremacy beliefs.
written language, a feature of the human lifeform which cannot be understood if social sciences and humanities are not considered along with life sciences, is in and of itself as important as the opposable thumb and our foot. If one asks whether it is the one or the other that makes us human, one is asking a meaningless question. Similar points hold for other questions, such as “Are we a particularly war-faring and egoistic species or are we a particularly social and altruistic species”, “Are we nomads or settlers?” For thousands of years, evidence for and against the respective claims has been accumulating, and from a variety of perspectives, with no clear winner in sight. Without context or the question asked added, these questions are meaningless.

Once the context and the question are added, we see that there is a choice of focus involved, which is underdetermined by data and very likely influenced by our values and self-understanding. We choose among the available “theories” of being human. As a result, one sees – in studying such theories – that what it meant to be human (i.e., what the we-sayers deem/ed to be important about being human) varied across time and space, is often idealized, and is rarely about an easy-to-capture matter.

This then leads to the claim that “being human” is an essentially contested concept.\(^{11}\) It is part of being human to endlessly contest what it means to be human, i.e., to contest what is important about us. While contesting how “we” want to be, the group of “we”-sayers becomes human, not in a progressivist sense of becoming, but in a cyclic sense of becoming. Being human means to maintain a process of being in which our values, self-understanding, and decisions make a difference. “Human nature”, if it exists, consists in a process, an open dialectic of repeated becomings and failings. The freedom we have is a freedom that allows us to flourish and to perish. Pope (1871), famously, portrayed the human being as one that “hangs between, in doubt to act or rest, in doubt to deem himself a god or beast”. Indeed, we play god and beast, and often simultaneously so. We are responsible for doing so since it involves our choices.

5. Classificatory Pluralism, or the Many “Natural Kinds” of being Human

With the term “human”, scientists often refer to a group that is biologically delineated, the species *Homo sapiens*, the only “human” species that is still alive. But that again is a choice, and one that is still far from universal. First, it is likely that not all human beings have internalized the ontology of modern taxonomic and evolutionary thinking. Second, even in contexts where the modern evolutionary ontology is included in school curricula or similar education and thus widespread and frequent, the term “human” often simultaneously refers to a differently delineated group, usually a group delineated along social criteria. Thus, being human can refer to our social relations, our morally specified ways

\(^{11}\) In Gallie’s (1956) original and rather narrow sense, depicting a specific kind of contestation. For details, see Kronfeldner (2018a: 226–228).
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of behaving to each other, our humanness. These are relations that can easily go beyond the species boundary, exactly in the sense in which the anthropological literature traditionally portrays such interspecies relations.\(^\text{12}\) Traditionally, the concept of personhood stands for that notion of the human. For being human in that social group sense, the book claims, it can be sufficient whether one is able to interact in the morally specified ways with other beings. Hence, the species-boundary becomes irrelevant. If certain imagined humanoids (pick your preferred science fiction movie) fulfill the respective classificatory criteria, then they can count as human in that social sense (a sense, as said, not to be conflated with the biological group sense). The crucial point is then that while some share that humanoid-intuition, others are so deeply wedded to the biological group reference that they will have difficulties with any view of the human that allows to cross the species-boundary, be it toward animals or humanoids.

In result, our “nature” in the classificatory sense can simply be our social relatedness to other beings, or whatever we care about most in our way of being. Thus, our social ways of behaving, studied by social scientists and scholars, can also be classificatory criteria, even though for a different notion of the human. The “classificatory nature” (the set of membership conditions chosen) does not have to refer to the biological category of a species. If our concept of who counts as human is referring to biological facts, then that is simply reflecting the contingent self-understanding of those who have chosen the respective membership conditions. Pointing to the biological species (e.g., the way contemporary biology is doing) is just one possible way of how one can classify living beings. The contemporary importance of genealogy, and with it the importance of family and kinship, is historically contingent.

Seeing that contingency, which is one of the tenets of the classificatory pluralism that I defend, is important, not only to understand non-Western ontologies but also to imagine new options for a future of the human. Moving to a classificatory pluralism means that we have chosen and will have to choose (via our reflective self-understanding) who counts. Without a chosen reference class, no generalization about human beings can get off the ground. Finally, that there is a dialectic of explanatory and classificatory looping effects (which I discussed in the book with reference to authors such as Cassirer, Collinwood, or Hacking) means that the boundaries of “us” will further change with our self-understanding. In the language of Stuurman (2017), the invention of the human is ongoing, and it involves, as this paper aims to show, much more than just the life sciences.

Finally, it is important to note, philosophically speaking, that there are no a priori reasons for claiming that only a biological group delineation (\textit{Homo sapiens}) allows for a traditional “natural kind” picture of humans, as part of which (as the tradition has it) there needs to be at least a large set of features or relations shared by those included in the group. Being socially related in a

\(^{12}\) As authors such as Viveiros de Castro (1992), Ingold (2000), Haraway (2003), or Sahlins (2008) advocate.
specific sense also involves a rich cluster of features shared among the members of the resulting kind. It is the point of many science fiction movies that some of the humanoids showing up in these movies exhibit many of the typical human traits, sometimes even more so than the stereotypical human. The female character in *Bladerunner* (1982, directed by Ridley Scott) is clearly depicted, and from the start, as “more human than human”. Stories like Dick’s (1968) story, used for *Bladerunner*, disturb our intuitions on what makes us human. We start reflecting on whether it is just, or at all, about our biological heritage and “wetware”. There is thus no in principle priority of the biological over the social way of delineating a group of “humans”, as long as the delineated groups show high similarity with respect to a rich set of features. The biological context should not be taken to be the only context that can uncover real, i.e., “natural”, kinds (natural, in the first meaning of the term introduced in Section 3).

6. Explanatory Pluralism, or Why Channelism Is Not in Conflict with Acknowledging Interaction

I take the “explanatory nature” of being human to not be more “essential” or “fundamental” than the other sets of developmental resources (standardly called “culture” or “environment”). As many others, I assume that all developmental resources are, as such resources, of equal explanatory importance, even if they have a different developmental and evolutionary dynamic. They are ontologically on a par, as the famous “parity thesis” of developmental systems theory stated, an approach that is central to the developmentalist challenge described in detail in the book.

My account presented in the book, further developed in Kronfeldner (2021a), stresses that cultural evolution, a change in developmental resources that are – once available – socially learned, can happen without a concomitant change in biological evolution. Cultural inheritance of developmental resources is not only near-decomposable from biological inheritance (argument from near-decomposability), but culture can also take off (argument from autonomy), and it has, usually, a much higher stability over time (argument from temporal order). “Nature” and “culture” (if understood as systems that connect individuals via the inheritance of developmental resources) are simply two distinct channels of inheritance. In that and only in that sense, there is, in my view, an autonomy of culture. An autonomy that was and is emancipatory for many people, freeing them from any ideology that preaches “biological” or “developmental” destiny. I still have not seen any argument that shows that channelism to be wrong, even though it is regularly attacked in a wholesale manner or silently ignored, especially by some of those who want to overcome the outdated idea of genetic determinism and throw out, in my opinion, the proverbial “baby” (the freedom that culture confers) with the biologistic-deterministic “bathwater”.

At the same time, it is very important to acknowledge that the two channels are nonetheless fully interactive, at the developmental, intergenerational, and
evolutionary scale, and intensely so, as many before me have stressed. Even if a lot has changed in culture from one generation of people to the next, while less has changed in “nature” (biologically inherited developmental resources) during such a time of cultural acceleration, what is inherited in these two channels is still interacting intensely at every moment of the development of an individual, from point zero (conception of a new human being) to the last gasp this person takes. And the same holds for the intergenerational and evolutionary level.

At the level of the individual, there is thus no way to keep “nature”, culture, and environment distinct. There is simply one developmental system. An individual living being is, so to say, ego-centric, it looks from the inside out, sucks in whatever it can get (or resists it), and does something with it. If something is a developmental resource, it is a developmental resource. At the intergenerational and evolutionary level, “nature” and “culture” interact via epigenetic inheritance and as part of so-called co-evolution. Niche inheritance and niche construction are further mechanisms of interaction at these levels, working at the individual level and the populational level. In sum, everything is interacting to give rise to the human life form and is in that sense of equal explanatory import, and nonetheless, culture can change or vary without a concomitant change in “nature”.

It follows that the channelism that I stress in my work, which I took, even though in revised form, from Alfred L. Kroeber (1917)’s classic contribution, does not conflict with any of the popular claims about developmental systems, biosocial becomings, entanglements, naturecultures, cyborgs, etc. Yet, in contrast to many others, my account does not ignore the one kind of separation that survives interactionism, namely that there are dynamically separate channels of inheritance: biological and cultural.

The pictorial representation that properly captures this structured complexity of entanglement (ordered, but plural, since there are different channels of inheritance) is again the kaleidoscope. Since some of the processes and mechanisms at the different levels of change are studied by life sciences, while others are studied by cognitive sciences, social scientists or scholars from the humanities, we need interdisciplinary interaction to capture the causal interactions in the world as completely as possible. All these scientists and scholars should interact (integrate the knowledge accessible with their tools, join their epistemic forces) to capture the complex grandeur that we call “life”.

But there is no hierarchy between them. There is no sense left in which biologically inherited resources are ontologically “deeper” or in general explanatorily more important. True, they are “bookkeepers”, but as such they are neither more nor less important than other kinds of developmental resources, executing other roles. For instance, why should something “built for stability” (biological channel) be more important (in and of itself) than something “built

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13 At least since Lewontin’s (1974, 1985) dialectical approach and Oyama’s (1985) and Griffiths & Gray’s (1994) developmental systems theory. For review of the debate and contributors till then, see: Kronfeldner (2018a: chapter 4).
for quick reaction” (cultural channel)? In a world of unbound evolution, “nature” and “culture” are in general equally relevant for explaining how we are, despite their different dynamical features.\textsuperscript{14}

7. From Parity to Integration

All of the above was meant to elucidate in which sense the different perspectives (that we can take on the phenomena involved when we talk about human beings) are in parity: there is no hierarchy between a descriptive, classificatory, or explanatory use of the term “human nature” and no hierarchy between the different features of being human that can be picked out as part of the respective description, classification, or explanation. As mentioned above, if two onlookers set a different focus, they make different choices and in result they take different perspectives on “human nature”. The respective focus can simply be idiosyncratic, or it can be justified via a certain social or epistemic context, but none of the perspectives has priority independent of the respective contexts.

Nonetheless, the different perspectives can be integrated, at least in principle. This is why the pluralism that I defend is not only an interactionist pluralism but also an integrative pluralism. All the perspectives – once they helped to produce knowledge about human beings – can in principle contribute to solving a specific, concrete issue (e.g., about written language as part of “human nature”). Hence, there is no need to be afraid of the pluralism of being human developed in my book and summarized here. One often (if not always) can go from parity to integration.

This integration claim has two aspects. First, it claims that there is no way to align the different perspectives (to reduce one to the other or make one the servant of the other), at least not without risking the loss of opportunities to see something relevant from these different perspectives. Different things become visible via the different perspectives, things that can then be used to solve concrete questions or issues. Second, acknowledging the diversity is not doing any harm. Conflicts and tensions in the knowledge produced that can arise while integrating the knowledge produced from separate perspectives could still arise even if the perspectives would have been integrated from the start, just that certain bits of the knowledge visible from the different perspectives would not have been produced in the first place. So, there is no danger of losing bits of knowledge in being pluralist. On the contrary, it can be very productive, even though it can certainly also fail to be so, depending on context and willingness of those involved, to aim at an integration at the end of the process of producing knowledge from the different perspectives. This is my argument from the fruitfulness of integration as well as separation, developed in more detail elsewhere.\textsuperscript{15}

\begin{itemize}
\item \textsuperscript{14} This Section is the second step in my response to Buskell (2019). For the first step in my response, see: Kronfeldner (2021a).
\item \textsuperscript{15} For details and cases from the history of evolutionary thought about humans, see, in addition to the above-mentioned chapters in Kronfeldner (2018a), Kronfeldner (2010,}
As a result, the different perspectives relate to each other like the pieces in a kaleidoscope: they are plural but ordered, integrated in application to a specific situation. If different perspectives are organized in a specific way, integrated for a specific occasion, then something complex but ordered becomes visible. Such a view from the kaleidoscope will still not give access to everything. Something will always be ignored; after all, in epistemic matters, nothing is ever complete. But why should completeness, a perfection of a specific kind, even be the goal? All we need is a functioning epistemology of the human for limited knowers, for real knowers – not for imagined perfect knowers.

So, what does it mean to be an integrative pluralist about “human nature”? A monist is allowing for only one perspective, whereas a pluralist recognizes a set of stable perspectives on an issue and is “separationist” in that sense. A non-integrative pluralist is an incompatibilist with respect to the different perspectives. An integrative pluralist aims at and believes in the local integration of the nonetheless persisting separate perspectives since integration is often (if not always) possible and, once it is time for it, useful. An integrative pluralist acknowledges the interaction of the phenomena visible from different perspectives, without giving wholesale priority to one of the perspectives. An integrative pluralist grants the “right to ignore” (for a while at least), which is the right to set a focus, and appreciates the beauty in the complexity of the kaleidoscope.

As a Final Note

This paper meant to show that understanding what it means to be human is for an integrative pluralist like looking into a kaleidoscope that clearly reaches beyond the life sciences, and one that drags the onlooker into it. The kaleidoscope is “immersive”; the onlooker becomes part of the processes that are visible via the entanglements and representational mirrors that make up the ever-changing and never-ending kaleidoscope that we call “human nature”. The kaleidoscope does not have essences, fixed nuts-and-bolts, or clear boundaries but it has a structure, channels, parts, and specific kinds of interactions that can be put in focus – to learn through each other, rather than to oppose those that happen to focus on something else.

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2015, 2017), where I spelled out this integrative pluralism in more detail, but mainly with respect to explanatory pluralism. As part of that, I defend, for instance, the right to ignore “human nature”, a right that the cultural anthropologists of the 20th century often requested and that evolutionary psychologists like to challenge with their call for integration. In general, my integrative pluralism is much inspired by Mitchell (2003, 2009), Keller (2010), and Longino (2013), even though I slightly depart from each of them, as Kronfeldner (2015) clarifies.

16 Longino (2013: 206) thus also writes that “kaleidoscopic” knowledge is “piecemeal” and that “understanding the image produced requires appreciating its partiality.”
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Biti čovek je kaleidoskopska stvar

Apstrakt

Ovaj rad opisuje načine na koje treba da budemo pluralisti u pogledu „ljudske prirode“. U radu se razmatra pojmovni pluralizam pojma „ljudske prirode“ koji proizlazi iz post-esencijalističke ontologije i semantičke složenosti pojma „priroda“; deskriptivni pluralizam „deskriptivne prirode“ ljudskih bića, odnosno pluralizam u pogledu našeg samorazumevanja kao ljudskih bića koji proizlazi iz dugačke liste tipičnih karakteristika koje pripisujemo ljudskim bićima i odnosa između njih; pluralizam termina koji se odnosi na prirodne kategorije, odnosno pluralizam koji se odnosi na izbore koje imamo prilikom odlučivanja kako primeniti izraz „ljudsko“; te eksplana
torni pluralizam koji proizlazi iz uzročne složenosti života. Zbog složenosti koje podrazumeva bivanje čovekom, koja dovodi do ovih pluralizama, biti čovek je, kako ovaj rad tvrdi, kaleidoskopska stvar koja uveliko prevazilazi samo nauku o životu.

Ključne reči: bivanje ljudskim bićem, ljudska priroda, pluralizam, prevazilaženje nauka o životu.