

**Reflections on (our research on) human-to-animal communication (in Africa):
Anthropocentrism, Posthumanism, and White Crisis**

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Abstract: The present article is dedicated to (research on) one aspect of human-to-animal communication, namely, the category of conative animal calls (CACs) or: lexicalized constructions bestowed with phonic substance that are addressed to non-human animal species, entertain a directive function and, apart from functioning as words, can be used as self-standing non-elliptical utterances. The authors review the history of CAC scholarship and contextualize it within the Zeitgeists, philosophies, and intellectual currents of the relevant epochs. The authors argue that the historical marginalization of CACs in linguistics is related to the anthropocentrism of the 20th century while the recent growth of CAC studies reflects the posthumanism that has flourished in the 21st century. Despite the benefits offered by the current posthumanist context visible in the explosion of research on CACs – as well as the increased plasticity of the concept of language and the expansion of the linguistic field by several phenomena formerly marginalized or excluded from it (to all of which CAC studies have substantially contributed) – the authors problematize this shift in posthumanism-infused CAC linguistics. That is, when evaluated from an African perspective and through a decolonial lens, the posthumanism underlying the surge in scholarly interest in CACs seems to be yet another manifestation of Whiteness and a reaction to ‘White crisis’.

Keywords: Human-to-animal communication, conative animals calls, anthropocentrism, posthumanism, decoloniality, Whiteness, White crisis

1. Introduction

The various subfields of linguistics do not develop, flourish, dwindle, or remain overlooked by accident. On the contrary, their growth, explosion, decay, and marginalization are all anchored in and motivated by the intellectual and cultural *Zeitgeist* of a particular time. This is particularly evident in the case of the branch of language science dedicated to human-to-animal communication and conative animal calls or CACs more specifically.¹

In the present article, we contextualize (the characteristics of) research on CACs and its development within the intellectual atmospheres and dominant trends of the relevant epochs. We relate the historical marginalization of CACs to the anthropocentrism of the 20th century, and the recent growth of their studies to the posthumanism of the 21st century. Despite the benefits offered by the current posthumanist context visible in the explosion of research on CACs, we problematize this shift in CAC scholarship: we evaluate posthumanism, which underlies the surge in scholarly interest in CAC constructions, from a decolonial perspective and propose to explain it in terms of Whiteness (Wester-ness) and a ‘White crisis’.

2. The category of conative non-human animal calls and its story

Conative animal calls are operationally defined with five chief parameters. CACs are:

¹ For a detailed definition of CACs see Section 2. Properly speaking, since humans are part of the kingdom of *animalia*, CACs should be referred to with the modifier ‘non-human’ and thus as ‘conative non-human-animal calls’ (and ‘human-to-animal communication’ as ‘human-to-non-human-animal communication’). We employ the term ‘CAC’ (and human-to-animal communication) for the sake of simplicity and given its common use in previous publications.

- (a) lexicalized constructions (i.e., they constitute a word-like form-meaning pairing)
- (b) bestowed with phonic substance (this phonic substance may be produced orally, with body parts other than the mouth and vocal tract, or by manipulating objects)
- (c) that are (exclusively, primarily, or regularly) addressed to non-human animal species,
- (d) entertain a directive function (i.e., the human speaker requests or orders their animal interlocutor to perform a determined action or behave in a certain way)
- (e) and apart from functioning as words or word-like construction (see (a) above), can be used holophrastically as self-standing and non-elliptical utterances (Andrason & Karani 2021; Andrason & Phiri 2023).

A canonical example of a CAC is *quququququ* employed by Xhosa speakers to summon poultry, especially chickens:

- (1) *Quququququ! Ngokukhawuleza!*
 Quququququ Ngo-ku-khawuleza!
 CAC with-SA15-do.quickly
 ‘(Here) chick-chick-chick quickly!’ (adapted from Andrason 2022:45)

CACs occupy a special position in both human-to-animal communication and human language understood narrowly and traditionally. Humans certainly have a large range of devices with which they can interact with animals. On the one hand, these devices can be phonic/aural (e.g.,

consonants, vowels, kisses, whistles, tune-like melodic patterns, claps, snaps, stamps, and any other sounds labeled as non-articulated ‘noises’), visual (e.g., gestures), haptic (e.g., jerks, kicks, pulls, caresses, hugs, and taps), olfactory (e.g., smells) and even pheromonic – all of which can be produced with (part) of the human body or by means of manufactured objects and tools. On the other hand, the various formal types of the devices mentioned above can be deployed to carry out a directive (i.e., getting the addressee to do something), referential (i.e., denoting concrete and abstract entities or depicting situations and properties), phatic (i.e., establishing, maintaining, and suspending a communicative channel), and expressive function (i.e., communicating emotions and physical sensations) (see Brandt 2004; Mondémé 2018; Schötz 2020; Lohi & Simonen 2021; Harjunpää 2022; Andrason & Phiri 2023). Within this complex formal and functional human-to-animal repertoire, only CACs are ‘linguistically stabilized’ forming part of pan(-idio)lectal human lexica and grammars – or as we said above, human language understood narrowly and traditionally. The most evident manifestations of this, is the inclusion of CACs in dictionaries and grammar books of individual languages (see further below) and the recent recognition of CACs as one of the categories of interactive grammar and a lexical class on par with verbs, nouns, ideophones, interjections, and many others (Andrason 2023; Heine 2023).

CACs have historically been the most marginalized lexical class, both in human language(s) in general and among the interactive categories specifically (Poyatos 2002; Andrason & Karani 2021; Heine 2023). Until the end of the 20th century, CACs have only been described in a detailed manner in Arabic (Schulthess 1912), Tamazigh (Ayt Hadiddu) Berber (Bynon 1976), and Turkish (Jarring 1941; Eren 1952), as well as in some Slavonic languages, specifically Polish, Czech, Russian, and Slovak and their dialects (Germanovič 1954; Siatkowska 1976). Significantly more often, CACs have been dealt with in a superficial manner, their discussion being limited to a

few sentences or the mere enumeration of a handful of lexemes. The works of this class either focus on other categories and linguistic phenomena, e.g., interjections, onomatopoeias, and “para-language” (see, e.g., Grochowski 1988 and Poyatos 1993) or constitute general grammars of individual languages (see, e.g., Doke 1954; Van Eeden 1956; Du Plessis 1978). In both cases, the analysis of CACs is ancillary and/or minimal. The examples of these types of studies involve Awtuw (Feldman 1986), Ewe (Ameka 1992), Georgian (Hewitt 1995), Muna (Van den Berg 1989), Noon (Soukka 1999), Southern Sotho (Guma 1971), Tswana (Cole 1955), Zulu (Doke 1954; Van Eeden 1956), and Xhosa (Du Plessis (1978), as well as, with regard to syntax, Polish (Grochowski 1988).² Additionally, CACs – or rather a few of their most stabilized representatives – featured in the dictionaries of many languages (see, for instance, Pahl 1989 for Xhosa or Dunaj 1996 for Polish).³ The first study that examined CACs from a comparative and typological perspective and included evidence from a number of unrelated or remotely related languages appeared at the end of the 19th century, when Bolton (1897) examined the language used in talking to domestic animal species. In the second half of the 20th century, Siatkowska (1976) offered a much more detailed and systematic comparative analysis of CACs in a sub-branch of a single language family, West Slavonic.⁴ Overall, when compared to research on categories or phenomena such as verbs and verbal systems or nouns and nominal systems, and even discourse particles, ideophones, and

² Of course, there are many other studies of this type. Those that we enumerate above are, in our opinion, the most relevant.

³ More examples of dictionaries containing CACs may be found in Andrason (2023).

⁴ Some comparative evidence from Greek, Latin, and Germanic languages may also be found in Schwentner’s (1924) study of interjections.

interjections, CAC scholarship used to occupy a remarkably peripheral position in language science.

This marginalization of CACs in linguistics started to change in the 21st century. Within the span of twenty years, the state of CAC scholarship has improved considerably, reaching an unprecedented explosion in the current decade. To be exact, CACs have been examined in a detailed manner in West, East and South Slavonic languages, i.e., Polish, Serbo-Croat, and Russian (Daković 2006), in Omotic languages, i.e., Zargulla, Wolaitta and Maale (Amha 2013), and in Finnish (Jääskeläinen 2021). CACs have also been analyzed more extensively than previously in studies dedicated to interjections, e.g., in Polish (Wierzbicka 2003), Arabic (Abdulla and Talib (2009), Chuvash (Denisova and Sergeev 2015), and Kambaata (Treis 2023). Even mentions of CACs in general grammars have become more common and prominent as illustrated, for instance, by Matses (Fleck 2003) and Konso (Orkaydo 2013) – with Lithuanian constituting an exemplary case (Ambrasas et al. 2006). More theoretical and/or typological oriented approaches to CACs were presented by Aikhenvald (2010) within her discussion of imperatives and command forms and Meinard (2015) who dealt with the interactive categories of interjections, directives, and onomatopoeias. A seminal moment in CAC scholarship was the publication of a monograph dedicated to the typology of interactives by Bernd Heine (2023). In this work, Heine offered a detailed and compelling analysis of CACs as an independent category of interactive grammar – one of the 11 types of interactives.

Some part of this unquestionable advance in research on CACs may be attributed to the research activities conducted by Alexander Andrason – one of the authors of the present article. Since 2020, alone or together with colleagues from several universities in Africa, Andrason has launched and directed a wide-scale research program dedicated to documenting and analyzing

CACs in African languages. Since then, CAC categories in the following 28 languages (see map 1 below) have been studied or, at least, documented in a principled manner: Xhosa, Chinyungwe, Kihunde, Lingala, Mokpe, Oroko, and Ihanzu – seven Bantu languages spoken in South Africa, Mozambique, Congo, and Cameroon (Andrason 2022; Akumbu, Andrason & Mokeke forthcoming); Babanki, Bum, Kenyang, and Menka – four Bantoid languages spoken in Cameroun (Andrason & Akumbu 2024); Asante, Bono, Fante, and Ewe – four Kwa languages (or varieties) spoken in Ghana (Andrason, Anwti & Duah 2023; Andrason & Gafatsi forthcoming); Macha Oromo, Gedeo, Somali, and Gorwaa – four Afro-Asiatic languages spoken in Ethiopia, Somaliland, and Tanzania (Andrason, Mukugeta Onsho & Shimelis Mazengia 2024); Ehueun, Ukue, and Yoruba – three Volta-Niger languages spoken in Nigeria; Arusa Maasai and Sengwer – two Nilotic languages spoken in Tanzania and Kenya (Andrason & Karani 2021); Tejukan of Dourou – a Dogon variety spoken in Mali (Andrason & Sagara 2024); Dza – an Adamawa variety spoken in Nigeria; Tjwao – a Khoi language spoken in Zimbabwe (Andrason & Phiri 2022); and Hadza – a language isolate spoken in Tanzania.

In light of the data collected and the literature related to CACs in the languages from other language phyla and geographical areas that already existed, Andrason and his colleagues have proposed several typological generalizations. This work has resulted in: the development of a tentative prototype of CACs (Andrason & Karani 2021), which has subsequently been tested and refined in several other studies (e.g., Andrason 2022; 2023; Andrason & Phiri 2022); the design of a set of typological properties characteristic of a subclass of CACs that are used to chase away animals, the so-called dispersals (Andrason 2023); a comprehensive typology of CACs that are produced by exploiting kiss-like sounds (Andrason under review); the determination of ecolinguistic features typical of CACs in African languages which relate these types of

constructions to their ecosystems, i.e., natural habitat and socio-culture (Andrason et al. under review); and the establishment of morphic properties of CACs. We have also studied the cognancy of CACs in dialects of the same language (for example in three Akan varieties, i.e., Asante, Bono, Fante) (Andrason, Anwti & Duah 2023) and closely related languages of the same family (for instance, in Babanki and Bum as well as Mokpe and Oroko) (Andrason & Akumbu 2024; Akumbu, Andrason & Mokeke forthcoming), as well as the areal properties of CACs (e.g., by comparing data from Maasai, Ihanzu, and Gorwaa, three members of the Rift Valley Sprachbund). Subsequently, we have analyzed the relationship of CACs with other lexical classes and linguistic categories: conatives directed to human addressees, other 2nd-person interactives (i.e., vocatives, attention signals, and imperatives), onomatopoeias and ideophones, and ultimately gestures.



Map 1: African languages included in our research program dedicated to CACs

The explosion of research on CACs described above forms part of a larger scholarly phenomenon. The end of the 20th century witnessed the growth of research on human-to-animal communication, expanding beyond the category of CACs and thus phonic/aural directives (see Noske 1997). This research has further intensified and gained its momentum in the 21st century as illustrated, *inter alia*, by the work of Mitchell (2001), Burnham, Kitamura & Vollmer-Conna (2002), Brandt (2004; 2006), Roberts (2004), Logue & Stivers (2012), Schötz (2012; 2014; 2020), Plec (2013a; 2013b), Mondémé (2018; 2019; 2020; 2023), Pika et al. (2018), Lohi & Simonen (2021), Cornips (2022), Harjunpää (2022), Simonen & Lohi (2021), Turner (2021), Szczepek Reed 2023).

3. Contextualization: Anthropocentrism and Posthumanism

3.1 Anthropocentrism

The scholarly marginalization of CACs and the manner with which these constructions have traditionally been described and analyzed in language science(s) can largely be attributed to the anthropocentric stance that historically permeated the global North and dominated the 20th century (linguistics).

In general terms, as its Greek etymology suggests it, anthropocentrism refers to an internally diversified cluster of views and doctrines that center (*κέντρον* ‘center’) the human (*άνθρωπος* ‘human, man’) and regard the human, or their positionality, as the (most) relevant, fundamental, dominant, and privileged (ten Have & Patrão Neve 2021:123). The various strands of anthropocentrism are sometimes grouped into three, not mutually exclusive, classes: perceptual, descriptive, and normative. Descriptive anthropocentrism centers ‘human’ issues and topics;

perceptual anthropocentrism privileges human sense-data and sensory organs; normative anthropocentrism formulates prescriptions in light of the assertion of human superiority (Mylius 2018:[2]).

As mentioned above, anthropocentrism has had a long tradition in the Western world – much more prominent than elsewhere (Thomsen & Wamberg 2020:19-20; ten Have & Patrão Neve 2021:123) – easily recognizable in the area of art, culture, religion, science, and philosophy (see Steiner 2005; Herbrechter 2013; Mylius 2018; Ferrando 2019; Taylor & Bayley 2019; Thomsen & Wamberg 2020:19; ten Have & Patrão Neve 2021; Lim 2023). Philosophy, which captures the artistic and intellectual spirit of any epoch and inversely shapes contemporary artistic and intellectual tendencies, has indeed commonly been marked by anthropocentric ideas. For example, anthropocentrism – or its elements – is present in Ancient Greece and the Renaissance; Christian medieval (pre-)scholastic and both religious and atheist existentialism; 17th c. rationalism and empiricism, 18th c. enlightenment, and 19th c. positivism; as well German idealism and (dialectical) materialism (see Steiner 2005; Kwok 2020; ten Have & Patrão Neve 2021). Anthropocentrism transpires in Socrates and Plato, Augustin and Aquinas, Descartes and Kant, Hobbes, Locke and Hume, Hegel, Feuerbach, and Marx, as well as Kierkegaard and Sartre – and many other continental philosophers (see Tatarkiewicz 2005 [1931; 1950]; Russel 1996 [1946]; Kołakowski 2009; Steiner 2005).

The central positionality of the human advocated by anthropocentrism – the human being the origin, goal, apex, and/or epicenter of any viewpoints and enquiries – implies some “qualitative difference” between human beings and the beings that are not human (ten Have & Patrão Neve 2021:123). It is these qualities, allegedly exclusive to humans but absent in the remaining species, that afford us a unique position in artistic, cultural, religious, philosophical, scientific, as well as

economic and environmental enterprises. The qualities usually viewed as human-only include (free) will, morality, rationality, consciousness, and language (see Kwok 2020:62-63 and the discussion therein; then Have & Patrão Neve 2021:123). As animals do not possess these qualities, their difference from humans is understood in terms of deficiency. For many thinkers, language plays the most pivotal role in this human-animal divide. It is not only one of the exclusive human attributes but constitutes the factor that underlies the other (presumed) human-only traits as well. Rationality, consciousness, and will are considered unique to humans because they all “manifest” through language and are “facilitated”, “induced”, and pre-conditioned by it (Kwok 2020:62-64).

A radical divide between humans and non-human animals with regard to linguistic capacities permeates both structuralist/Saussurean and generativist/Chomskyan traditions (Kwok 2020) – the two most dominant linguistic currents of the 20th century. According to the structuralist Saussurean school, language is the inescapable psychological reality of the speakers which only they can access (Pablé 2016). This means that language is a “human-specific concept” and communication, in turn, “just what is given as real by human languages” (Kwok 2020:65). As language and communication are intrinsically human, the issues of (any potential) animal language and communication are “superfluous” and their research futile, lying beyond the interest of de Saussure and structuralists (ibid. 65-66). The generative Chomskyan school views language as an abstract faculty (or competence): a ‘module’ within human cognitive capacities (Chomsky 2016:16). Universal Grammar models this (genetic legacy for the) language faculty in terms of a system of “the innate factors that determine the class of possible I(ndividual/internal/intensional)-languages” (Chomsky 2016:16). Language understood as Universal Grammar is the property of the entire human species “with no close analogue, let alone anything truly homologous, in the rest of the animal world” (Chomsky 2016:16). It is so because the language faculty emerged in humans

due to a sudden and small mutation – some type of “a rewiring of the brain” (ibid. 22) – that abruptly differentiated homo sapiens from non-human animals (ibid. 16). Therefore, although both humans and animals communicate, their communications are radically different. Only humans communicate with language because only they can access ~~to~~ the faculty of language, underlying communication (Chomsky 2016; Kwok 2020). This linguistic dissimilarity between humans and non-human animals is amplified by the claim that language did not emerge due to communicative pressures or as a communicative tool, nor did it originate in some simpler communicative systems that would be available to animals (Chomsky 2016:22). As communication between humans is qualitatively distinct from that practiced by other species, human communication is to be “prioritized in relation to animal communication” (Kwok 2020:65).

Overall, in the 20th century, human language and communication have been centered and viewed as either the only language/communication that exist and can/should be researched, or the language/communication type that is exceptional, qualitatively distinct from any other types accessible to non-human animals. As a result, human linguistic aspects that expand beyond the (core) language system (in structuralism) or the abstract language module (in generative grammar) have been marginalized. This particularly applied to CACs since they are *par excellence* used to communicate with animals. They draw on formal devices that often mimic or even “morph” what speakers perceive as animal communication and exploit non-verbal sounds, sounds made by other body parts than the mouth and vocal tract, or sounds made by external objects (additionally being closely related to other multimodal visual, haptic, and olfactory semiotic repertoires). Therefore, from a structuralist and generative vantagepoint, CACs such as the so-called {sound-1} in Togo-Teju-Kan and {object-1} in Bono and Fante do not constitute language and lie beyond the interest of linguistics. In Togo-Teju-Kan – a Dogon variety spoken in Dourou in Mali – speakers use

{sound-1} to summon poultry. This CAC is produced with the closed mouth and with the tongue and lips forming a labio-dorsal tension as if one was gathering saliva to spit. When the tongue is released from its position, the air and saliva move ingressive and jointly produce a “non-pulmonic deep dull sound” imitating a noise made by chickens (Andrason & Sagara 2024:16). Similarly, CACs that are produced with a tray of corn and a box of beans and used to call sheep in Bono and goats in Fante respectively (Andrason, Antwi & Duah 2023) do not fall within the scope of linguistic communication as it is understood by Saussurean and Chomskyan scholars. To conclude, the 20th century linguistic landscape – permeated by anthropocentrism – resulted in (and thus explains) the dearth of research on CACs during that period of time.

3.2 Posthumanism

The recent proliferation of studies on CACs radically contrasting with what typified the 20th century – in itself, part of the greater ‘explosion’ of research on human-to-animal communication – is, in our view, not accidental. It is a tangible manifestation of the impact exerted or, at least, the climate generated by one of the most significant philosophical currents of the present century – posthumanism (cf. Badmington 2000; 2006; Miah 2008; Wolfe 2010; Ferrando 2013; Herbrechter 2013; Nayar 2014; Ranisch & Sorgner 2014; Bolter 2016; Herbrechter et al. 2022).

Posthumanism is a young yet increasingly influential philosophy. It started emerging in the 90s of the 20th century but has been crystalized as a “theoretical and self-reflective discourse” only in this millennium (Herbrechter et al. 2022:3, 7). Posthumanism is a “umbrella” term and a heterogenous paradigm (Thomsen & Wamberg 2020:19). There are many definitions of posthumanism, some of which are “irreconcilable” (Wolfe 2010:xi), and disagreements as for what

posthumanism, posthumanist, and posthuman mean are not uncommon (Herbrechter et al. 2022). Part of this heterogeneity may be attributed to the radical pluri- and transdisciplinary orientation of posthumanism, visible in the presence of posthumanism in or its influence on virtually all fields of knowledge: philosophy *sensu stricto* and ethics, literary and cultural studies, media and communication studies, art and education, sociology and anthropology, politics and economy, ecology and animal studies (Badmington 2000; 2006; Bolter 2016; Herbrechter et al. 2022), as well as, relatively recently, linguistics (see *inter alia* Cornips 2020 and Kwok 2020).

Despite their diverse characteristics and discipline-related peculiarities, the various strands of posthumanism tend to exhibit certain commonalities (Thomsen & Wamberg 2020:19; Herbrechter et al. 2022:6). First, posthumanism is positioned against, beyond, and after humanisms.⁵ Posthumanism deconstructs and critiques humanism and its tenets, including “anthropocentrism, [humans’ ...] exceptionalism, and speciesism” (Herbrechter et al. 2022:4; see also Nayar 2014:19). In other words, posthumanism questions the assumption that “humanity [...] constitutes a center for orientation – a basic set of measures, values, and points of views” (Thomsen & Wamberg 2020:19).⁶ This deconstruction, critique, and questioning apply particularly to the tradition of centering “Western cultures” (ibid.) and “the white, [...], colonial, patriarchal structures”, which have underlain anthropocentrism and in which anthropocentrism has flourished the most (Herbrechter et al. 2022:6; see section 3.1). Second, posthumanism problematizes the

⁵ This spatial, temporal, and logical relationality of posthumanism transpires through the prefix ‘post-’, which may imply standing ‘against/contra’, ‘beyond/outside’, and ‘after’ (humanism or the human) (see Herbrechter et al. 2022:18-19).

⁶ This “decentering of the ‘human’ from the privileged place” is sometimes viewed as posthumanism’s core and its operationalized definition (Umbrello 2018:28).

very idea of ‘human’ and what humans are. It revises the identity and essentiality of our species and questions its distinctiveness from other animal species and machines (Badmington 2006: 240; Herbrechter et al. 2022:7). It not only redefines human qualities but also (and perhaps more importantly) questions the autonomy, self-containment, and isolation of humans and their subjectivity from the non-human species (Nayar 2014:19). Refusing the claim that humanity is separate from the other forms of life (Thomsen & Wamberg 2020:19) and hierarchically super-ordered in relation to them, posthumanism views the human as “an assemblage, co-evolving with machines and animals” and argues for “a more inclusive definition of life” (Nayar 2014:19). Third, given the above, posthumanism refutes “human instrumentalism”, that is, the right that humans usurp to control and alter other life forms and the world in general (Nayar 2014:19). In contrast with such usurping tendencies, posthumanism advocates for a deep moral and ethical sensitivity for fauna and flora and “responsibility to non-human life forms” (Nayar 2014:19) and, in its radical shape, argues for “multispecies social justice” (Herbrechter 2023:213).

The decentering of humans, the elimination of their superiority and exceptionality, the fluidity of humanity and its connection to other species (as well as machines, robot, and cyborgs), and the expansion of rights previously reserved to human beings to (at least some) non-human animals (Cavalieri 2001; Baxi 2020; Herbrechter 2023) is inevitably correlated with the rejection of the view that some qualities are limited to a human being or that the only forms in which these can exist are instantiated in the human. On the contrary, for posthumanism, at least some forms of the traits traditionally understood as exclusive to or exceptional in humans, i.e., free will, morality, rationality, and consciousness are also attributes of some non-human animals as well (Nayar 2014:12). This means that free will, morality, rationality, and consciousness do not separate us from nature but connect us to it.

The same applies to language – the field of our study. Posthumanism calls into question the positioning of language as the stronghold of human-ness and regarding it as an exclusive human characteristic. Rather, according to posthumanism, at least in some form or shape, language is the property of animals generally (Wolfe 2010; Nayar 2014:12, 125). Two types of this more inclusive view on language can be distinguished. According to a “weak” position, making, conveying, and decoding meaning is not the monopoly of human beings, but other species have access to it as well. That is, “they are able to relate words to referents or relate signifiers to signified concepts” (Kwok 2020:67). According to a strong position, non-human animals “have their own language(s)” (Kwok 2020:66). Animals not only communicate and are “communicating creatures”, but their communication can be “linguistic” (ibid.). The alleged lack of language(s) among non-human animals has stemmed from the anthropocentric orientation of linguistics. That is, the very concept of language was constructed from the position of “human superiority”, which by definition precluded the existence of other languages and communication types (ibid.). Overall: human communication/language and animal communication/language exhibit affinities such that the gap between them is much smaller than previously assumed; they constitute different yet related, rather than hierarchically opposed phenomena (whereby one would be more sophisticated or “better”, i.e., more language-like, than the other); and the “major communicational concepts humans have taken to be human-only actually have a nonhuman side to them” (Kwok 2020:67; see also pp. 66 and 68).

As anthropocentrism was synchronized with structuralism and generative grammar, posthumanism has its ally in cognitive linguistics – the dominant (formal) linguistic theory today. Cognitive linguistics prioritizes real meaning and communication instead of abstract system and schematic syntax; complexity and messiness instead of simplicity (binarism) and neatness; and

categories and definition governed by the ideas of prototypicality and family-resemblance instead of essentiality and common denominator (i.e., the inclusion into a category is gradient rather than of an either-or type; see Evans & Green 2006; Janda 2015). Given these characteristics, cognitive linguistics is compatible with and affords room for a much more flexible understanding of (human) language.

The unprecedented interest in CACs in the 21st century, especially evident in the present decade, and their inclusion in the models of several (African) languages are aligned with and contribute to the posthumanist context permeating our time. In consonance with posthumanism's view on human and animal communication, research on CACs lowers the extent of anthropocentrism and inversely broadens the limits of what is considered human language. Crucially, CAC scholarship brings to the fore many properties that have traditionally been excluded from or marginalized in human linguistics – and viewed as 'peripheral' or 'paralinguistic' – and generally associated with 'communicative resources proper' of non-human animals.

For instance, the category of CACs expands a human-language sound repertoire far beyond IPA phones (i.e., vowels, consonants, and approximants/semi-vowels) namely to whistles, kisses (i.e., vocal gestures that exploit anatomical and articulatory mechanisms that are the same as or highly similar to kisses), 'extra-systematic' phonation types, and vocalizations traditionally referred to as 'noises'. Even more radically, CAC scholarship treats as linguistic not only sounds produced orally by means of the vocal tract, but also sounds that are made with body parts other than the mouth and vocal tract (e.g., claps, snaps, and stamps) or even those made by manipulating objects. By considering tune-like melodic patterns as 'words', studies on CACs relate language to music and center tone even in non-tonal languages. CAC studies also link phonic substance to gestures by viewing the above-mentioned claps, snaps, and stamps (which constitute

phonic/auditory and gestural combinations) as genuine linguistic construction types. Furthermore, CAC scholarship expands the notion of morphology and syntax beyond their traditional realm as these are applied to not only to words made up with IPA sounds but also to ‘words’ and their combinations made up of whistles, kisses, whistles, claps, snaps, and stamps. The CAC category unveils the close relationship that exists between language and the ecosystem (both natural-physical and socio-cultural) and, contrary to arbitrariness defended in traditional human-language studies, demonstrates a profoundly non-arbitrary (motivated and iconic) character of language (Andrason et al. under review). The most radical expression of this is morphism (cf. Mondémé 2018) patent in CACs, that is, the adjustment of human speech to the communicative modes typical of – or intuitively attributed to – animals. The morphic facet of CAC itself constitutes the connection between the human language understood narrowly (typical of the 20th century) and what is argued to be animal language or communication. It is the register in which humans speak some type of (perceived) ‘animal-ish’.

4. Critique: Whiteness and White Crisis

The posthumanist paradigm shift, the essence of which we explained in the previous section, has certainly had some – perhaps, even considerable – positive impact on CAC linguistics. The most evident benefit is the very explosion of research on conative calls used in interactions with animals. CAC scholarship, in turn, further contributes to the flexibilization and problematization of the concept of language and the inclusion of several phenomena formerly excluded from or marginalized in linguistics to the linguistic field. Overall, language and its studies, including human communication with animals, become richer and more nuanced.

While the above is undeniably true, posthumanism-infused linguistics and thus research on CACs also have a problematic aspect to them. This “dark(er)” side of posthumanism is quite evident if it is evaluated from an African perspective, which is the vantage point of the authors’ of the present article. That is, similar to what has been proposed with regard to transhumanism (Zimmerman 2008; Ali 2021; see further below), which is a related intellectual current, to a considerable degree overlapping with posthumanism – often transhumanism is viewed as a branch of the broad posthumanism movement and, in such cases, the posthumanism described in the present article is referred to as ‘critical’ (More 1990; 2009; 2013; Hughes 2012; Ferrando 2013; Ranisch & Sorgner 2015; Hofkirchner & Kreowski 2021; Herbrechter 2021; Herbrechter et al. 2022) – we think that posthumanism can and should be understood as a manifestation of Whiteness (Wester-ness) and a reaction to White crisis.

To begin with, as noticed by several scholars, Whiteness and its reincarnation in the concept of the West (see below) are characterized by an “in-built” propensity to perceived vulnerabilities and crises. Indeed, since the end of the 19th century and throughout the 20th century until the present day, the White/Western civilization has often been claimed to be under menace or attack and viewed as “doomed” (Bonnett 2008a:25). Following Ali (2019:211), as well as Bonnett (1998; 2000; 2005; 2008a; 2008b), we define this White crisis as “a situation in which a hegemonic Whiteness is subjected to increasing contestation by the nonwhite⁷ ‘other’, engendering a heightened sense of anxiety and threat among those racialized as white expressed through various discursive formulations, and prompting a variety of responses” (Ali 2019:211). As the above

⁷ We are aware that this is a problematic term, from the perspective of Black Consciousness thought. As Biko (1978) reminds us ‘non-white’ denotes a distinct subject position. For Biko, non-white[s] are people who, although discriminated against by law and/or tradition, still reveal an attitude of aspiring to whiteness.

definition suggests, the vulnerability of Whiteness has its roots in a claimed “white hegemony” (ibid. 209) or “white supremacy” (Bonnett 2008a:19). Because Whites and their state, economical, and cultural institutions had increasingly been gaining control of the world, and continue to do so, Whiteness and being White were understood as the (self-claimed) synonym and expression of great achievements, progress, and cultural and biological superiority – “the talisman of world-wide social authority” (ibid. 26; see also p. 16). As a result, any challenge or opposition to this usurped position, any protest against it, and any more equitable placement of the so-called ‘nonwhite other’ in power hierarchies become interpreted as exponents of the weakness of Whites, threat to their civilization and values (whatever these might be), and ultimately signs of their decay (ibid. 26).

This feeling of fret and the premonition of an imminent catastrophe of Whiteness became clearly discernable for the first time at the turn of the 19th and 20th century in response to two geopolitical events: the battle at Adwa in 1896 in which the Italian army was routed by the Ethiopians forces and, more importantly, the defeat of the Russian Empire in the Russo-Japanese war in 1905 (Bonnett 2000; 2005; 2008a; 2008b). One of the most significant effects of this first crisis of white identity was the adoption of the idea of the West instead of Whiteness (Bonnett 2008a:26). The racialized language of White (civilization) was suddenly viewed as anachronistic and replaced by the terms West, Western, and Westerner (Bonnett 2008a:17-18; see also Bonnett 2000, 2005, 2008a, 2008b). This new idea of the West was further crystalized and solidified in response to other historical incidents of the 20th and 21st centuries, especially, the Russian revolution of 1917, the post-war hegemony of the United States, the dismantlement of colonies in the second half of the last century, and the consolidation of the European Union (Bonnett 2008a; 2008b). Each of these events “ma[de] the idea of the West [...] more important [and] more

necessary” (Bonnett 2008a:23). However, with the change of the name, the perception of the threat – and the obsession with it – did not cease. Given that, similarly to Whiteness, (the concept of) the West is related to supremacy and “global mastery” (see the next two paragraphs), such inflated ambitions have kept it in a state of permanent “vulnerability” (Bonnett 2008a:23).

While the replacement of the term White(ness) by West(erner) which, as we explained above, took place at the turn of the 19th/20th centuries due to White crisis, may seem cosmetic; the West is more than just a euphemism or a more palatable substitute for the problematic term White (Bonnet 2008a). Like Whiteness, the concept of the West “operates within [...] landscapes of power and discrimination” although modified given the changed world situation, and pertains to the areas of economy, culture, politics, and yet again race (ibid. 18). The “magic” of the idea of the West is that it made it possible (and still does so) to bypass or rather camouflage race as a focus of discourses (ibid. 22). Instead of a race, it defines a group of people as a civilization: “a socially exclusive cultural heritage as well as a broad territorial community” (ibid.) and some type of a “spirit [or] consciousness that is intellectually far-seeing and militarily enforced” (ibid. 24). Due to this overt abstractness sophisticatedly embedded in and codified through culture and philosophy, and even ethics and esthetics, and the covert racialization still present although subtly concealed, the idea of the West seems to us even more dangerous and perhaps damaging than the concept of White(ness). It racially oppresses the other(s) within an apparent non-racial framework.

The concept of White referring to a specific group of people – which predated the West – had itself been employed for the first time in the 16th century in response to the colonization of the Americas (Garner 2007:64 citing Taylor 2005; see also Ali 2019:209).⁸ Importantly, from its very

⁸ In contrast, the term ‘white race’ “as a transnational homogenous bloc” is first mentioned in the mid 19th century (Garner 2007:8).

conception, Whiteness was not confined to race but rather conflated racial ideas with a religion (Christianity) and geography (Europe). This provided “moral, cultural and territorial content to Whiteness” (Bonnett 1998:1039; see also Garner 2007:63). This fact made possible the very transition from White to West in the course of the White crisis described above. Indeed, some propose that this entanglement (religion, geography, and race) should be understood in a chronological manner as “a sequence of master signifiers”: from Christian to European, next to White, and eventually, due to the 19th/20th century White crisis, the West (Ali 2019:210). As the concept of Whiteness tacitly amalgamated the ideas of race, religion, and geography, so does the idea of the West. The West is inherently connected to Whiteness, Judeo-Christianity, Europe and its colonial legacies (Bonnett 2008a:8; see also Bonnett 2005). Now, however, after the 19th/20th century crisis, since as we explained above the racial undertones had to be camouflaged, the cultural and geographical facet gained in visibility and tends to be emphasized: The supremacy of the West is thus phrased in more cultural, political, economic than biological terms and portrayed as “a soft power” (Bonnett 2008a:17). For instance, the superiority of the West is claimed to transpire in the fact that “people want to live Western lives [and] seek the freedoms of the West” (Bonnett 2008a:17). Therefore, for the West to triumph, “all that needs to happen is that world ‘opens up’, begins to see things ‘our way’ and acts accordingly” (Bonnet 2008a:26). This demonstrates that the idea of supremacy is still vivid, and “victory” is still possible. As was common in the past, the voice about the doomsday of White[s] and the West is echoed by even more voices claiming Western domination, supremacy, and eventual triumph (Bonnett 2008a:25).

Importantly for our argument, on top of the other amalgamations typifying White[s] and the West that we have explained above, there is “a long legacy of conflation of the[se] terms with the category of the human” (Ali 2019:210). White/Western is (viewed as) human and/or hyper-

human; in contrast, non-White/non-Western is (viewed as) sub-human, non-human, and/or *animal-like*. That is, Black subjects – who, within Biko’s (1978) understanding of term Black, also include other racialized and colonized people – are stripped of their humanity to the extent that one can no longer recognize them as humans – they are more similar to animals. Dehumanization, therefore, inevitably leads to animalization (Baumeister 2021).

This dehumanization and animalization started in the mid-17th century (although their traces may be identified much earlier, concurrently to the territorial expansion of the 16th c.),⁹ were further crystalized by the rationalism, romanticisms and materialism of the 18th and 19th centuries, intensified throughout colonialism’s highpoint in the late 19th and 20th centuries, and have continued till the present day (Fanon 1963; 1967; Mama 1995; Césaire 2000; Mbembe 2001; Maldonado Torres 2016; Eichler & Baumeister 2020; Baumeister 2021). Although this “reduction to animality” have adopted various forms and meant many things – e.g., “bestiality, savagery, disposability, unruliness” (Brito 2024:10), ferocity, aggressivity, and hyper-sexuality, as well as lack of reason, intellect, reflection, faith, morality, and consciousness (Eichler & Baumeister 2020; Baumeister 2021) – two conceptualizations have been particularly common. On the one hand, racialized bodies have been viewed as “predators [...] invok[ing] feelings of dread, fear, and danger” (Eichler & Baumeister 2020:305). On the other hand, they have been regarded as “pests” generating the sensations of “disgust, contempt” (ibid. 306) and “revulsion” (ibid. 308).

⁹ See, for example, the papal bull ‘Inter Caetera’ “Doctrine of Discovery” issued by Pope Alexander VI in 1493 giving free reign Christian princes to colonize lands and usurping the sovereignty of those lands as long as no other Christian prince had laid claim to the lands. Inter Caetera was later used by the US Supreme Court in the 1823 case Johnson v. McIntosh. In that judgement that the principle of discovery was said to give ‘western nations’ divine right to usurp lands wherein indigenous people were already living.

For instance, According to Hegel, a Black being was an “animal man”. In Hegel’s opinion, “nothing consonant with humanity is to be found in [the] character” of a Black person ([1975]:177); in fact, “contempt for humanity” and “lack of respect for life” are Black man and women’s distinguishing property (ibid. 185). An analogous view can be found in Kant’s writing. For him, Blacks were sub-persons similar to animals. Although Kant does not deny Black subjects the inclusion in the class of the human species, he does deny them “the full menu of human nature” (Baumeister 2021:960). That is, as elegantly put by Baumeister, Kant regards the human nature of Black people as “human nature bereft of humanity” (ibid.); that is, the Black “is human not by virtue of the possession of humanity, but by their animality alone” (ibid.).

This was exactly how Fanon (1963; 1967) experienced being Black when approached from a White colonial gaze. Fanon was aware that “the settler considered him to be an animal” (1963:140; see also 1967:86) – a “beast” (1967:131) – and “treated him as such” (1963:140). For example, when referring to Black people, the Whites resort to “zoological terms” (Fanon 1963:42) and reduce the Blacks to biological aspects: brute force, pure body, nakedness, and sexuality (Baumeister 2021:961-965). Similarly, during the colonization of Americas, dehumanization and animalization “served to place beings in their proper place in the ontological and moral hierarchy”: (Eichler & Baumeister 2020:301). While White colonizers occupied the top as the supreme incarnations of humanity, the colonized “were seen to be more animal, and so less properly human” (ibid). It was this dehumanization and animalization of the colonized people that justified, in turn, their subjugation to the White colonizers and their exploration (Eichler & Baumeister 2020:296). That is, dehumanization/animalization has been “a technology of settler colonialism” (ibid. 297) and the foundation of “settler colonial extractivism” (ibid.), including their dispossession from the

land (ibid), debilitation of “traditional kinship relation”, and destruction of “relationships between humans and other animals” (ibid. 311).

The dehumanization and animalization of races other than the White one continue to the present day (Eichler & Baumeister 2020:305) and the view of the animality of racialized bodies remains “paramount in [...] white supremacist contexts” (Brito 2024:9). For instance, with regard to Native Americans, it is palpable in popular culture, e.g. in Western films and animal-like mascots of sport teams (Eichler & Baumeister 2020:310). Recently, a disproportionate exposure of immigrants coming to Europe to police dogs’ bites has been viewed as the consequence of the dehumanization and animalization of racialized bodies and their resultant edibility (Brito 2024:3). Labeling Palestinians as ‘(human) (bloodthirsty) animals’, ‘(wild) beasts’, or ‘cockroaches’ is the latest reenactment of colonial dehumanization and animalization of Indigenous people.

Therefore, after considering the points made above and knowing that most Black and global-South human beings are denied their humanity because of the past and present oppressions exerted by the Whites and the global North, the posthumanist extension of human rights to non-human animals advocated by racially, socially, and economically advantaged white global-North *intelligentsia* and the diffusion or elimination of the very idea of humanity by those whose humanity has (always) been unchallenged, seem cruel. From the context where Black people were historically viewed as sub-human, posthumanism appears to center and universalize Whiteness and its epistemes because it approaches reality from the vantagepoint of white subjects imbued with racialized privileges.

To begin with, it has recently been argued that transhumanism or the technological type of posthumanism where humanity is extended to transhuman robots and cyborgs (see More 1990; 2009; 2013; Bostrom 2005; Hughes 2012; Ferrando 2013; Ranisch & Sorgner 2015; Herbrechter

2021; Papagni 2021; Herbrechter et al. 2022) is a manifestation of Whiteness and emerged as a response to White crisis (Ali 2019; 2021). This was initially supported by the demographics of transhumanism's advocates, which profiles the movement as "hegemonically white, male and Western" (Ali 2021:175). According to the self-classification of transhumanists, 85% are White, 3% Asian, 1% Black and the remaining 10% are "multiple races" (Pellissier 2013). Only 35% of them view themselves as anti-racist (Hughes 2017 in Ali 2021). More importantly, likely as a result of the "hegemonic Whiteness" mentioned above, the transhumanist enterprise has been "forged in opposition to the racialized 'other'" (Ali 2021:176) and eventually "re-articulat[es...] white supremacy in techno-scientific form" (ibid. 177). At least according to some, transhumanism constitutes "a Eurocentric/West-centric/white-centric phenomenon" (ibid. 176) and a "techno-scientific response[...]" to White crisis (ibid. 181). In stronger terms: "Transhumanism [is claimed to be] Whiteness" – it is both "racial" and "racist" (ibid.). Indeed, from a decolonial perspective and from the vantage point located outside of the West – as is the case of Ali (2019; 2021) – transhumanism serves as "a rhetorical strategy for maintaining hegemony under contestation" (Ali 2019:219): it preserves and reinforces the asymmetrical structure of power relations "between the (formerly) human (white [and] Western [...]) and its subaltern "other," [...] as the latter contests the Euro-centric terrain of the human" (Ali 2019:218). A clear manifestation of this is the "Western salvation narrative" underlying transhumanism (Zimmerman 2008:356). That is, transhumanism replaces the eschatological discourse of human self-annihilation with the belief that technologically transhumans will "radiate intelligence, creativity, power, and compassion" and "transform the entire universe into an all-powerful intelligence" (ibid.). This perpetuates and expands the discourse of salvation that is "overwhelmingly shaped by "white saviors" self-tasked with finding solutions to the apocalyptic problem of existential risk, a problem [...] of their own

making” (Ali 2019:216). Within the context of incessant White crisis, transhumanism thus appears as an “urgen[t] techno-scientific [...] fix” to the current, very serious global situation (ibid. 218). Again, when examined from the non-West perspectives, it is difficult not to see it as an “iteration [...] within the structural [...] logic of [...] racism (ibid.).

Analogous arguments for Whiteness and white-crisis origins – perhaps even stronger and more evident – can be made in the case of posthumanism, which as we explained above extends humanity and human rights to non-human animals. Certainly, as far as we know, no precise statistics of posthumanists’ demographics are available. Nevertheless, a cursory review of posthumanist authors, especially those most influential and widely cited, which we effected for the purpose for this article, reveals a situation that is highly comparable to that observed among transhumanists: most scholars are white and/or located in the West.

More importantly, within the context of the current climatological and environmental disaster, posthumanism constitutes another type of “fix” that too appears to be triggered by the anxiety arisen from the ever-present White crisis. When faced with the environmental catastrophe and the devastation of other species that he is, in large part, responsible for and when confronted with their own racisms, whether systemic/structural or personal/relational, the White/Western subject opts for species-blindness. He, for it is always he, proclaims that ‘all species matter’ and that ‘a species category is not important’. The phenomenon would thus be an extension of ‘race blindness’. Race blindness is another well-documented expression of Whiteness and a response to White crisis whereby, in reaction to crisis “prompted [...] by contestations of Eurocentric/West-centric/white-centric conceptions of the human” (Ali 2021:181), the White/Western claims that all races matter or that race is not important. While for transhumanism the response to this anxiety is techno-scientific and pertains to robots and cyborgs, for posthumanism it primarily concerns other

non-human animal species.¹⁰ In this manner, the humanity previously associated with humans – in fact, as we explained above, only a certain group of them – is extended to non-human species and ultimately diffused. Those whose humanity has never been questioned but has on the contrary often been magnified, relinquish it by including in it other animal creatures. We think that they do so because they have been perceiving humanity as their inherent, constant, self-evident, and unthreatened quality. For an imaginary outsider – someone who does not know the history of our planet – and certainly for many privileged Whites/Westerners, this may look like an act of magnanimity. However, for those whose humanity has not only been questioned, but also entirely erased – many of whom still struggle to reclaim it in the eyes of the privileged and continue to be referred to as ‘animals’, ‘beasts’, ‘cockroaches’, ‘insects’, etc. – as well as for decolonial scholars who are well aware of the (history of) power relationships underpinning the world, such a relinquishment is deeply problematic. While the privileged White/Western subjects may see the relinquishment of their humanity as a solution to current moral issues and the environmental crimes that the West has committed (Böhm, Misoczky, & Moog 2012; Grosfoguel 2006), especially against animals, for a racialized under-privileged other, this seems not only as the justification of the non-human treatment they experienced in the past but also as an incitement to be further dehumanized in future. Overall, like transhumanism (cf. Ali 2018:218), posthumanism seems, at least to some extent, yet another “iteration” of racism.¹¹

¹⁰ Both responses – the transhuman(ist) and posthuman(ist) – may be seen as “occur[ring] in parallel with [...] the phenomenon of ‘White Backlash’” (Ali 2017a:219).

¹¹ Here, we are principally invested in a critique of the meanderings through which the West and its logics vis-a-vis the construct “human” enters academic imaginations and discourses in ways that obscure our inability to sufficiently confront the questions of the human originating in whiteness reinscribing itself as epistemes sans origin. That is, how

5. Conclusion

We do not think that our critique of the problematic side of posthumanism should be interpreted as an attack on this intellectual current. Much of what posthumanism has brought – and, we are convinced, will bring in the near future – is highly valuable, beneficial, and even admirable. In this article, we wanted to draw attention to some problems present in this powerful movement to make its proponents more aware of potential dangers. We are principally invested in a critique of the meanderings through which the West and its logics vis-à-vis the construct “human” enters academic imaginations and discourses in ways that obscure our inability to sufficiently confront the questions of the human originating in whiteness reinscribing itself as epistemes sans origin. That is, first, how to problematize the glossing over our inability to deal with the conditions of humans who are denied their full humanity. Secondly, the readiness of scholars to invoke ecological disasters and conservation to recenter what they find palatable (Hughey 2023): the positioning of non-human animals now firmly rooted outside of understandings of the animal in its *sui generis* sense.

Certainly, as observed by Carrico (2012) – and echoed by Ali (2019; 2021) – “one can benefit from racist legacies or mobilize racist discourses without necessarily affirming racist beliefs, indeed while earnestly affirming anti-racist ones” (Carrico 2012, para. 2). Therefore, the Whiteness and eventually racism of posthumanism need not – and we believe in the case of most

to problematize the glossing over our inability to deal with the conditions of ‘humans’ who are denied their full humanity and the readiness of scholars to invoke ecological disasters and conservation to recenter what palatable: non-human animals.

scholars do not – imply “unalloyed bigotry” (ibid.). (For instance, consult Herbrechter et al. 2022, who critique the Whiteness, coloniality, and patriarchy of anthropocentrism as mentioned in section 3.2 above) This doesn’t however mean that such white-centered and racist elements are not present in the posthumanist project. Knowing how Whiteness and racism operate at a systemic level and how deep their structural range is, to think that they would not be present in a philosophy that has emerged in the West and gradually dominated it, would simply be mistaken. Anything that comes from the West is from a systemic and structural perspective related to Whiteness and racism. The task is to identify it, critique it, and mitigate these undesirable “inevitableities”. While doing so, we must remember what Fanon (1963:43) said: “the native [...] knows that he is not an animal”.

Lastly, the conclusions of our article should not be interpreted as the criticism of studying conative animal calls, advancing research on human-to-animal communication, and/or promoting a broader, more flexible, and more inclusive view on language. On the contrary, we encourage these types of studies and approaches to language science. (We are also convinced that animals (and plants) deserve protection, care, and compassion.) We do however think that as conscious scholars committed to social justice and decolonialization, we are obliged to reflect on what our own research and views potentially mean and what their historical connections and philosophical implications may be. We take seriously the call raised by Decolonial Feminists to understand the historical moments into which our scholarship enters (see Kessi, Boonzaier, & Gekeler, 2021). We have positioned as equally important the need to historicize the discourses into which we are interpellated. Lastly, we have argued that it is foolhardy to gloss over contemporary realities of being in the world in our imagination of ‘just life worlds’. Again, knowing all this will hopefully prevent us from involuntarily reinforcing positions which are contrary to what we believe in and with which we disagree passionately.

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