

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 a ‘white crisis’.

Keywords: Human-to-animal communication, conative animal 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 a particular time's intellectual and cultural *Zeitgeist*. 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 (westernness) and a white crisis.²

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

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.

² Drawing on Canham (n.d.) and Boonzaier et al. (in press), we do not capitalize the words 'white', 'whiteness', and 'black', as well as, by extension, 'westerner' and 'westernness' – except in direct quotes when we follow the spelling used in the original. In contrast, we capitalize the noun 'the West'.

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

- (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, and any other sounds labeled as non-articulated ‘noises’), visual (e.g., gestures as well as facial and whole-body expressions), 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).³ Crucially, 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

³ These other communicative strategies, both regarding form and function, should not be viewed as disconnected from CACs. For instance, the above-mentioned non-phonic/aural modalities are often combined with CACs and, in some cases, obligatorily accompany CAC constructions. This fact stems from the very multimodality of CACs themselves. That is, although as explained above, CACs always contain a phonic/aural element, this phonic/aural substance is, in the case of some of them, produced not by the mouth and vocal tract, but rather through the use of fingers (snaps), hands (claps and spansks), legs/feet (stamps), and objects. As a result, the performance of these CACs by a human and their comprehension by an animal requires the involvement of gestures and whole-body movements (see sections 3.1 and 3.2).

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; Azarkh 1977). 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 for Polish and Ameka 1992 for Ewe, as well as Poyatos 1993 for paralinguistic signs more broadly) or constitute general grammars of individual languages (see, e.g., Doke 1954; Van Eeden 1956; Du Plessis 1978 for Xhosa and Brauner 1993 for Shona). In both cases, the analysis of CACs is ancillary and/or minimal. The examples of these types of studies involve Awtuw (Feldman 1986), Georgian (Hewitt 1995), Mayali (Willins 1992), Muna (Van den Berg 1989), Noon (Soukka 1999), Southern Sotho (Guma 1971), Tamazight varieties (Renisio 1932), Tswana (Cole 1955), Zulu (Doke 1954; Van Eeden 1956), and Xhosa (Du Plessis (1978), as well as, with regard to syntax, Polish (Grochowski 1988).⁴ Additionally, CACs

⁴ Of course, there are many other studies of this type. Those that we enumerate above are, in our opinion, the most relevant.

– 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).⁵ 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.⁶ 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 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 (Kandakova 2003; Daković 2006; Ivanov 2014; 2016; Tishina & Mandzhieva 2024), in Omotic languages, i.e., Zargulla, Wolaitta and Maale (Amha 2013), and in Finnish (Jääskeläinen 2021).⁷ 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

⁵ More examples of dictionaries containing CACs may be found in Andrason (2023).

⁶ Some comparative evidence from Greek, Latin, and Germanic languages may also be found in Schwentner's (1924) study of interjections (see also Buck 1949).

⁷ The article published by Ivanov in 2016 also concerned a Finno-Ugric language – Hill Mari.

2003) and Konso (Orkaydo 2013) – with Lithuanian constituting an exemplary case (Ambrazas 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.⁸

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 (more or less) principled manner: Xhosa, Chinyungwe, Kihunde, Lingala, Mokpe, Oroko, and Ihanzu – seven Bantu languages spoken in South Africa, Mozambique, Congo, and Cameroon (Andrason 2022); Babanki, Bum, Kenyang, and Menka – four Bantoid languages spoken in Cameroon (Andrason & Akumbu 2024); Asante, Bono, Fante, and Ewe – four Kwa languages (or varieties) spoken in Ghana (Duah, Andrason & Anwti 2023; Andrason & Gafatsi forthcoming); Macha Oromo, Gedeo, Somali, and Gorwaa – four Afro-Asiatic languages spoken in Ethiopia, Somaliland, and Tanzania (Andrason, Mukugeta

⁸ Of course the division between the 20th and 21st-c. CAC scholarship is less clear-cut than suggested in the above discussion. The interest in CACs and human-to-animal communication was gradually intensifying towards the end of the last millennium. The research activity of Poyatos, spanning the turn of the century (see the publication dates of his two main book, i.e., 1993 and 2002), illustrates this clearly.

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 2024); 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 (see Andrason & Sagara 2024; Andrason & Akumbu 2024); the identification of the motivations responsible for the so-called consonantal nature of CACs and their lesser sonority; 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) (Duah, Andrason & Anwti 2023) and closely related languages of the same family (for instance, in Babanki and Bum, Mokpe and Oroko, and Ewe and Akan; Andrason & Akumbu 2024; Andrason & Gafatsi 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. Recently, we made most of our data available to scholars and the public and complemented them with evidence from several other sources mentioned above (Andrason et al. 2024). This publication contains 1520 entries from 140 languages and is the largest crosslinguistic database of CACs in scholarship.



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 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), and 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 permeated the global North and dominated the 20th century (linguistics).

In general terms, anthropocentrism refers to an internally diversified cluster of views and doctrines that, as its Greek etymology suggests, 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: descriptive, perceptual, 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 epoque and inversely shapes contemporary artistic and intellectual tendencies, has been commonly 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 inquiries – implies some “qualitative difference” between human beings and those that are not human (ten Have & Patrão Neve 2021:123). It is these qualities, allegedly exclusive to humans but absent in other 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; ten Have & Patrão Neve 2021:123). From such an anthropocentric viewpoint, animals do not possess these qualities, and 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. 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 speakers, which only they can access (Pablé 2016). This means that language is a “human-specific concept,” and communication, in turn, is “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 apparently 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 the faculty of language underlying communication (Chomsky 2016; Kwok 2020). This linguistic dissimilarity between humans and non-human animals is amplified by the Chomskyan 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, viz. superior to it, 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 exists and can/should be researched or the language/communication type that is exceptional, qualitatively distinct from, and superior to 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 resulted in a logocentrism: any type of language or communication that was not oral was viewed as non-linguistic. In this manner, linguistics excluded many communication modes typical of non-human animals (e.g., signals made with the tail, ears, and fur or by modifying skin color) and conceptualized them as paralinguistic at best.

This marginalization applied to CACs since they are *par excellence* used to communicate with animals. As we explained in section 2, CACs draw on formal devices that often mimic or even “morph” what speakers perceive as animal communication and exploit non-verbal sounds,

sounds made by body parts other 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). For example, speakers use a highly extra-systematic CAC to summon poultry in Togo-Tenju-Kan – a Dogon variety spoken in Dourou in Mali. This CAC is produced with the closed mouth and 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 ingressively and jointly produce a “non-pulmonic deep dull sound” imitating a noise made by chickens (Andrason & Sagara 2024:16). Similarly, CACs used to call sheep in Bono and goats in Fante that are produced with a tray of corn and a box of beans, respectively (Andrason, Antwi & Duah 2023). From a structuralist and generative vantage point, all such CACs do not constitute language. They thus lie beyond the interest and scope of linguistics 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.

3.2 Posthumanism

The recent proliferation of studies on CACs, in itself, part of the greater ‘explosion’ of research on human-to-animal communication, is, in our view, not accidental – similar to the marginalization of CACs in language science typifying the 20th century, which we described in the previous section. Quite to the contrary, this scholarly ‘explosion’ 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; Jackson 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 an “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 to what posthumanism and 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.⁹ 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 [...]

⁹ 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).

constitutes a center for orientation – a basic set of measures, values, and points of views” (Thomsen & Wamberg 2020:19).¹⁰ 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 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, robots, and cyborgs), and the expansion of rights previously reserved to human beings to (at least some) non-human

¹⁰ This “decentering of the ‘human’ from the privileged place” is sometimes viewed as posthumanism’s core and its operationalized definition (Umbrello 2018:28).

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 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.¹¹

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:

¹¹ Of course, all of these decisions and commitments regarding decentering humans are made by humans and carried out from a human perspective and its (still dominant) position. Such an approach seems, therefore, to paradoxically and perhaps inevitably re-inscribe some anthropocentrism and make it present even within the posthuman(ist) agenda.

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 unitary cognition (cf. the generalization principle) instead of modularity (i.e., the separation of language from other cognitive abilities and its partition into separated submodules); meaning and usage instead of abstract system and schematic syntax; encyclopedic instead of truth-conditional semantics; motivated character of language (through embodiment and metaphor/metonymy) instead of its arbitrariness; complexity, messiness, and dynamics instead of simplicity (binarism), neatness, stasis (synchrony); 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 Langacker 1987; 1991; Croft & Cruse 2004; Evans & Green 2006; Lewandowska-Tomaszczyk 2007; Janda 2015; Bergen 2015; Taylor 2015; for a detailed discussion of the various aspects of cognitive linguistics consult also Geeraerts & Cuyckens 2007 and, Dabrowska & Divjak 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 visual modalities, especially gestures (not only manual but also those that involve other body parts), by viewing the above-mentioned claps, snaps, and stamps (which constitute phonic/auditory and gestural combinations) as genuine linguistic construction types. Indeed, several of such CACs are communicatively incomplete, and an animal addressee would not respond accordingly should the visual modality be absent or not activated. For instance, uttering a CAC need not be felicitous if a particular gesture leading to the production of a sound is not performed or if the sound is not made with an appropriate object. Furthermore, CAC scholarship expands the notion of morphology and syntax beyond their traditional realm as these are applied not only to words made

up with IPA sounds but also to ‘words’ and their combinations made up of whistles, kisses, 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. 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, the recognition of its inherent multimodality, 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 (westernness) 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 ‘nonwhite other’,¹² 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 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 statal, economical, and

¹² 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.

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, a 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 discernable for the first time at the turn of the 19th and 20th centuries in response to two geopolitical events: the battle at Adwa in 1896 in which Ethiopian forces routed the Italian army 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 (Bonnet 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 western(er), which, as we explained above, took place at the turn of the 19th/20th centuries due to the 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 somewhat 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 aesthetics, 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 transition from white to western/West in the course of the white crisis described above was possible because of the properties of the idea of whiteness itself. The concept of white referring to a specific group of people – which predated the West – had 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).¹³ Importantly, from its very conception, whiteness was not

¹³ In contrast, the term ‘white race’ “as a transnational homogenous bloc” is first mentioned in the mid 19th century (Garner 2007:8).

confined to race but rather conflated racial ideas with religion (Christianity) and geography (Europe). This provided “moral, cultural and territorial content to Whiteness” (Bonnett 1998:1039; see also Garner 2007:63), enabling its substitution by westernness). Indeed, some propose that this entanglement (religion, geography, and race) should be understood chronologically as “a sequence of master signifiers”: from Christian to European, then 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 facets gained visibility and tend 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 the 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.),¹⁴ 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” has 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).

¹⁴ See, for example, the papal bull ‘Inter Caetera’, the “Doctrine of Discovery,” issued by Pope Alexander VI in 1493. This bull gave free reign to Christian princes to colonize lands and usurp the sovereignty of those lands as long as no other Christian prince had laid claim to them. The US Supreme Court later used Inter Caetera in the 1823 case Johnson v. McIntosh. In that judgement, the principle of discovery was said to give ‘Western nations’ the divine right to usurp lands where 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 men 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’ 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, white people may resort to “zoological terms” (Fanon 1963:42) and reduce black people to biological aspects: brute force, pure body, nakedness, and sexuality (Baumeister 2021:961-965). Similarly, during the colonization of the 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). 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 sports 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 white people 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 vantage point 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 profile 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 the 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 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, dire global situation (ibid. 218). Again, when examined from the non-western 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 this article, reveals a situation 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 arising from the ever-present white crisis. When faced with the environmental catastrophe and the devastation of other species that they are, in large part, responsible for and when confronted with their racism, whether systemic/structural or personal/relational, the white/western subject opts for species-blindness. The white/western 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 the white crisis whereby, in reaction to the situation “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 to maintain a

hierarchical power relation, for posthumanism, it primarily concerns other non-human animal species, and the hierarchical power relation operates covertly through the obfuscatory means of ontological flattening.¹⁵ That is, the humanity previously associated with humans – as we explained above, only a particular 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 other animal creatures in it. We think they do so because they have perceived 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 indeed 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 relations that underpin the world, such 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 (Grosfoguel 2006; Böhm, Misoczky & Moog 2012), 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.

¹⁵ Both responses – the transhuman(ist) and posthuman(ist) – may be seen as “occur[ring] in parallel with [...] the phenomenon of ‘White Backlash’” (Ali 2017:3).

5. Conclusion

Our critique of the problematic side of posthumanism should not 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 valuable, beneficial, and even admirable. In this article, we wanted to draw attention to some problems within the posthumanist movement to make its proponents more aware of potential dangers. We are principally invested in a critique of the meanderings through which the western logic vis-à-vis the construct “human” enters academic imaginations and discourses. The ways in which this logic operates obscure our inability to sufficiently confront the questions of the human originating in whiteness, reinscribing itself as epistemes sans origin. First, we problematize the glossing over our failure to deal with the conditions of humans who are denied their full humanity. Secondly, we problematize 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 *sui generis* sense.

Indeed, 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 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 be mistaken. Anything that comes from the

West is from a systemic and structural perspective related to whiteness and racism. The task is identifying, critiquing, and mitigating these undesirable “inevitableities.” While doing so, we must remember what Fanon (1963:43) said: “the native [...] knows that he is not an animal”.

The conclusions of our article should also not be interpreted as a criticism of studying conative animal calls, advancing research on human-to-animal communication, and/or promoting a broader, more flexible, and more inclusive view of language. On the contrary, we encourage these types of studies and approaches to language science. We indeed think that, if developed appropriately, CAC studies could offer a unique opportunity for language studies, resisting the reinforcement of anthropocentric frameworks and the perpetuation of colonial violence. So far, despite contributing to the weakening of anthropocentrism in linguistics, as argued in our article, CAC research has primarily operated from the position of human superiority. It is so because CAC scholarship seems to validate animal communication by showing the proximity of human language to animal communication and, thus, the latter's proximity to human language. By doing so, CAC linguistics paradoxically reinforces an anthropocentric logic even if it aims to challenge it. Therefore, to avoid this, a more radical agenda of CACs research is needed – one that would reimagine what language (as well as the other relevant qualities such as rationality, free will, and morality) is from the perspective of human-*and*-animal interaction, i.e., both human-to-animal and animal-to-human, since our interaction with animals (even in the case of CACs) is never unidirectional. Therefore, instead of searching for the existence of the previously human-only capacities in non-human animals – and thus continuing to privilege humans by extending their humanity to other parts of nature – CACs research could be harnessed to challenge how all these traits or capacities are conceptualized in the first place. Recognizing our connection to nature and our affinity with animals should not necessitate a move that, by centering human beings, both

reinscribe anthropocentrism and, by weakening the significance of humanity, reinscribes coloniality. At this stage, we cannot (yet) offer a comprehensive and systematic strategy for such genuine anti-anthropocentric and anti-colonial CACs research. After reflecting on (the limitations of) our own work, we can only problematize specific techniques we inherited via a traditional linguistic education. These questionable methods include: (a) approaching the form and function of CACs with the human-language categories such as word, morpheme, clause/sentence/utterance, and argument structure; (b) splitting the analysis into language domains, e.g., pragmatics, semantics, phonetics, morphology and syntax; (c) focusing our fieldwork on interviewing human speakers and their language competence with the involvement of animals being much less significant and largely complementary; (d) limiting the study to the (extra-)linguistic performances of the speakers using CACs and thus minimizing the analysis of the (extra-)linguistic reactions of the animals addressed to. Our future research activities will reveal to what extent these pitfalls can be eliminated and how the alternative ways of conducting CAC research can be methodically designed and successfully implemented.

We are convinced that animals (and plants) deserve protection, care, and compassion. We do, however, think that as conscious scholars committed to social justice and decolonization, we are obliged to reflect on what our research and views potentially mean and their historical connections and philosophical implications. Therefore, a more socially just framing of environmental concerns should provide an alternative to the current mainstream environmentalism, which is colonial in essence (see compelling critical assessments by Hughey 2023 and Ergene, Banerjee & Ergene 2024). One of the possibilities is the development of a “climate justice agenda that is grounded on racial justice,” which would consist of three core elements: focusing on grassroots movements rather than “elites,” centering Indigenous practices

and the local adaptations of some technologies (or the refusals thereof), and contextualizing environmental solutions within the matrix of racial and other injustices (Ergene, Banerjee & Ergene 2024:786). Overall, our critique converges, to some extent, with the critique of posthumanism done by feminist race philosophers. As elegantly put by Jackson (2013:682), “a transformative theory and practice of humanity should not be mistaken for [...] an absolute break with humanism [...]. Rather, [...] the “post” marks a commitment to “work through” that which remains [...] humanist about [the] philosophy” of posthumanism and other ‘post’ movements.

To conclude, 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 the need to historicize the discourses into which we are interpellated as equally important. 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 that are contrary to what we believe in and with which we disagree passionately.

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References

- Abdulla, Alia Badr & Zahraa Nasir Talib. 2009. The meanings of interjections in English and Arabic. *Journal of the College of Arts University of Basrah* 50. 89-107.
- Aikhenvald, Alexandra. 2010. *Imperatives and commands*. Oxford: Oxford University Press.
- Ali, Syed Mustafa. 2017. Transhumanism and/as Whiteness. *Proceedings* 1, 244. 1-3.
- Ali, Syed Mustafa. 2019. White crisis” and/as “existential risk,” or the entangled apocalypticism of artificial intelligence. *Zygon: Journal of Religion and Science* 54(1). 207-224.
- Ali, Syed Mustafa. 2021. Transhumanism and/as Whiteness. In Wolfgang Hofkirchner & Hans-Jörg Kreowski (eds.), *Transhumanism: The proper guide to a posthuman condition or a dangerous idea?* 169-183. Cham: Springer.
- Ambrazas, Vytautas, Emma Geniušienė, Aleksas Girdenis, Nijolė Sližienė, Dalija Tekorienė, Adelė Valeckienė & Elena Valiulytė. 2006. *Lithuanian grammar*. Vilnius: Baltos Lankos.
- Ameka, Felix. 1992. The meaning of phatic and conative interjections. *Journal of Pragmatics* 18(2/3). 245-271.
- Amha, Azeb. 2013. Directives to humans and to domestic animals: The imperative and some interjections in Zargulla. In Marie-Claude Simeone-Senelle & Martine Vanhove (eds.), *Proceedings of the 5th International Conference on Cushitic and Omotic languages, Paris, 16-18 April 2008*, 211-229. Köln: Rüdiger Köppe.
- Andrason, Alexander. 2022. Conative animal calls in Xhosa: Testing the prototype. *Africana Linguistica* 28. 25-54.
- Andrason, Alexander. 2023. The non-arbitrariness of some conative calls used to chase animals. *Linguistica Silesiana* 44. 73-103.

- Andrason, Alexander. 2024. Conative “kisses” in human-to-animal communication. *Łódź Papers in Pragmatics* 20(1). 103-129.
- Andrason, Alexander & Pius Akumbu. 2024. Towards a linguistic analysis of conative animal calls in Babanki and Bum (Grassfields languages of Cameroon). *Kervan: International Journal of Afro-Asiatic Studies* 28(1). 3-28.
- Andrason, Alexander, Anna Luisa Daigneault, Maya Hendrix, Rebecca Pizzitola & Anusha Somu. 2024. *A living database of conative animal calls*. Salem: Living Tongues Institute for Endangered Languages. [Available at SSRN: <https://ssrn.com/abstract=4899510>]
- Andrason, Alexander & Gabriel Kwasi Gafatsi. Forthcoming. Typological, phylogenetic, and areal properties of conative animal calls in Ewe. *Yearbook of Oriental Studies*.
- Andrason, Alexander & Michael Karani. 2021. Conative calls to animals: From Arusa Maasai to a cross-linguistic prototype. *Lodz Papers in Pragmatics* 37(1). 3-40.
- Andrason, Alexander, Mulugeta Onsho & Shimelis Mazengia. 2024. Conative animal calls in Macha Oromo: Function and form. *Linguistic Vanguard*, aop. 1-9.
- Andrason, Alexander & Admire Phiri. 2023. Talking to animals in a moribund language: Pragmatics, phonetics, and morphology of conative animal calls in Tjwao. *Linguistic Variation* 23(2). 318-342.
- Andrason, Alexander & Idrissa Sagara. 2024. The grammar of conative animal calls: The case of Togo-Tenju Kan of Dourou (Dogon). *Asian and African Studies* 33(1). 48-96.
- Azarkh, Y.S. 1977. Подзывные слова для коров и лошадей в русских говорах [Call signs for cows and horses in Russian dialects]. In Ruben Ivanovič Avanesov (ed.), *Диалектологические исследования по русскому языку* [Dialectological Research on the Russian Language]. Moscow: Nauka, 226-247.

- Badmington, Neil. 2006. Posthumanism. In Simon Malpas & Paul Wake (eds), *The Routledge companion to critical theory*, 240-241. London: Routledge.
- Badmington, Neil. 2000. *Posthumanism*. Basingstoke: Palgrave,
- Baumeister, David. 2021. Black animality from Kant to Fanon. *Theory & Event* 24(4). 951-976.
- Baxi, Upendra. 2020. Toward posthuman human rights? In Mads Rosendahl Thomsen & Jacob Wamberg (eds.), *The Bloomsbury handbook of posthumanism*, 183-196. London: Bloomsbury.
- Bergen, Benjamin. 205. Embodiment. In Ewa Dabrowska & Dagmar Divjak (eds.), *Handbook of Cognitive Linguistics*, 10-30. Berlin: De Gruyter Mouton.
- Biko, Steve. 1978. *I write what I like*. Johannesburg: Picador Africa.
- Böhm, Steffen, Maria Ceci Misoczky & Sandra Moog. 2012. Greening capitalism? A Marxist critique of carbon markets. *Organization Studies* 33 (11). 1617-1638.
- Bolter, Jay. 2016. Posthumanism. In Klaus Bruhn Jensen & Robert Craig (eds.), *The international encyclopedia of communication theory and philosophy*, 1-8. Oxford: Wiley Blackwell.
- Bolton, Carrington. 1897. The language used in talking to domestic animals. *The American Anthropologist* 10. 65-90.
- Bonnett, Alastair. 1998. Who was white? The disappearance of non-European white identities and the formation of European racial whiteness. *Ethnic and Racial Studies* 21. 1029-1055.
- Bonnett, Alastair. 2000. Whiteness in crisis. *History Today* 50. 38-40.
- Bonnett, Alastair. 2005. From the crises of whiteness to western supremacy. *Australian Critical Race and Whiteness Studies Association Journal* 1. 8-20.
- Bonnett, Alastair. 2008a. Whiteness and the West. In Claire Dwyer & Caroline Bressey (eds.), *New geographies of race and racism*, 17-28. Aldershot: Ashgate.

- Bonnett, Alastair. 2008b. White studies revisited. *Ethnic and Racial Studies* 31(1). 185-196.
- Boonzaier, Floretta, Shose Kessi & Haile Matutu. Forthcoming. Decolonial feminism in Psychology: The Hub for Decolonial Feminist Psychologies in Africa – Emerging praxis from the South. In Deevia Bhana, Tamara Shefer & Giti Chandra (eds.), *Decolonial feminisms, decolonising feminisms: Transnational perspectives*. New York: Routledge.
- Bostrom, Nick. 2005. A history of transhumanist thought. *Journal of Evolution and Technology* 14(1). 1-25.
- Brandt, Keri. 2004. A language of their own: An interactionist approach to human-horse communication. *Society & Animals* 12(4). 299-316.
- Brandt, Keri. 2006. Intelligent bodies: Embodied subjectivity in human-horse communication. In Dennis Waskul & Phillip Vannini (eds.), *Body/embodiment. Symbolic interaction and the sociology of the body*, 141-152. New York: Routledge.
- Brito, Tarsis. 2024. Between race and animality: European borders, ‘colonial dogs’, and the policing of humanity. *Review of International Studies*. 1-18.
- Buck, Carl Darling. 1949. *A dictionary of selected synonyms in the principal Indo-European languages: A contribution to the history of ideas*. Chicago : University of Chicago Press.
- Burnham, Denis, Christine Kitamura & Uté Vollmer-Conna. 2002. What’s new, pussycat? On talking to babies and animals. *Science* 296(5572). 1434-1435.
- Bynon, James. 1976. Domestic animal calling in a Berber tribe. In William McCormack & Stephen Wurm (eds.), *Language and man: Anthropological issues*, 39-66. The Hague: Mouton.
- Canham, Hugo. (n.d.). In defence of the lowercase b. Retrieved November 19, 2024, from <https://hugokacanham.wordpress.com/author/hugokacanham/>

- Carrico, Dale. 2012. Is transhumanism racist? *Amor Mundi* blog. 21 December 2012.
<https://amormundi.blogspot.co.uk/2012/12/is-transhumanism-racist.html>
- Cavalieri, Paola. 2001. *The animal question. Why nonhuman animals deserve human rights.*
Oxford: Oxford University Press.
- Césaire, Aimé. 2000. *Discourse on Colonialism.* Translated by Joan Pinkham. New York: New York University Press.
- Chomsky, Noam. 2016. Minimal computation and the architecture of language. *Chinese Semiotic Studies* 12(1). 13-24.
- Cole, Desmond. 1955. *An introduction to Tswana grammar.* Cape Town: Longman Penguin Southern Africa.
- Cornips, Leonie. 2022. The animal turn in postcolonial linguistics: The interspecies greeting of the dairy cow. *Journal of Postcolonial Linguistics* 6. 209-231.
- Croft, William & Alan Cruse. 2004. *Cognitive linguistics.* Cambridge: Cambridge University Press.
- Daković, Sibilla. 2006. *Interiekcje w języku polskim, serbskim, chorwackim i rosyjskim. Opis i konfrontacja.* Wrocław: Wydawnictwo Uniwersytetu Wrocławskiego.
- Dabrowska, Ewa & Dagmar Divjak (eds.). 2015. *Handbook of Cognitive Linguistics.* Berlin: De Gruyter Mouton.
- Denisova T. & L. Sergeev. 2015. О некоторых особенностях верхового диалекта в говорах чувашской диаспоры Ульяновской области [On some dialectal features in the varieties spoken by the Chuvash diaspora of the Ulyanovsk region]. *Вестник ЧГПУ им. И. Я. Яковлева* 85(1). 32-37.
- Doke, Clement. 1954. *Text-book of Zulu grammar.* Cape Town: Longmans Green & Co.

- Duah, Reginald, Alexander Andrason & Mike Ofori Antwi. 2023. Phylogenetics of conative animal calls: Asante, Bono, and Fante. Talk at the Semantics Colloquium, Institute für Linguistik, Goethe Universität Frankfurt, 04.05.2023.
- Du Plessis, Jacobus A. 1978. *IsiXhosa 4*. Oudiovista: Goodwood.
- Dunaj, Bogusław (ed.). 1996. *Słownik współczesnego języka polskiego*. Warszawa: Wilga.
- Eichler, Lauren & David Baumeister. 2020. Predators and pests: Settler colonialism and the animalization of Native Americans. *Environmental Ethics* 42. 295-311.
- Eren, Hasan. 1952. Zurufe an Tiere bei den Türken. *Ural Altaische Jahrbücher* 23. 134-137.
- Ergene, Seray, Subhabrata Bobby Banerjee & Erim Ergene. 2024. Environmental racism and climate (in)justice in the Anthropocene: Addressing the silences and erasures in management and organization studies. *Journal of Business Ethics* 193. 785-800.
- Evans, Nicholas. 1992. 'Wanjh! Bonj! Nja!': Sequential organization and social deixis in Mayali interjections. *Journal of Pragmatics* 18. 225-244.
- Evans, Vyvyan & Melanie Green. 2006. *Cognitive linguistics: An introduction*. Edinburgh: Edinburgh University Press.
- Fanon, Frantz. 1967. *Black skin, white masks*. New York: Grove Press.
- Fanon, Frantz. 1963. *The wretched of the Earth*. New York: Grove Press.
- Feldman, Harry. 1986. *A grammar of Awtuw*. Canberra: Australian National University.
- Ferrando, Francesca. 2013. Posthumanism, transhumanism, antihumanism, metahumanism, and new materialisms: Differences and relations. *Existenz* 8(2). 26-32.
- Ferrando, Francesca. 2019. *Philosophical posthumanism*. London: Bloomsbury.
- Fleck, David. 2003. *A grammar of Matses*. Houston: Rice University dissertation.
- Garner, Steve. 2007. *Whiteness: An introduction*. London: Routledge.

- Geeraerts, Dirk & Hubert Cuyckens (eds.). 2007. *The Oxford handbook of cognitive linguistics*, Oxford: Oxford University Press.
- Germanovič, Aleksandr J. 1954. Слова клича и отгона животных в русском языке. *Известия Крымского Педагогического Института* 19, 306-320.
- Grochowski, Maciej. 1988. Wprowadzenie do analizy syntaktycznej wykrzykników. *Polonica* 13. 85-100.
- Grosfoguel, Ramon. 2006. World-systems analysis in the context of transmodernity, border thinking, and global coloniality. *Review (Fernand Braudel Center)*, 167-187.
- Guma, Samson Mbizo. 1971. *An outline structure of Southern Sotho*. Pietermaritzburg: Shuter & Shooter.
- Harjunpää, Katariina. 2022. Repetition and prosodic matching in responding to pets' vocalizations. *Langage et société* 176. 69-102.
- Hegel, Georg Wilhelm Friedrich. 1975. *Lectures on the philosophy of world history. Introduction*. Cambridge: Cambridge University Press.
- Heine, Bernd. 2023. *The grammar of interactives*. Oxford: Oxford University Press.
- Herbrechter, Stefan, Ivan Callus, Manuela Rossini, Marija Grech, Megen de Bruin-Molé & Christopher John Müller. 2022. Critical posthumanism: An overview. In Stefan Herbrechter, Ivan Callus, Manuela Rossini, Marija Grech, Megen de Bruin-Molé & Christopher John Müller (eds.), 3-25. *Palgrave handbook of critical posthumanism*. Cham: Palgrave Macmillan.
- Herbrechter, Stefan. 2013. *Posthumanism A critical analysis*. London: Bloomsbury.
- Herbrechter, Stefan. 2021. Before humanity, or, posthumanism between ancestrality and becoming inhuman. In Sonia Baelo-Allué & Mónica Calvo-Pascual (eds.), *Transhumanism and*

- posthumanism in twenty-first century narrative: Perspectives on the non-human in literature and culture*, 20-32). New York: Routledge.
- Herbrechter, Stefan. 2023. Unlearning to be human? The pedagogical implications of twenty-first-century post-anthropocentrism. In Christine Daigle & Matt Hayler (eds.), *Posthumanism in practice*, 212-226. London: Bloomsbury.
- Hewitt, George. 1995. *Georgian: A structural reference grammar*. Amsterdam: Benjamins.
- Hofkirchner, Wolfgang and Hans-Jörg Kreowski (eds). 2021. *Transhumanism. The proper guide to a posthuman condition or a dangerous idea?* Cham: Springer.
- Hughes, James. 2012. The politics of transhumanism and the techno-millennial imagination, 1626-2030. *Zygon* 47(4). 757-776.
- Hughes, James. 2017 What do technoproggressives believe? *IEET Survey*. <http://ieet.org/index.php/IEET/more/hughes20170218>
- Hughey, Matthew W. 2023. “Black people don’t love nature”: white environmentalist imaginations of cause, calling, and capacity. *Theory and Society* 52(5). 831-863.
- Ivanov, Vladimir Andreevič. 2014. Подзывные слова для животных в финно-угорских и русских диалектах и их связь с названиями животных [Call words for animals in Finno-Ugric and Russian dialects and their connection with animal names]. *Актуальные проблемы диалектологии языков народов России: Материалы XIV Всероссийской научной конференции* [Current problems of dialectology of the languages of the peoples of Russia: Proceedings of the XIV All-Russian Scientific Conference], 47-52. Ufa: Institute of History, Language and Literature, Federal Research Center of the Russian Academy of Sciences.

- Ivanov, Vladimir Andreevič. 2016. О двух периферийных лексических группах в горномарийском языке [On two peripheral lexical groups in Hill Mari]. *Финно-угорский мир* [Finno-Ugric World]. 4. 13-23.
- Jääskeläinen, Anni. 2021. Eläinten omat sanat: Eläimille suunnatut interjektiot ihmisen ja eläimen vuorovaikutuksen osina. In Rea Peltola, Anni Jääskeläinen & Katariina Harjunpää (eds.), *Kieli ja eläin. Vuorovaikutusta ja kielioppia monilajisissa yhteisöissä*, 133-184. Helsinki: Suomalaisen Kirjallisuuden Seura.
- Jackson, Zakiyyah Iman. 2013. Animal: New directions in the theorization of race and posthumanism. *Feminist Studies* 39(3). 669-685.
- Janda, Laura. 2015. Cognitive linguistics in the year 2015. *Cognitive Semantics* 1. 131-154.
- Jarring, Gotthard. 1941. Zurufe an Tiere bei den Osttürken. In Gotthard Jäschke (ed.), *Festschrift Friedrich Giese aus Anlass des siebzigsten Geburtstags*, 46-52. Berlin: Deutsche Gesellschaft für Islamkunde.
- Kandakova, Elena Nikolaevna. 2003. Подзывные слова как особая функционально-грамматическая группа (На примере ярославских говоров). [Call words as a special functional-grammatical group (On the example of Yaroslavl dialects)] PhD dissertation. Jaroslavskij Gosudarstvennyj Pedagogičeskij Universitet.
- Kołakowski, Leszek. 2009. *Główne nurty marksizmu*. Vol. 1-3. Warszawa: PWN.
- Kwok, Sinead. 2020. The human-animal divide in communication: anthropocentric, posthuman and integrationist answers. *Language & Communication* 74. 61-73.
- Langacker, Ronald W. 1987. *Foundations of Cognitive Grammar. Vol. I. Theoretical prerequisites*. Stanford: Stanford University Press.

- Langacker, Ronald W. 1991. *Foundations of Cognitive Grammar. Vol. II. Descriptive application*. Stanford: Stanford University Press.
- Lewandowska-Tomaszczyk, Barbara. 2007. Polysemy, prototypes, and radial categories. In Dirk Geeraerts & Hubert Cuyckens (eds.), *The Oxford handbook of cognitive linguistics*, 139-169. Oxford: Oxford University Press.
- Lim, Bryan. 2023. Posthumanism and the limits of multispecies relationality. In Christine Daigle & Matt Hayler (eds.), *Posthumanism in practice*, 43-56. London: Bloomsbury.
- Logue, David & Tania Stivers. 2012. Squawk in interaction: a primer of conversation analysis for students of animal communication. *Behaviour* 149. 1283-1298.
- Lohi, Hannes & Mika Simonen. 2021. Hugging and kissing a dog in distress. *Litteraria Copernicana* 37(1). 107-122.
- Maldonado-Torres, Nelson. 2016. Outline of Ten Theses on Coloniality and Decoloniality. Frantz Fanon Foundation. Available at: <https://fondation-frantzfanon.com/outline-of-ten-theses-on-coloniality-and-decoloniality/>. (Accessed on 15 January 2022.)
- Mama, Amina. 1995. *Beyond the masks: Race, gender and subjectivity*. London: Routledge.
- Mbembe, Achille. 2001. *On the postcolony*. Berkeley: University of California Press.
- Meinard, Maruszka. 2015. Distinguishing onomatopoeias from interjections. *Journal of Pragmatics* 76. 150-168.
- Miah, Andy. 2008. A critical history of posthumanism. In Bert Gordijn & Ruth Chadwick (eds.), *Medical enhancement and posthumanity*, 71-94. Cham: Springer.
- Mitchell, Robert. 2001. Americans' talk to dogs: Similarities and differences with talk to infants. *Research on Language and Social Interaction* 34(2). 183-210.

- Mondémé, Chloé. 2018. How do we talk to animals? Modes and pragmatic effects of communication with pets. *Langage et société* 163(1). 77-99.
- Mondémé, Chloé. 2019. *La socialité interspécifique. Une analyse multimodale des interactions homme-chien*. Limoges: Lambert-Lucas.
- Mondémé, Chloé. 2020. Touching and petting. Exploring "haptic sociality" in interspecies interaction. In Asta Cekaite & Lorenza Mondada (eds.), *Touch in social interaction: Touch, language and body*, 171-196. New York: Routledge.
- Mondémé, Chloé. 2023. Interspecies Haptic Sociality: the Interactional Constitution of the Horse's Esthesiologic Body in Equestrian Activities. *Human Studies* 46. 701-721.
- More, Max. 2013. The philosophy of transhumanism. In Max More & Natasha Vita-More (eds.) *The transhumanist reader: Classical and contemporary essays on the science, technology, and philosophy of the human future*, 3-17. New York: Wiley.
- More, Max. 1990. Transhumanism: Toward a futurist philosophy. *Extropy* 6. 6-12.
- More, Max. 2009. H+: True transhumanism. <https://metanexus.net/h-true-transhumanism/>
- Mylius, Ben. 2018. Three types of anthropocentrism. *Environmental Philosophy* 15(2). 159-194.
- Nayar, Pramod. 2014. *Posthumanism*. Cambridge: Polity.
- Noske, Barbara. 1997. *Beyond boundaries: Humans and animals*. Montreal: Black Rose Books.
- Orkaydo, Ongaye Oda. 2013. *A grammar of Konso*. Utrecht: Lot.
- Pablé, Adrian. 2016. Global semiotics vs. human semiology. *Chinese Semiotic Studies* 12(1). 25-43.
- Pahl, Herbert (ed.). 1989. *The greater dictionary of isiXhosa*. Vol. 3. Fort Hare: University of Fort Hare.

- Papagni, Guglielmo. 2021. Transhumanism and philosophy of technology. In Wolfgang Hofkirchner and Hans-Jörg Kreowski (eds.), *Transhumanism: The proper guide to a posthuman condition or a dangerous idea?*, 49-64 Cham: Springer Nature.
- Pellissier, Hank. 2013. Transhumanists: who are they, what do they want, believe and predict? *Journal Personal Cyberconsciousness* 8(1). 20-29.
- Pika, Simone, Ray Wilkinson, Kobin Kendrick & Sonja Vernes. 2018. Taking turns: bridging the gap between human and animal communication. *Proceedings of the Royal Society B: Biological Sciences* 285(1880). 20180598.
- Plec, Emily. 2013a. Perspectives on human-animal communication: An introduction. In Emily Plec (ed.), *Perspectives on human-animal communication: Internatural communication*, 1-13. New York: Routledge.
- Plec, Emily (ed.). 2013b. *Perspectives on human-animal communication: Internatural communication*. New York: Routledge.
- Poyatos, Fernando. 1993. *Paralanguage: A linguistic and interdisciplinary approach to interactive speech and sounds*. Amsterdam: John Benjamins.
- Poyatos, Fernando. 2002. *Nonverbal communication across disciplines. Volume II: Paralanguage, kinesics, silence, personal and environmental interaction*. Amsterdam: John Benjamins.
- Ranisch, Robert & Stefan Lorenz Sorgner. 2014. Introducing post- and transhumanism. In Ranisch, Robert & Stefan Lorenz Sorgner (eds.), *Post- and transhumanism: An introduction*, 7-27. Frankfurt am Main: Peter Lang.
- Renisio. Amédée. 1932 *Étude sur les dialectes berbères des Beni Iznassen, du Rif et des Senhaja de Srair*. Paris: Leroux.

- Roberts, Felicia. 2004. Speaking to and for animals in a veterinary clinic: A practice for managing interpersonal interaction. *Research on Language and Social Interaction* 37(4). 421-446.
- Russel, Bertrand. 2004 [1946]. *History of Western philosophy*. London: Routledge.
- Schötz, Susanne. 2012. A phonetic pilot study of vocalisations in three cats. *Proceedings from Fonetik 2012*. 45-48.
- Schötz, Susanne. 2014. A pilot study of human perception of emotions from domestic cat vocalisations. *Proceedings from Fonetik 2014*. 95-100.
- Schötz, Susanne. 2020. Phonetic variation in cat-human communication. In Ramiro Pastorinho & Ana Catarina Sousa (eds.), *Pets as sentinels, forecasters and promoters of human health*, 319-347. Cham: Springer Nature.
- Schulthess, Friedrich. 1912. *Zurufe an Tiere im Arabischen*. Berlin: Abhandlungen der Akademie der Wissenschaften.
- Schwentner, Ernst. 1924. *Die primären Interjektionen in den indogermanischen Sprachen mit besonderer Berücksichtigung des Griechischen, Lateinischen und Germanischen*. Heidelberg: Carl Winter's Universitätsbuchhandlung.
- Siatkowska, Ewa. 1976. *Zachodniosłowiańskie zawołania na zwierzęta: stan obecny, funkcje historyczne, stosunek do systemu językowego*. Warszawa: Wydawnictwa Uniwersytetu Warszawskiego.
- Simonen, Mika & Hannes Lohi. 2021. Interactional reciprocity in human-dog interaction. In Jan Lindström, Ritva Laury, Anssi Peräkylä & Marja-Leena Sorjonen. (eds.), *Intersubjectivity in action: Studies in language and social interaction*, 397-428. Amsterdam: John Benjamins.

- Soukka, Maria. 1999. *A descriptive grammar of Noon, a Cangin language of Senegal*. London: University of London dissertation.
- Steiner, Gary. 2005. *Anthropocentrism and its discontents*. Pittsburgh: The University of Pittsburgh Press.
- Szczepek Reed, Beatrice. 2023. Designing talk for humans and horses: Prosody as a resource for parallel recipient design. *Research on Language and Social Interaction* 56:2. 89-115.
- Tatarkiewicz, Władysław. 2005 [1931; 1950]. *Historia Filozofii. Tom 1-3*. Warszawa: PWN.
- Taylor, John R. 2015. Prototype effects in grammar. In Ewa Dabrowska & Dagmar Divjak (eds.), *Handbook of Cognitive Linguistics*, 562-578. Berlin: De Gruyter Mouton.
- Taylor, Gary. 2005. *Buying Whiteness: Race, culture, and identity from Columbus to hip hop*. London: Palgrave.
- Taylor, Carol & Annouchka Bayley (ed.). 2019. *Posthumanism and higher education: Reimagining pedagogy, practice and research*. Cham: Palgrave Macmillan.
- ten Have, Henk & Maria do Céu Patrão Neve. 2021. *Dictionary of global bioethics*. Cham: Springer Nature.
- Thomsen, Mads Rosendahl & Jacob Wamberg. 2020. Introduction. In Mads Rosendahl Thomsen & Jacob Wamberg (eds.), *The Bloomsbury handbook of posthumanism*, 1-12. London: Bloomsbury.
- Tishina Y.V. & T. V. Mandzhieva. 2024. Слова клича и отгона животных в русских говорах: этимологический аспект [Words of calls and pasturing of animals in Russian dialects: Etymological aspect]. *Russian Linguistic Bulletin* 51(3). 1-4.
- Treis, Yvonne. 2023. Interjections in Kambaata. 25. Talk at the Afrikanist*innentag 2023, “Im/materielles Erbe neu kalibriert”, Leipzig, 4-6 May 2023.

- Turner, Dennis. 2021. The mechanisms of social interactions between cats and their owners. *Frontiers in Veterinary Science* 8. 650143.
- Umbrello, Steven. 2018. Posthumanism: A fickle philosophy? *Con Texte* 2. 28-32.
- van den Berg, René 1989. *A Grammar of the Muna language*. Dordrecht: Foris Publications.
- Van Eeden, Bernardus. 1956. *Zoeloe grammatika*. Stellenbosch: Die Universiteitsuitgewers en Boekenhandelaars.
- Wierzbicka, Anna. 2003. *Cross-cultural Pragmatics: The semantics of human interaction*. Berlin: De Gruyter.
- Wilkins, David. 1992. Interjections as deictics. *Journal of Pragmatics* 18. 119-158.
- Wolfe, Cary. 2010. *What is posthumanism?* Minneapolis: University of Minnesota Press.
- Zimmerman, Michael. 2008. The singularity: A crucial phase in divine self-actualization? *Cosmos and History: The Journal of Natural and Social Philosophy* 4(1). 347-370.