The Philosophical Debate on Linguistic Bias: A Critical Perspective

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Abstract

Drawing on empirical findings, a number of philosophers have recently argued that people who use English as a foreign language may face a *linguistic bias* in academia in that they or their contributions may be perceived more negatively than warranted because of their English. I take a critical look at this argument. I first distinguish different phenomena that may be conceptualized as linguistic bias but that should be kept separate to avoid overgeneralizations. I then examine a range of empirical studies that philosophers have cited to argue that people who use English as a foreign language are subject to linguistic bias in academia. I contend that many of these studies do not sufficiently support key claims that philosophers have made about linguistic bias, are challenged by counterevidence, and lack generalizability. I end by introducing methodological recommendations that may help philosophers develop more convincing empirically informed arguments regarding linguistic bias.

Keywords: linguistic bias, linguistic injustice, LX English

1. Introduction

In academia, English has long been the shared language that people with different mother tongues use to communicate with each other (Bennett, 2014). As a lingua franca, English facilitates international communication, thus producing extensive benefits for research (Ozdemir, 2014).

However, the dominance of English in academia may also create linguistic injustice, i.e., unjust inequalities or unfair treatment based on language features. For instance, academics who acquired English as their first language (henceforth 'L1 English users') may have higher English proficiency and may therefore need much less effort to contribute to international communications (journals, etc.) than academics who use English as their second (third, fourth, etc.) language (henceforth 'LX English users'). Due to language difficulties, LX English users may have fewer publications (Yen & Hung, 2019), resulting in reduced academic influence compared to L1 English users, even if they have equal or higher disciplinary expertise (Amano et al., 2023).

These negative effects may be exacerbated by psychological factors. Specifically, several researchers have argued that LX English users in academia may become targets of "linguistic bias", referring to people's tendency to view someone or their contribution(s) more negatively (as less competent, intelligent, intelligible, credible, etc.) because of their actual or expected

'non-standard'[1] (LX, accented, etc.) language use (Ayala, 2015; Erlenbusch, 2018; Politzer-Ahles et al., 2020; Catala, 2021). However, no systematic analysis of the notion of linguistic bias exists yet. Moreover, while philosophers who discuss linguistic injustice often mention empirical studies to argue that LX English users are subject to linguistic bias, available philosophical contributions on this topic offer little critical reflection on these studies and do not mention potential counterevidence. The goal here is to address these shortcomings.

I will first distinguish and classify different phenomena that may be subsumed under the concept of linguistic bias but should be kept separate to prevent overgeneralizations about this bias and to be able to ask more specific research questions regarding the bias. I will then examine empirical studies that philosophers have cited to maintain that LX English users or their contributions are subject to linguistic bias in society and academia. I argue that many of these studies do not sufficiently support several key claims about linguistic bias that philosophers have made, are contradicted by other research, and lack generalizability. I end by introducing methodological recommendations to help philosophers develop better empirically informed arguments about linguistic bias.

To clarify, despite my critical approach to linguistic bias research, I am a LX English user myself and support attempts to achieve linguistic justice. My point is that unless we adopt a more critical, balanced view of findings on linguistic bias, we may be less likely to convince policy-makers of the need for change because we will remain vulnerable to charges of cherry picking the data. Also, I do not deny that linguistic bias (e.g., accent bias) and linguistic profiling (i.e., stereotyping individuals based on their language) are real and harmful (Baugh, 2017). The focus here is only on whether the claims that philosophers have made about linguistic bias are empirically well supported. Finally, L1 English and LX English are not internally consistent, homogenous language systems. There may be significant variations within these systems, between domains, or within and between countries. There may also be significant overlaps in language proficiency between L1 and LX users (Vulchanova et al., 2021). The use of the L1/LX distinction here is thus not meant to suggest any essentialization of social groups.

2. Conceptual distinctions between different types of linguistic bias

Searching the literature across disciplines, it emerges that the term 'linguistic bias' is employed in different ways (Maas, 1999; Beukeboom & Burgers, 2017; Politzer-Ahles et al., 2020).[2] It will therefore be useful to begin by laying out some key phenomena that the concept may cover before honing in on the here most relevant ones. Some distinctions that I shall draw have not been mentioned in the literature yet. This section thus aims to do foundational work to provide philosophers with terminology to better navigate the debate on linguistic bias and help avoid conceptual confusions and overly broad generalizations of empirical data. The distinctions below are meant to apply to linguistic bias related to (L1, LX) English users and may need adjustments if other languages are considered.

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[1] The notions of standard and non-standard English are common but may in some cases be hard to demarcate and be indicative of a bias toward an abstract, idealized homogeneous language (Lippi-Green, 2012). I shall therefore put the terms in quotes.
[2] Some psychologists define "linguistic bias" as a "systematic asymmetry in word choice that reflects the social-category cognitions that are applied to the described group or individual(s)" (Beukeboom & Burgers, 2017, p. 1). This is distinct from the tendency to view people or contributions more negatively whose language one perceives as 'non-standard' (LX, etc.).

The focus will be on linguistic bias construed as the unconscious or conscious tendency to view people or contributions whose language one perceives as 'non-standard' (non-regional, LX, etc.) more negatively because of their linguistic features when this should be irrelevant to one's judgments and decisions. Negative responding to language that one perceives as 'non-standard' is not always a bias. One might disfavor some individual or contribution when one finds that their regional or LX language use is not understandable. This would not necessarily be a bias (e.g., disfavouring a strongly accented speaker in emergency call-center hiring where understandability is vital may be justifiable; Yuracko, 2006). However, one might also disfavour someone or some contribution based on their 'non-standard' language even when one fully understands them. For instance, when understandable speech leads one to rate the speaker as less credible because the speech is accented, this would be linguistic bias as defined here because accent and credibility are unrelated (Lev-Ari & Keysar, 2010).

Linguistic bias might affect one's processing of one's mother tongue or of foreign languages (e.g., when an L1 US-English speaker hears someone speak Spanish; Torres, 2019). To mark this difference, I call the former *within-language bias*, and the latter *between-language bias*. The focus will be on within-language bias since it is more widely covered in the here relevant research. This bias can be further divided into what I call *L1 variation bias* and *LX variation bias*. L1 variation bias targets 'non-standard' mother tongue uses: A White American L1 English speaker might be biased against African-American L1 English (Baugh, 2017). Or a Briton who speaks Received Pronunciation English ('Queen's English') might disfavor Southern England working-class English (Levon et al., 2021). In contrast, LX variation bias targets LX expressions: L1 Chinese speakers who use English may differ in their English pronunciation from British English pronunciation, potentially triggering linguistic bias in British listeners. The distinction between L1 and LX variation bias may not always be easy to draw, as it is not always clear what are different languages versus what are different varieties of the same language. However, a recent meta-analysis of comparative studies found that while differences in "regional" accent (e.g., US- versus UK-accented English) did not activate prejudice, differences in "foreign" accent (e.g., US- versus Chinese-accented English) did do so (Spence et al., 2023). This suggests that L1 and LX variation biases can come apart and that the conceptual distinction between them is warranted.[3]

Since recent philosophical contributions on linguistic bias focus on LX variation bias against LX English users (e.g., Ayala, 2015; Contesi & Terrone, 2018; Erlenbusch, 2018; Catala, 2021), the remaining conceptual distinctions will only be illustrated with respect to this particular bias. LX variation bias can be divided into *speech bias* and *text bias*. *Speech bias* falls into *accent bias*, which targets pronunciation (e.g., Spanish- vs. British-accented English), and what I call *word-phrase choice bias*, which may target lexical, syntactical, semantic, or idiomatic variations. For instance, LX English users may express phrases in English that are borrowed from their mother tongue, or use 'false friends' (words that look or sound similar to words of one's L1 but differ in meaning across languages, e.g., German 'bekommen' versus English 'become'). When the detection of such expressions triggers unduly negative responding, this would be word-phrase choice bias.

Word-phrase choice bias may target language use even when there is only text. This would be *text bias*, which is currently the primary referent of 'linguistic bias' in applied linguistics (Politzer-Ahles et al., 2020). Since texts do not involve pronunciation, text bias consists only of

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[3] More generally, blurry boundaries between phenomena do not necessarily undermine conceptual distinctions between them. The line between being bald and being hairy is blurry too. But this is usually not taken to show that the distinction between being bald and being hairy is untenable.

a word-phrase choice bias. For instance, there are lexical or grammatical characteristics that often distinguish LX from L1 English texts (Hinkel, 2002), including 'non-native' collocations that tend to be swiftly detected by many competent L1 English users (Newmark, 1995). When this leads the reader to unwarranted negative judgments about the writer or contribution then that would be a word-phrase choice bias.

Depending on their source, word-phrase choice biases and accent biases can be further divided into two different types: (1) linguistic *stereotype bias*, which occurs when an accent or lexical choice signals social identity and activates a recipient's prejudice that then reduces their credibility ratings of the source (de Souza et al., 2016), and (2) linguistic *disfluency bias* (Dragojevic et al., 2017). This refers to cases in which detecting an LX accent, lexical choice, etc. leads a recipient to biased conclusions because unfamiliar speech is harder to process fluently, producing negative affect that then influences cognition (e.g., listeners might judge a well understandable accented speaker as less intelligent because the accent interrupts their processing; Boduch-Grabka & Lev-Ari, 2021). The same might happen when a peculiar LX textual expressions violates an L1 English reader's expectations of 'native' language (Peters, forthcoming). Bias against LX users can therefore stem from basic perceptual difficulty independent of social stereotypes (Dragojevic et al., 2017).

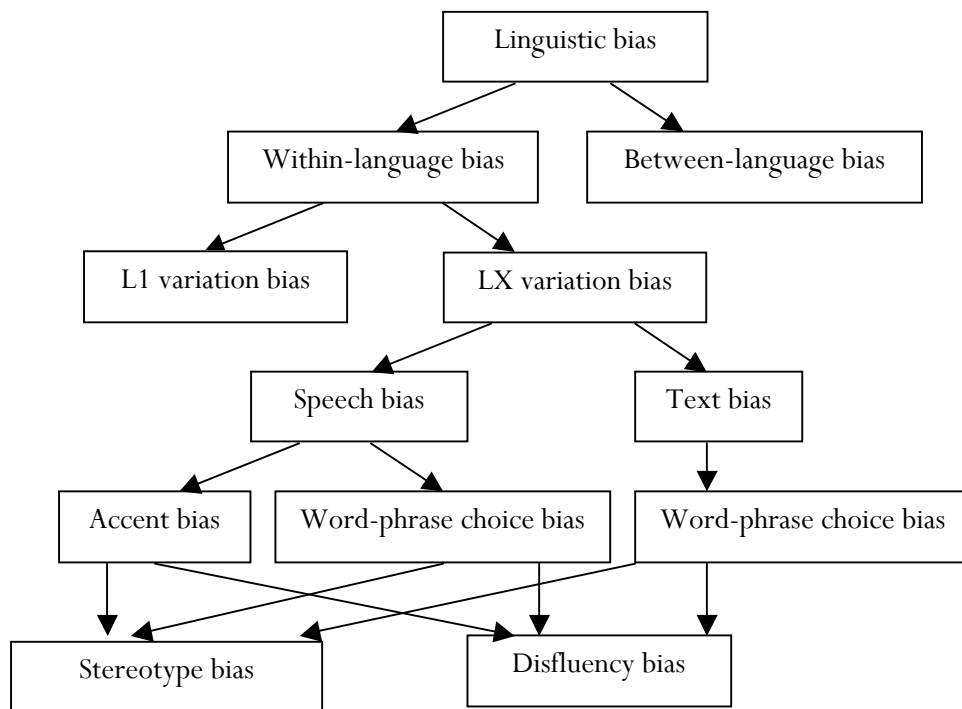Summing up, Figure 1 shows all the distinctions I have just drawn:

Figure 1. Variants of linguistic bias; the arrows indicate the form(s) that a bias variant may take.

One might start with different top-level divisions, and the distinctions in Figure 1 are not meant to be exhaustive. The figure is simply meant to summarize the phenomena I just distinguished and retrace how they were distinguished. The key motivation for distinguishing these variants of linguistic bias is that this may help avoid overgeneralizations: the claim 'linguistic bias is common in academia' may more accurately apply to LX accent bias than to L1

variation bias. The distinctions also allow formulating more specific research questions, as we can now ask, for example, whether accent stereotype bias is more harmful than text disfluency bias. In the following, I will focus on *LX English speech and text biases*, i.e., on individuals' (potential) tendency to view or treat LX English users or their contributions more negatively because of their LX expressions when this should be irrelevant. This bias, which is henceforth the sole referent of 'linguistic bias', has been a key topic in philosophical work on linguistic injustice.

3. Recent philosophical claims about linguistic bias

When discussing linguistic injustice, several philosophers have recently made broad claims about linguistic bias in society and academia. Here are representative quotes:

(1) "A large body of research in psychology shows" that: "Non-native speakers are generally perceived as less credible and skilled […], as having lower status […], as being less intelligent […]), and as being less competent […]." (Ayala, 2015, p. 3)

(2) "Empirical research shows that foreign accents are generally regarded as indicative of a lack of competence and intelligence." (Erlenbusch, 2018, p. 311)

(3) "[P]eople with non-native accents tend to be considered as less competent, intelligent, loyal and of lower status" because of "prejudices and biases concerning an imperfect mastery of the language and a non-standard accent." (Chiesa & Galeotti, 2018, p. 167-168, 169)

(4) "[T]he claim is that despite their philosophical competence and sincerity, ["non-native English users"] are exposed to undue credibility or intelligibility deficits in [analytic philosophy] because of biases that interfere with credibility or intelligibility allocations. […] [There are] numerous studies that provide overwhelming evidence of the pervasiveness of accent bias." (Catala, 2021, pp. 8, 9)

The 'native' versus 'non-native' distinction used by philosophers in these quotes is not without problems. Studies found significant individual variations and overlaps in linguistic competence between 'native' and 'non-native' speakers, suggesting that the groups cannot always be easily demarcated (Vulchanova et al., 2022). For instance, many native speakers who had moved to a foreign country were found to undergo "language attrition", gradually losing their native language competence because they ceased to be exposed to the language, which can lead to 'native' speakers being confused with 'non-native' speakers (Schmid & Köpke, 2017). The term 'native' also comes with normative assumptions of a speaker being 'highly proficient', 'normal', or 'authentic', which can reinforce deficit perspectives toward 'non-native' language users and result in unjust social exclusions of them from language teaching positions. The terms 'L1 user' and 'LX user' may be preferable, as they are less normatively loaded ('native'/'non-native speaker' have positive and negative connotations, respectively), do not invoke the notion of being born ('native') into a language with linguistic superiority, and do not imply that full proficiency in the language is inevitable for first language speakers, or unattainable for second language speakers (which accommodates cases of high proficiency reaching 'native' level) (Dewaele et al., 2022).

Setting these points aside, the focus here will be on the argument that is commonly built on claims such as (1)-(4). Specifically, the philosophers making these claims maintain that LX English users in Anglophone societies are (among other kinds of potential linguistic injustice) affected by linguistic biases *in academia*, including philosophy. Their argument takes the following form (Ayala, 2015, pp. 4-5; Contesi & Terrone, 2018, p. 6; Catala, 2021, p. 9):

(a) LX English users are generally subject to linguistic bias in society.
(b) If LX English users are generally subject to linguistic bias in society, they are also generally subject to it in academia, including philosophy.
(c) So, LX English users are generally subject to linguistic bias in academia, including philosophy.

To move from (a) to (b), advocates of this argument hold that "philosophical practice is not free of the biggest evils of our society. Different kinds of discrimination abound in our departments, mostly unrecognized and often difficult to pin down. Thus, it seems we have good reasons to expect prejudiced perception of non-native speakers to be also present in the philosophical practice" in academia (Ayala, 2015, p. 5). The claim is that "there is no reason to believe that philosophers" are "less prone to accent bias than others in the general population, of which, after all, philosophers are also a part" (Catala, 2021, p. 9).

However, this overlooks that the (LX/L1) English used in society at large differs from (LX/L1) academic English, which is more cognitively demanding, involving more formality and complexity (MacSwan, 2020). Since "academic language needs to be learned and developed out of disciplinary studies with targeted instruction for all novice [users], regardless of their native or non-native speaker status", the 'standardization' of academic English may mitigate L1 and LX performance/usage differences, leaving less room for linguistic bias against 'non-standard' English to operate (Zhao, 2017, p. 47). Moreover, social norms in academia may more strongly restrict bias against LX English than the norms outside academia because people working within academia are more frequently interacting with (including dependent on) LX English users (colleagues, professors, etc.) than people outside academia, which may make academic 'insiders' less linguistically biased than academic 'outsiders' due to exposure effects (Boduch-Grabka & Lev-Ari, 2021). Hence, the inference that "if linguistic bias and discrimination affect society as a whole, there is reason to believe they will affect academic analytic philosophy, too" (Contesi & Terrone, 2018, p. 6) needs further support, preferably, direct empirical evidence.

Philosophers who advocate argument (a)-(c) have so far only cited evidence for premise (a). I will therefore also only concentrate on (a). Focusing on (a), there are weaker (more easily defensible) and stronger versions of argument (a)-(c) because instead of maintaining that LX English users are *generally* subject to linguistic bias in society, one may hold that they (1) *can be*, (2) are *sometimes*, (3) are *often*, (4) are *most of the time*, or (5) are *always* subject to it. Philosophers who have written on linguistic bias are not always explicit on which claim they endorse. But the quotes above suggest that the version of (a)-(c) that I presented is common. So, what empirical support have philosophers offered for the claim that LX English users are generally subject to linguistic bias in society?

4. Psychological studies on linguistic bias

The focus will be on the studies that philosophers have recently referenced in their contributions on linguistic justice. To avoid selection bias in the review of these studies, I adopted a systematic methodology:

(1) Search the Philpapers database (the largest free online depository for philosophy papers) and Google Scholar for peer-reviewed philosophical journal articles on linguistic injustice published between 2012 and 2022 using combinations of the terms

'linguistic justice' ('injustice'), 'linguistic bias', 'accent bias', 'language bias', 'philosophy', and 'philosophical'.

(2) Exclude papers that do not mention empirical studies on linguistic bias against LX English users.

(3) From the remaining papers, extract the studies specifically on linguistic bias.

(4) Review these studies to determine whether they support the claims that philosophers have made based on them.

I conducted the literature search in January 2022. While I found 21 papers on the topic of linguistic justice, the focus on articles that also mentioned empirical data on linguistic bias, in particular, reduced this to six papers that matched the specified criteria: Ayala (2015), Erlenbusch (2018), Contesi and Terrone (2018), Chiesa and Galeotti (2018), and Catala (2021). Across these six papers, in sections on linguistic bias, 27 empirical studies on linguistic bias were cited. They are shown in Table 1:

1. Giles (1970)	15. Yuracko (2006)
2. Giles (1973)	16. Zhao et al. (2006)
3. Ryan and Carranza (1977)	17. Frumkin (2007)
4. Bradac and Wisegarver (1984)	18. Kang and Rubin (2009)
5. Brown et al. (1985)	19. Lev-Ari and Keysar (2010)
6. Bradac (1990)	20. McGlone et al. (2010)
7. Rubin and Smith (1990)	21. Gluszek and Dovidio (2010)
8. Rubin (1992)	22. Fuertes et al. (2012)
9. Davila et al. (1993)	23. Lippi-Green (2012)
10. Nesdale and Rooney (1996)	24. Pantos and Perkins (2012)
11. Lindemann (2002)	25. Moyer (2013)
12. Lindemann (2003)	26. Huang et al. (2013)
13. Baugh (2003)	27. Baugh (2017)
14. Boyd (2003)	

Table 1. Publications on linguistic bias cited by philosophers

An initial skim reading of these publications revealed that the publications focus primarily on accent. The following discussion will thus also focus primarily on accent bias. However, towards the end (section 5), I will also consider empirical research on text bias that philosophers may mention.

Before full-text analysis, I made two methodological decisions to make the project feasible. First, after skim reading the 27 publications, I found that 7 (Baugh, 2003, 2017; Yuracko, 2006; McGlone et al., 2010; Gluszek & Dovidio, 2010; Lippi-Green, 2012; Moyer, 2013) are not primary studies or meta-analyses but narrative reviews. Narrative literature reviews can be helpful in providing a general overview of an area. But they may also be affected by selection bias, as they do not follow pre-specified criteria to ensure a balanced survey but are commonly organized by a guiding theory or point of view (Pae, 2015). They also generally do not indicate how the decisions were made about the relevance of the included studies and their validity (Collins & Fauser, 2005). Given the space constraints, I therefore decided to focus only on primary studies and meta-analyses. Even if only these studies from Table 1 fail to support the claims that philosophers have made on their basis, this would already help correct aspects of the philosophical debate on linguistic bias. Focusing on the primary studies, one of them, Zhao et

al. (2006), is a study about race-based housing discrimination in the US and does not mention linguistic bias. I therefore excluded it. 19 publications were left (Table 2).

1. Giles (1970)	11. Lindemann (2002)
2. Giles (1973)	12. Lindemann (2003)
3. Ryan and Carranza (1977)	13. Boyd (2003)
4. Bradac and Wisegarver (1984)	14. Frumkin (2007)
5. Brown et al. (1985)	15. Kang and Rubin (2009)
6. Bradac (1990)	16. Lev-Ari and Keysar (2010)
7. Rubin and Smith (1990)	17. Fuertes et al. (2012)
8. Rubin (1992)	18. Pantos and Perkins (2012)
9. Davila et al. (1993)	19. Huang et al. (2013)
10. Nesdale and Rooney (1996)	

Table 2. Updated list of publications on linguistic bias cited by philosophers

The second methodological decision I made concerned the fact that the first 11 of the remaining 19 publications are more than 20 years old. Meta-scientific analyses that explored the "half-life" of study findings in psychology (i.e., the average time for half of a knowledge body to become disproven) found that this time was ~9 years (Niemeyer et al., 2012, 2014; Arbesman, 2013). The likelihood that results change over time is particularly high if the target phenomenon is significantly influenced by social factors. Social biases fit the bill. They are not hardwired but change in interaction with social norms, education, and motivation (Eagly & Koenig, 2021). Relatedly, exposure to foreign accents has been found to reduce accent bias in some individuals (Boduch-Grabka & Lev-Ari, 2021). Especially in academia, there has been a drastic increase in communication between L1 and LX English users over the last 20 years due to increased globalization, collaborations, and social media use (UNESCO, 2022). These points may not threaten the reliability of the first 11 studies cited above. But they provide a basis for prioritizing the analysis of more recent work. I therefore decided to only briefly comment on one highly influential study (i.e., Rubin, 1992) that belongs to the 11 papers and to focus on the remaining 8 more recent publications. Given the space constraints here, a selection is inevitable and deciding (before full-text analysis) to focus on publications not older than 20 years offers a systematic, i.e., unbiased cap. To examine these studies, I have grouped them together according to themes that I indicate in each of the following subsection titles.

4.1 Effects of stereotypes about LX users

I begin with one of the influential older studies just mentioned because many philosophers have repeatedly cited it in discussions of linguistic bias. The study is by Rubin (1992). L1 English speakers listened to a pre-recorded humanities or science lecture by a non-foreign-accented L1 English speaker while they saw a photograph said to represent the speaker. Some participants saw a Caucasian, others an Asian face. Afterwards, participants were tested on listening comprehension and asked to rate the lecturer's accent. While the speaker had no foreign accent, overall, participants shown an Asian face nonetheless reported that they perceived a foreign accent, and they understood less. Kang and Rubin (2009) made similar findings. Some philosophers have taken these results to show that stereotypes about LX speakers negatively bias listeners' understanding of LX speakers, reducing it even when the speaker has no foreign accent (Ayala, 2015; Catala, 2021).

However, the studies involve a confounder. In Rubin's (and Kang and Rubin's) experiments, listeners' expectations of LX speech were *invalid*: There was no LX speech. And importantly, there is evidence that when individuals' expectations are violated and their perceptual processing has therefore a "false start", this "hinders object perception" (Puri & Wojciulik, 2008, p. 596). In Rubin's studies, an expectation mismatch may thus have similarly induced a 'false start' in language processing that interfered with listeners' understanding, making the expectation mismatch a potential cause of the results.

This expectation mismatch explanation has in fact been corroborated. When Gnevsheva (2018) tested this explanation against Rubin et al.'s negative bias thesis, she found that Asian LX English speakers "received similar foreign accentedness ratings" in *both* an audio and an audio-visual condition, while Caucasian LX-English speakers "received higher ratings in the audio-visual condition, in line with the predictions of the expectation mismatch effect and contradicting the negative bias hypothesis" (p. 595). That is, the perceived audio-video alignment in the first condition (comparatively) facilitated comprehension while a perceived mismatch (between Caucasian and LX accent) in the second condition inhibited it as the visual and audio inputs triggered conflicting experience-based representations. Similarly, McGowan (2015) found that Chinese-accented English was *more* intelligible to listeners when paired with an Asian face than with a Caucasian face, suggesting that listeners used stereotyped expectations that *facilitated* speech comprehension. Additionally, when Vaughn (2019) primed listeners via short descriptions of the purported LX speaker, this led listeners to improved accuracy in a transcription task compared to a control group given no prior information about the speaker: Listener stereotypes and expectations about LX speakers seemed to boost understanding. Rubin's broad claim (endorsed by several philosophers; Ayala, 2015; Catala, 2021) that expectations of LX speech generally negatively bias and reduce comprehension of LX English users is therefore questionable.

4.2 Implicit bias against LX-English users and overcorrection

Another study that has been cited in the philosophical literature on linguistic injustice concerns implicit bias and was conducted by Pantos and Perkins (2012). Pantos and Perkins assessed both implicit and explicit linguistic bias. To assess implicit bias against foreign accents, they used an implicit association test (IAT) involving associations between accented audio stimuli and US/foreign concepts and positive/negative attributes. To test for potential explicit accent bias, participants were asked to listen to fictional English testimony by two physicians, one with a Korean, the other with a US accent, in a medical malpractice trial. Participants had to rate the physicians on speaker credibility, trustworthiness, expertise, and competence. Pantos and Perkins found that participants' "implicit attitude favored the US accent" (2012, p. 3). On that basis, Ayala (2015) claims that this "research suggests that one does not even need to embrace an explicit bias against accented English or foreigners to exhibit biased treatment" such as recommending to hire a 'native' instead of a 'non-native' speaker (p. 3).

However, Pantos and Perkins in fact found that the IAT score "predicted expert witness choice, such that participants who revealed a stronger pro-US bias on the IAT were more likely to explicitly favor the Korean accented speaker" (2012, p. 12). This "predictive oppositional relationship" between the two attitude constructs suggests that listeners overcorrected (ibid). Thus, while Ayala would be right in noting that the study indicates that participants had an implicit linguistic bias even if they did not demonstrate an explicit linguistic bias, the research does not suggest that "one does not even need to embrace an explicit bias against accented

English or foreigners to exhibit biased *treatment*", i.e., discriminatory behavior against them[4] (Ayala, 2015, p. 3). Rather, the study suggests that people with implicit linguistic bias may display an overcorrecting treatment of LX users that *benefits* them. Relatedly, in their literature review, Roessel et al. (2020) write that Pantos and Perkins' (2012) finding of an overcorrection tendency

> mirrors our own unpublished research on the evaluation of native speakers versus non-native speakers with foreign accents in Germany. Across seven studies with employment or impression formation scenarios – with different non-native accents and designs – no significant downgrading effects emerged on the study level […]. If anything, the overall meta-analytic effect tended toward a descriptive upgrading of the non-native-accented compared with native speakers. (2020, p. 90)

Roessel et al. add that the "accumulating findings on absent negative accent biases may illustrate that people have normative concerns, and are sensitive toward biases and discrimination against non-native-accented speakers" (ibid). These points raise doubts about philosophers' claims that there is "overwhelming evidence of the pervasiveness of accent bias" (Catala, 2021, p. 9)

4.3 Do LX users suffer status and credibility deficits?

Most philosophers cited above have claimed that accent bias contributes to LX English users being viewed as having lower status and being less credible than their L1 English counterparts. The studies that philosophers have mentioned to support this claim include Lindemann (2003), Frumkin (2007), and Lev-Ari and Keysar (2010).

Lindemann (2003) asked L1 English users to evaluate L1 and LX (Korean-accented) English speakers in terms of each speaker's status, solidarity, and other language-related factors. Overall, average scores for each of the L1 English speakers were found to be higher than those for all LX speakers. However, the scores differed "not always by very much", and while all "native Korean speakers were evaluated more negatively on the status-related factor", on the "solidarity dimension", there was "no significant difference" (Lindemann, 2003, pp. 355, 356).

Moreover, there is also counterevidence to linking LX English use to perceived status deficits. When Baus et al. (2019) asked people to evaluate personality traits from short instances of Spanish and English speech, they found that many "listeners across languages form[ed] very similar personality impressions irrespective of whether the voices belong to the native or the foreign language of the listener" (p. 1). Baus et al. hold that their data "contrast with the idea that speakers of a foreign language are evaluated as less trustworthy, intelligent or competent than speakers sharing the language of the listener" (ibid). Similarly, using participants from three countries (Germany, Spain, Singapore) (total $N = 1699$), Nejjari et al. (2020) found that many LX English speakers assigned both L1 and LX English accents "equal status"; in some cases, the LX English accent received even higher status, affect, and dynamism (i.e., level of activity and liveliness) ratings than a L1 English accent (p. 27).

However, *credibility* ratings may be different. Ayala (2015) cites a study by Frumkin (2006) in which L1 English speakers viewed videotapes of eyewitness testimony (in criminal trials) that varied by accent and ethnic background of the eyewitness (German, Mexican, Lebanese) but had the same content. Participants had to rate the testifier's credibility, accuracy,

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[4] The point here is related to the more general problem with IAT scores that they are often only poorly correlated with discriminatory behavior (Oswald et al., 2013).

deceptiveness, and prestige. Frumkin found effects for accent on credibility ($r^2 = .14$), accuracy ($r^2 = .23$), deception ($r^2 = .30$), and prestige ($r^2 = .22$), i.e., accented (vs. non-foreign-accented) speech was rated less favorably. The effects are small. But the findings seem supported by other studies often mentioned to argue that LX-accents lead listeners to lower credibility perceptions. One influential one (cited by Contesi and Terrone, 2018) is by Lev-Ari and Keysar (2010). Lev-Ari and Keysar presented L1 English speakers with English trivia statements read by L1 and LX speakers. Participants had to rate each speaker's statement by its veracity and comprehensibility. Lev-Ari and Keysar found that "non-native speech is harder to understand than native speech", and "this 'processing difficulty'" was linked to people's judgments of the statements "as less true when spoken by a non-native than a native speaker" (2010, p. 1093).

However, several studies failed to replicate, or found counterevidence to, Frumkin's (2006), and Lev-Ari and Keysar's (2010) results. Here is a list, including studies that also involve languages other than English:

(1) Souza and Markman (2013) conducted three studies with L1 English speakers using Lev-Ari and Keysar's methodology but "failed to replicate the key finding that foreign-accented [English] speech is less credible than native-accented speech" (p. 1).

(2) Gibson et al. (2017) found that listeners' expected LX speakers to make errors and this made them more likely to interpret counterintuitive claims in a more *plausible* way when delivered with an LX vs. L1 accent, i.e., LX speakers enjoyed the benefit of the doubt.

(3) Stocker (2017) asked French- and Swiss-German-speaking participants to rate the truthfulness of (German and French) statements by speakers with foreign (Italian and English) accents, finding that "foreign accent [did] not seem to have an impact on credibility ratings" (p. 617).

(4) Foucart et al. (2020) tested whether L1 Dutch speakers would display a bias against foreign-accented Dutch speech, finding that "participants did not perceive the foreign speakers as less credible than they perceived the native speakers" (p. 1003).

(5) Hendriks et al. (2021) found that L1 English listeners did not more negatively evaluate (moderately) LX-accented (Dutch) lecturers teaching in English (including on a 'credibility' item; p. 9).

(6) Wetzel et al. (2021) compared credibility ratings of French speakers with either a familiar/unfamiliar L1 accent or a familiar/unfamiliar LX accent, finding that "native-speakers [did] not evaluate statements uttered with a foreign-accent as less truthful" (p. 61).

(7) Exploring under-informativeness (i.e., the phenomenon of people saying less than is conversationally required), Fairchild et al. (2020) and Ip and Papafragou (2021) found that individuals were more willing to believe and continue learning from an under-informative LX (vs. L1) speaker, seemingly ascribing omissions to speaker inability, not unwillingness.

(8) Lorenzoni et al. (2022) asked L1 Italian speakers to rate Italian (written) statements by an L1 and an LX speaker about unknown facts, finding that sentences about unknown facts were viewed as *more* acceptable, true, and trustworthy when uttered by the foreign speaker (e.g., when attributing knowledge to foreign speakers that differs from their own, people may become more trusting of foreign speakers when judging the credibility of unknown statements).

These data suggest that while there may be some conditions in which exposure to LX utterances triggers linguistic bias leading to negative judgments, there are other contexts in which it does not do so. This challenges several philosophers' claim that LX English users are "generally" subject to a linguistic bias in society and that the evidence is "overwhelming" (Ayala, 2015; Erlenbusch, 2018; Catala, 2021).

4.4 LX English in hiring situations

To further support their claim that LX speakers are generally perceived as less intelligent and competent, some philosophers (Ayala, 2015; Catala, 2021) have also cited Boyd (2003). Boyd asked Swedish school principals and teacher trainers to judge five LX Swedish teachers' language proficiency and teaching suitability based on recordings of their classroom interactions. Listeners' "judgements of grammatical correctness and of lexical richness did not match more objective measures of these aspects of the speakers' proficiency", and the "degree of accentedness partly determined listeners' judgements both of these and other aspects of language proficiency and of suitability to work as a teacher" (Boyd, 2003, p. 283). Similarly, in another job-related study cited by philosophers (Ayala, 2015; Contesi & Terrone, 2018), Huang et al. (2013) asked participants to review CVs and listen to recorded interviews with the corresponding candidates speaking English with L1 or LX accents. Participants had to indicate whether they would recommend the candidate for a management position. While the CVs and interview scripts were identical, Huang et al. found that LX speakers were less likely to receive job recommendations, and this was mediated by participants' assessments of candidates' 'political skill', i.e., their ability to effectively understand others and use this knowledge to influence them to achieve their objectives.

While Boyd, and Huang et al. (and philosophers citing them) take their studies to provide evidence of accent bias in hiring contexts, even if accent did influence participants' ratings, this need not indicate *unfair* discrimination. In some cases, LX English speech with a strong foreign accent may be hard to understand for both L1 listeners and other LX users. Being understandable is pedagogically valuable and important for being able to influence listeners and display political skill. If a strongly foreign-accented individual is judged as less suitable for teaching or management despite being otherwise equally competent as an L1 speaker, this is therefore not necessarily sufficient evidence of unfair treatment or bias because accent becomes hiring-relevant when it undermines understandability (Yuracko, 2006). Yet, neither Boyd nor Huang et al. controlled for understandability effects on the audience and measured whether those with LX-accented speech actually had less political skill. Their results thus do not clearly indicate linguistic bias (NB the kinds of hiring decisions relevant here might still be unfair for *other* reasons).[5]

Moreover, in other studies, many participants in fact ignored accent in hiring contexts. Deprez-Sims and Morris (2010) found that a Colombian English accent was not evaluated more negatively than a US accent in hireability ratings for a manager position. Similarly, when Deprez-Sims and Morris (2013) asked participants to evaluate applicants with US, French, and Mexican accents, only a strong French accent correlated with lower hireability. Finally, when Levon et al. (2020) compared analyses on accent bias in the British general population from the last 50 years, they did find "stable pattern of accent bias" (p. 16). But when they examined how

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[5] For instance, L1 listeners, too, perhaps have a responsibility to develop reflective language awareness, and LX users already bear a greater share of the cognitive load of the everyday communication in routinely 'accommodating' their L1 interlocutors. These points may be some of the other reasons as to why the hiring decisions at issue might still be unfair even if no linguistic bias is involved.

lawyers and professional recruiters responded to mock interviews with accented speakers, "unlike the general population", these people "did not show significant preferences" for a particular British accent, "nor did they show a consistent dispreference for working class or non-white accents" (ibid, p. 20). Thus, while accent bias may sometimes influence hiring, the data suggest that such effects may depend on certain conditions that do not always hold.

4.5 A meta-analysis

Existing philosophical contributions on linguistic bias predominantly cite individual studies on the bias. So far, I have done likewise. However, individual studies can have important limitations (e.g., unrepresentative samples) or can be contradicted by other studies. Unless the point is to illustrate the diversity of relevant findings on linguistic bias (this was my goal here), it may therefore be advisable to consult meta-analyses, which combine individual studies' effect sizes (Pae, 2015). Among the philosophers discussing linguistic injustice, Catala (2021) mentions one meta-analysis, namely Fuertes et al. (2012). This meta-analysis looked at 20 studies comparing the effects of 'standard' versus 'non-standard' (i.e., foreign or minority) accents on evaluations of speakers' perceived status, solidarity, and dynamism, and found that 'standard-accent' speakers were rated more positively than 'non-standard'-accent speakers ($d =$ .82).

To the best of my knowledge, Fuertes et al. (2012) is currently the only meta-analysis on accent bias in adults. It is unclear whether it captures social reality today[6] especially since "recent studies did not consistently find downgrading" of LX speakers (Roessel et al., 2021, p. 87). Moreover, it is a well-known problem that studies showing positive effects are more likely to be published than those that do not find effects ('publication bias'), which can significantly distort meta-analytic findings. Meta-analyses can and often do control for this bias by using, for instance, funnel-plot-based methods (Lin & Chu, 2018). Unfortunately, Fuertes et al. did not do so. Moreover, as Fuertes et al. note, all studies included "used the matched-guise technique or slight variations" (2012, p. 127), i.e., tests in which respondents evaluate linguistic expressions that they (falsely) believed to be from different speakers and in which, crucially, the speakers were strangers to respondents. In such "stranger-to-stranger" settings, social stereotypes are particularly likely to become operative because respondents lack individuating details about the speaker (Landy, 2008). In real-world interactions, however, we commonly do have some individuating information about others (e.g., from CVs, prior encounters, work experience). This matters because studies found that when people had such information available, they relied less on stereotypes in person perception, and highly diagnostic individuating information even took "primacy over stereotypes" (Rubinstein et al., 2018, p. 69). Since individuating information about speakers is absent in lab studies but commonly available in real life, the studies included in Fuertes et al.'s meta-analysis may have limited relevance for inferences on whether LX English users are often subject to linguistic bias in real life.

5. From accent bias against individuals in society to text bias in academia

I have now taken a critical look at the more recent primary studies and meta-analysis shown in Table 2. None contains evidence on *text* bias or pertains to academia. Yet, several philosophers have claimed that when their LX English manifests in writing, LX English academics may again

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[6] Spence et al. (2021) conducted a meta-analysis of studies on how accents, dialects, and language drive children's social preferences, finding that children prefer L1-accent, L1-dialect, and L1 speakers to LX counterparts (overall $d = $ .57). Extrapolating from these findings to adults in academia remains problematic, however.

suffer credibility deficits, harsher judgments about their papers' quality, and reduced chances of publishing (van Parijs, 2011; Ayala, 2015; Chiesa & Galeotti, 2018; Catala, 2021). There might be many factors that make such responding unfair since LX English users need to invest more cognitive work to write in English than L1 English users (Flowerdew, 2019). But is there evidence of a text bias in academia that philosophers who write on linguistic injustice could cite?

I could uncover only one study experimentally testing the matter: Politzer-Ahles et al. (2020) (also cited by Contesi et al., 2022), who focused on bias against 'non-standard' English texts. Scholars were asked to rate the scientific quality of scientific paper abstracts. Each abstract had two versions with identical scientific content. The language in one version conformed to 'standards' for international academic English. The other version, written in LX (Chinese) English, did not, but the content remained understandable. Politzer-Ahles et al. found that overall abstracts with 'non-standard' (vs. 'standard') English received lower scientific quality ratings.

However, from the 102 study respondents, only 37 responded to all abstracts, and 43 did not evaluate any abstract. The high withdrawal rate raises risks of selection bias, making the generalizability of the results questionable. Politzer-Ahles et al. also note that there was an error with list counterbalancing that may have caused problems with the statistical model that they had originally planned to use, and so they used further, exploratory analyses, trying to analyze the data with a more appropriate model, testing sample subgroups. Summarizing their analyses, Politzer-Ahles et al. concluded that the overall "results are statistically inconclusive" as to whether academic 'standard' (vs. 'non-standard') English texts are judged as having higher scientific quality (2020, p. 9). Notice too that regarding the scientific abstracts they used, Politzer-Ahles et al. write that they "specifically edited these abstracts to have 'worse' English (i.e., English that is less consistent with what readers expect international-'standard' academic English to look like) than that of most 'non-native' English-speaking scholars we have worked with or read" (2020, p. 4-5). The results may therefore not generalize to real-life academia.

6. Moving forward

Having considered a range of studies that philosophers have (or could have) cited to support the claim that empirical research shows that LX English users are generally subject to a linguistic bias (e.g., Ayala, 2015; Erlenbusch, 2018; Catala, 2021), I argued that these studies do not offer sufficient support for this claim. Other studies might do so, however. The upshot of the preceding sections is therefore limited. Yet, since the preceding review was systematic and I considered many key studies, the points made raise doubt about the kind of empirical claims currently found in several philosophical contributions on linguistic bias and cited in section 3. The discussion also supports five general recommendations that may help philosophers in their thinking about linguistic bias to develop more convincing empirically informed arguments concerning linguistic bias:

(1) *Specify the relevant kind of linguistic bias and the scope of your claims.* Since 'linguistic bias' may refer to different phenomena, remembering this diversity and specifying the relevant phenomenon upfront can help avoid unwarranted conclusions. For instance, if we do not distinguish linguistic stereotype bias from disfluency bias, we may overestimate the prevalence of prejudice against LX speakers (as disfluency bias need not be based on prejudice; Boduch-Grabka & Lev-Ari, 2021). Moreover, the claim that LX English users are subject to linguistic bias comes in different strengths (e.g., is the claim that they *can be*, or that they *generally are*

14

affected?), resulting in different arguments about this bias in academia. Clarifying which one is concerned can prevent misunderstanding.

(2) *Avoid using the 'native' vs. 'non-native' distinction.* The distinction between 'native' and 'non-native' language users that is commonly found in many philosophical papers on linguistic bias (see quotes in section 3) is scientifically and ethically problematic, as it obscures individual variations and can promote exclusion. The L1/LX distinction is preferable, as it is neutral on 'nativeness' (Dewaele et al., 2022).

(3) *Avoid using dated studies.* Since the half-life of results from many psychology studies has been found to be ~9 years (Niemeyer et al., 2014) and cognitive tendencies such as social biases that are shaped by social conditions are likely to change over time, results of studies on linguistic bias, too, may quickly become out-dated. Relying on studies on this bias that are older than 10 year can thus be epistemically problematic.

(4) *Consider alternative explanations of results.* Several philosophical contributions that claim that LX English users are generally subject to linguistic bias overlook that some important empirical findings (e.g., Rubin's (1992) and Kang and Rubin's (2002)) that seem to indicate such a bias may be explained without postulating linguistic bias. As illustrated, these alternative explanations are in some cases well supported (section 4.2). Considering such explanations and potential confounders can make philosophical contributions on linguistic bias that draw on empirical data more compelling.

(5) *Aim for a balanced picture of the evidence.* Currently available philosophical papers on linguistic bias do not mention studies that challenge the idea that LX English users are generally subject to linguistic bias. Since (as illustrated) there are many studies that provide counterevidence, the existence of these studies should be noted. This is because giving the impression that L1 English users pervasively face linguistic bias in society or academia when this is not the case may disincline them from making contributions to debates, or may make them feel uncomfortable about themselves and worried about disapproval from others when this is unwarranted, potentially contributing to performance deficits and negative self-fulfillment effects (e.g., related to descriptive norms, Peters, 2023).

7. Conclusion

To clarify, linguistic injustice can manifest in, but is not reducible to, linguistic bias, and this bias should be tackled. So, I do not deny that linguistic bias is real. Moreover, I did not maintain that the claims about linguistic bias in the here mentioned philosophical papers on linguistic injustice are false (showing that claim *C* lacks sufficient support is not the same as showing that *C* is false). Instead, I tried to offer corrections to parts of the philosophical debate on linguistic bias. I began by arguing that this bias comes in different types. Some may be more pernicious and pervasive than others. I then focused on LX English accent and text biases. Several philosophers have cited empirical studies to argue that LX English users are generally subject to these biases in society, academia, and philosophy. However, upon review, I found that many of these studies do not establish this claim, as they involve confounders, failed to replicate, or lack generalizability. Yet, recent philosophical contributions that cite empirical work on linguistic bias do not mention any limitations of this work or contradictory evidence regarding the effects of the bias. To help remedy this, I offered five recommendations for empirically oriented philosophical theorizing on linguistic bias. Following them may put us in a

better position to convince others of the need for social change toward more linguistic justice in academia and beyond.

Acknowledgements

Disclosure statement

The author reports there are no competing interests to declare.

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