


ORIGINAL ARTICLE

The danger of bilingual–monolingual comparisons in applied psycholinguistic research

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(Received 31 May 2022; revised 14 September 2022; accepted 16 October 2022; first published online 01 December 2022)

Abstract

The pervasive monolingual bias present within many societies threatens the well-being of bilingual children and their families. Unfortunately, such bias is present in much psycholinguistic research as well. Bilingual–monolingual comparisons with methodological approaches upholding monolingual norms are not equitable to bilinguals. We do not need such comparisons to learn more about bilingual use and processing. Instead, psycholinguistic research investigating the impact of different kinds of environments for language learning, use, and processing within bilingual populations can be transformative. Applied psycholinguistic research with an increased focus on investigating *all* the languages bilingual children and their families need for day-to-day communication, and on the factors supporting their learning and use, can help inform educators, policy makers, and language and speech professionals. This will hopefully contribute to the well-being of the people we study.

Keywords: bilingual; monolingual; children; families; well-being; equitable methods; bias

As researchers studying people, we have a responsibility toward our respondents. At the very least, we should use equitable methods to study them. Ideally, our research should also benefit the populations we study. This position piece focuses on bilingual populations, who constitute a large proportion of individuals in so-called Western societies, where much of applied psycholinguistic research is carried out. An estimated fifth to over a third of school-age children there hear a language other than, or in addition to, the local societal language (SocL) at home (De Houwer, 2021, p. 4; children typically attend school in the SocL). Thus, large numbers of children and, by implication, their families, experience bilingualism. The well-being of bilingual families and children may be under threat if researchers hold a monolingual bias. As discussed in this article, such bias is shown through several

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methodological choices. Fortunately, there are ways to overcome the bias in research with bilinguals.

Before explaining the central terms bilingual(ism) and monolingual bias, I recount some personal experiences as a backdrop for this paper.

Positionality statement

I can still remember the jeers I heard from peers as a 7-year-old when I used a different variety of Dutch than they spoke. As a young adult, I heard a father angrily saying his 3-year-old was rejecting him because she did not speak his language (English) to him. As a parent in a bilingual family, I met up with discrimination when a teacher in Flanders told me to stop speaking French to my 6-year-old after I said she was raised bilingually. After explaining that her father spoke English to her and I myself Dutch, the teacher said “oh, that’s ok then!”. Later I heard a preschool teacher gleefully recount that she punished 4-year-olds by putting them in a broom closet if she heard them speak another language than the SocL. A mother tearfully thanked me for advice I had given her earlier about how to make sure her son answered back in the same language she was speaking to him. After a talk I gave in Israel explaining that early bilingualism was not a threat to language development recently arrived young mothers from Russia collectively hugged me out of thankfulness for implicitly giving them the permission to speak Russian to their preschoolers rather than a new language they could not yet express themselves in.

Apart from language shaming (Piller, 2016) when I was 7, my own experiences with language learning and use have been quite positive. I have been hearing and using several varieties of Dutch since early childhood. As a preschooler in Pakistan, I regularly overheard English and Urdu. I developed a fascination with English, although nobody spoke it with me until adolescence. I had French lessons at primary school in Flanders and heard several varieties of German throughout my school years. My English teacher praised me for my “good” English accent. Because I realized the social value of sounding “good” in any language I practiced reading aloud in four languages every day in my 17th year. This helped me easily switch between languages and hone my pronunciation.

My Dutch, English, French, and German skills have served me well in both my private and professional life. I have lived in regions with each of them as the SocL. As a European from a socially privileged background, I am grateful to have had the opportunity to learn to use my languages at fairly high levels in supportive contexts. Being bilingual is a valuable part of my self-ascribed identity.

While completing my master’s thesis on definitions of bilingualism, I started collecting data that later served as the basis for my doctoral dissertation. I have 45 years of research experience with both bilinguals and monolinguals and have been involved in outreach activities with parents in bilingual families, (pre)school teachers, speech and language professionals, pediatricians, and social workers throughout (see <https://vimeo.com/732161227/5e74d7914c>). I believe research in the social sciences should help serve the populations we study whilst upholding the highest standards of methodological rigor. Because my expertise lies primarily with children, this article focuses mainly on that population. Many points, however, apply to older bilinguals as well.

Bilinguals: not two monolinguals in one

There are many perspectives on who counts as a bilingual. Whenever I asked European college students to raise their hand if they were bilingual very few did, even though I was addressing them in a language they had not learned in childhood and they had had years of foreign language instruction in at least two languages. When asked whether they considered themselves to be monolingual (the supposed opposite), they were puzzled and agreed they were not. Many people who fluently speak several languages have told me they do not consider themselves to be bilingual.

“Real” monolinguals, that is, people who know just a single language (including scholars studying bilinguals), may also have restrictive notions of who counts as a bilingual. Most commonly, only individuals who have acquired two languages from birth are considered bilingual. This view ignores the fact that a large proportion of school children with two languages from birth speak only a single language (De Houwer, 2021). It also excludes the millions of children who start learning a second language at (pre)school and countless older people who start learning additional languages later on, many of whom, like myself (see earlier), end up as fluent and highly proficient speakers of those languages (De Houwer & Ortega, 2019).

Following current conceptualizations in many psycholinguistic studies of bilinguals, Prior and van Hell (2021) consider any person who uses more than one language in the course of their daily life to be bilingual. I adopt this conceptualization as well and use “bilingual” to include persons with not just two but also more languages.

Proficiency in a particular language and the very use of it, in any modality, can wax and wane throughout a bilingual’s lifespan (De Houwer & Ortega, 2019). Bilingualism is “a constellation of overlapping, continuous and multi-dimensional spectra” (Luk & Rothman, 2022, p. 2) rather than a categorical variable (Claussenius-Kalman et al., 2021). Bilinguals’ knowledge and/or processing of one language is typically influenced by their knowledge and/or processing of the other one (Prior & van Hell, 2021). Also, bilingual individuals typically show a “distributed characteristic” (Oller et al., 2007), that is, they tend to know some words in one language but not the other. Yet many researchers studying bilinguals do not take these realities into account and, as Grosjean lamented many years ago, feel that bilinguals should have “equal and perfect fluency in each of their languages” (1998, p. 133). The more we discover about the nature of individual bilingualism, the more Grosjean’s (1985) famous exhortation of even earlier is confirmed: bilinguals are not two monolinguals in one. Yet many far more recent comparisons between bilinguals and monolinguals still appear to assume they are. These comparisons are rooted in what has been called the monolingual bias.

The monolingual bias

With few exceptions, educational institutions and public life in Western societies use a single SocL (e.g., in the officially Dutch-speaking area of Belgium, Flanders, it is Dutch; in the US, it is English). This accords higher status to whatever SocL is spoken in a particular region and is often accompanied by a normative

ideology idealizing the local SocL as the only important one; often, other languages are met with negative attitudes (Fuller, 2019).

Negative attitudes toward particular languages are often linked to discriminatory attitudes toward people. Such discriminatory attitudes are unfortunately widespread (e.g., Australia: Piller, 2016; Europe: OECD, 2014; the US: Kircher & Kutlu, 2022). Negative language attitudes create and perpetuate social inequality (Piller, 2016). They support the biased and discriminatory view that “people who speak only one language, that is, monolinguals, are the norm and that bilinguals [...] are exceptions to that norm” (Barratt, 2018, abstract). This monolingual bias present in monolingual SocL speakers often coincides with negative attitudes toward languages other than the local SocL (Fuller, 2019).

A specific form of the monolingual bias is the “native speaker” bias. Bilinguals are often compared to an idealized “native speaker” norm and are openly evaluated negatively, even in the current journal: Contemori and Tortajada (2020) wrote that “non-native speakers have *inferior* linguistic competence” (p. 74; my emphasis). The term “native speaker” of a language refers to a person who has learned that language from birth. The notion is discriminatory when it is upheld as a norm for people learning that “native speaker’s” language later in life, since it is “fundamentally unjust to judge a person’s linguistic competence solely on the fact that they were born into the language” (Dewaele et al., 2022, p. 23). However, being born into a language may not be enough. For instance, Hoff (2018) denied “native speaker” status to children growing up with two languages from birth: “early exposure to two languages does not guarantee native-like proficiency in two languages” (p. 80). Is whatever proficiency these children develop in two languages not native-like by virtue of the fact that children were born into them?

As explained next, the monolingual basis may negatively affect bilinguals’ well-being.

Effects of the monolingual bias on bilinguals’ well-being

Fluent speakers of several languages may feel they are not “good enough” in any of their languages (cf. many personal communications over several decades). They are constantly comparing themselves to some idealized “native speaker” norm. Such comparisons may give rise to feelings of inadequacy and dissatisfaction and may negatively affect bilinguals’ well-being.

More importantly, families living with bilingualism may experience language-related discrimination deeply affecting their socio-emotional well-being (De Houwer, 2020; Sevinç, 2022). Such discrimination may come from pediatricians, (pre)school teachers, and speech therapists, who often evaluate bilingual children’s SocL performance solely with reference to monolingual norms and make far-reaching decisions regarding children’s trajectories based on those norms (Genesee, 2022). Children who attend (pre)schools where their home languages are not given any recognition may retreat into long periods of depressed silence (De Houwer, 2020, 2021). Furthermore, parents may be advised to speak only the local SocL to children (De Houwer, 2009; Genesee, 2022). Relatives may support such advice, and parents may (start to) believe that a bilingual upbringing stands in

the way of children's SocL development (Piller & Gerber, 2021). As a result, many parents give up speaking a non-societal language (Non-SocL) to their children and switch to the SocL, even if they do not speak it well and/or it feels contrived to do so (De Houwer, 2017, 2020).

Of course, it is important that all children learn the SocL needed to function in their local community. However, for their well-being within the family it is equally important that children learn to fluently use the Non-SocL, too. Without proficient use of the Non-SocL, communication between parents and children may be disrupted, thus negatively affecting parent-child relationships and parents' abilities to educate their children, and communication with grandparents and other important adults may become impossible (De Houwer, 2020).

Negative attitudes toward early bilingualism and particular languages exist in society at large. As exemplified in much of the remainder of this article, they may be reinforced by research.

The role of researchers

Findings of our applied psycholinguistic research often find their way to the world outside of academia and inform, amongst others, educational and clinical practices. A press release post by the German pediatricians association (Berufsverband der Kinder- und Jugendärzte e.V.) in November 2018 stated: "Kinder, in deren Umfeld von klein auf zwei Sprachen gesprochen werden, brauchen länger als einsprachig aufwachsende Kinder, bis sie eine Sprache gut sprechen können" ("Children in whose environment two languages are spoken from an early age need longer than monolingual children before they can speak one language well," my translation; <https://www.kinderaerzte-im-netz.de/news-archiv/meldung/article/spracherwerb-mehrsprachig-aufwachsende-kinder-brauchen-laenger-denn-sie-lernen-mehr/>). This statement reflects decades of widespread bias in Western societies. However, it is simply untrue. Young bilingually reared children with normal hearing and typical neurological development learn to understand and speak *at least one language* to levels similar to monolingual peers at similar ages (De Houwer, 2021; Genesee, 2022; Paradis et al., 2021).

Importantly, deficit-oriented ideas like the one expressed in the post above can have dire real-life consequences. For instance, pediatricians who believe that bilinguals develop more slowly than monolinguals may fail to examine non-verbal 2-year-olds' hearing status, thereby missing an underlying hearing disorder as the real reason for children's unexpected course of language development and failing to give children and families the support they need (De Houwer, 2009).

In claiming a bilingual delay, the German pediatricians association referred to Hoff's (2018) statement that "Bilingual children from immigrant families often lag monolingual children in the development of the majority language while also having poor skills in their heritage language" (p. 83). Hoff supported this statement mainly by discussing single language measures of children's production vocabulary in her earlier work on Spanish-English toddlers (Hoff et al., 2012) and preschoolers (Hoff & Ribot, 2017). Both studies found bilingual-monolingual group differences for the SocL, English. In addition, Hoff et al. (2012) found *no* bilingual-monolingual

differences based on the size of toddlers' total production vocabulary size or on the use of combinatorial speech (in any language; combinatorial speech refers to children joining two or more words into a single utterance, an important early language milestone). Hoff (2018) does not discuss these important cross-language findings referring to the totality of what bilingual children can do (as is always done for monolinguals). Although it is mentioned that bilinguals are not two monolinguals in one, the choice to present research findings focusing on bilinguals' use of a single language can be seen as perpetuating a monolingual bias that may have far-reaching negative consequences for bilingual children and their families.

Genesee (2022) explains how earlier studies (including my own) comparing bilingual children's language development to that of monolinguals had an important purpose, viz., to address deficit views in society at large. That research has shown that learning more than a single language is not a danger to children's development (see above). Furthermore, if children's language abilities are considered holistically, that is, encompassing two languages for bilinguals, comparisons may actually find better bilingual than monolingual performance on a particular measure. De Houwer et al. (2014) found that 13-month-old bilinguals knew 71% *more* words than matched monolinguals; Legacy et al. (2016) found far greater comprehension vocabulary in bilingual than monolingual toddlers. These findings, however, have not received much attention.

Comparisons showing cognitive advantages for bilinguals over monolinguals have found greater resonance. There has been substantial controversy on the subject though, and the issue is far from settled (Ware et al., 2020). However, a good outcome outside of academia before controversies arose has been the positive slant given to bilingualism in prominent media (see, e.g., an article in the New York Times from March 17, 2012, entitled "Why bilinguals are smarter," https://www.nytimes.com/2012/03/18/opinion/sunday/the-benefits-of-bilingualism.html?_r=1). The Association for Psychological Science wrote on its website shortly afterwards (<https://www.psychologicalscience.org/news/why-bilinguals-are-smarter.html>): "Researchers, educators and policy makers long considered a second language to be an interference, cognitively speaking, that hindered a child's academic and intellectual development." Thus, one might argue that bilingual–monolingual comparisons relating to cognition (in particular, executive function) had a good "public relations" outcome in terms of deflecting from negative attitudes toward bilingualism, at least in part of society.

The monolingual bias remains strong, however. Many researchers belong to Western societies upholding monolingual standards for language use (Holmes et al., 2022). Because "[t]he way we do research is socially significant" (Zhu, 2020), researchers can either reinforce the monolingual bias or we can work toward a less discriminatory and thus more equitable view of bilinguals. Although changes are underway (e.g., see the 2022 Special Issue of *Brain and Language*, Volume 228, entitled *Experience-based individual differences associated with multilingualism in the mind and brain*), much psycholinguistic research involving bilinguals *solely* relies on bilingual–monolingual comparisons. As I explain below, many of these reflect a monolingual bias. But first I discuss the most basic issue in such comparisons, viz., participant background characteristics.

Participant background characteristics in bilingual–monolingual comparisons

One finding from Ware et al.'s (2020) meta-analysis was that a bilingual advantage in executive functioning is more likely to be seen in older participants. Other participant background characteristics possibly moderating bilingual–monolingual comparisons could not be examined because studies contained insufficient information (Ware et al., 2020, p. 15). In bilingual–monolingual comparisons, participant background characteristics are of crucial importance. Since they are meant to elucidate the question whether knowledge of several versus just a single language affects psycholinguistic processing and outcomes, care must be taken to constitute respondent groups differing only or mainly in the number of languages known.

Fulfilling this methodological requirement may only be possible for young children. For instance, De Houwer et al. (2014) studied 61 typically developing, singleton, first-born, non-adopted, same-aged children acquiring high status languages from birth who lived in dual-parent families of similar socio-economic status with similarly aged parents (mostly part-time-working mothers and full-time-working fathers). The only controllable difference was that half the children grew up with a single language and the other half with two (similar gender distribution within each group). Constituting these demographically highly similar groups took 2.5 years of recruitment. Most grants do not allow for such long time scales. Thus, researchers will need to make compromises and try to minimize variability amongst participant groups.

Some do so, also with older study participants (Romano, 2020), but often there is hardly any demographic information on participants (as in Fujita & Cunnings, 2021), rendering it difficult to interpret research results in terms of just the number of languages. Prior and van Hell (2021) caution that many respondents who are classified as monolinguals may in fact be bilingual.

The inherent difficulty of constituting participant groups differing mainly with regard to the number of languages is a fundamental methodological reason for abandoning bilingual–monolingual comparisons. Yet many continue to be published.

Methods in bilingual–monolingual comparisons showing a monolingual bias

Much of psycholinguistic research on bilinguals habitually compares them with monolinguals. This very fact implies that monolingualism is held up as a standard. The fact that comparisons to bilinguals in studies focusing on monolinguals are lacking reinforces this implication. As selectively exemplified below, other methodological approaches may reflect a monolingual bias as well.

Unique focus on the SocL

Many psycholinguistic studies comparing bilinguals and monolinguals focus exclusively on the SocL. Contemori and Tortajada (2020) compared responses of bilingual and monolingual college students to an experimental task in English, the SocL.

Bialystok et al. (2010) compared receptive vocabulary scores for bilinguals and monolinguals between ages 3 and 10, focusing only on test results for English, the SocL. De Cat (2020) compared bilingual and monolingual primary school children's proficiency in English, the SocL. An explicit study goal was to identify "the amount of school language experience beyond which bilingual children are likely to perform within the monolingual range" (p. 279). Focusing on 3- and 4-year-olds, Dubowy et al. (2008) showed much worse performance for bilinguals than monolinguals on several proficiency measures in German, the SocL.

Aside from the question as to why these studies did not investigate respondents' proficiency in their Non-SocL as well, at issue is what bilingual–monolingual comparisons can teach us when the so-called bilinguals have not had much of a chance to develop any SocL proficiency. As noted by Dubowy et al. (2008), this was the case for many of their "bilingual" subjects; English input histories were not mentioned in Bialystok et al. (2010). Yet the length of SocL learning experience plays a great role for bilinguals' SocL proficiency into the early primary school years (De Cat, 2020).

To be fair, De Cat (2020) gave much attention to bilinguals' experience with their Non-SocL and the extent to which they were reported to speak it. Yet the sole focus on SocL proficiency in this study and many others (space does not permit further review) implies that participants' other languages are unimportant or at least less important. This view trickles through to the world outside academia. If people mainly hear about studies of bilingual children's performance in the SocL, and if this performance is constantly compared to monolingual children's performance in that language only, it is no wonder that teachers and even parents focus mainly on the SocL, too.

Tools used to assess language proficiency

Even without explicit bilingual–monolingual comparisons, methods may reinforce a monolingual bias. This happens, for instance, when bilinguals are asked to rate their or their children's SocL proficiency in comparison to how "native speakers" or monolinguals would use a particular language (Peña et al., 2021, review questionnaires asking respondents to do so). Such questions imply that monolinguals are the norm and that there is a uniform way in which "native speakers" use language. However, there is great variation amongst so-called "native speakers." This variability starts in infancy, when some same-aged monolingual 12-month-olds understand 20 times as many words as others (cf. norms for the MacArthur-Bates Communicative Development Inventories; <https://mb-cdi.stanford.edu/>). This variability continues across the lifespan as we consider some, but certainly not all, adult "native speakers" to be great orators and others, but definitely not all, to be great writers. Treating monolinguals as a homogeneous group is a methodological mistake (Luk & Rothman, 2022; Prior & van Hell, 2021).

Questions asking bilinguals for ratings compared to monolinguals assume that participants have a way of knowing what idealized "native speaker" usage consists of. Furthermore, they discount bilinguals' own agency and communicative skills in whatever languages they know, independently of monolingual norms. For instance, a Polish craftsman in Belgium I know speaks Polish as a first language. He has learned to speak Dutch and French through interacting with clients, suppliers,

and co-workers. He understands his three languages quite well. He speaks Dutch and French fluently but makes grammatical errors. Sometimes, I have asked him to clarify an unexpected French verb form (it being unclear whether he was referring to the past or the future) but he clearly does not reflect on his usage in terms of “right” or “wrong.” Thus, he is not comparing his proficiency to any monolingual norm. He is able to get his work done in whichever language he is familiar with and apparently feels perfectly fine with this. Asking him to rate his French proficiency compared to a “native speaker” of French would make little sense.

Tests constitute additional ways of assessing bilingual proficiency. Most tests are unilingual. Some have been adapted to other languages. Thus, bilinguals can be tested in two language versions of what is essentially the same test, allowing for interlinguistic comparisons (Peña et al., 2021). The fact that respondents are tested in each of two languages separately implies they can “switch off” the other language and can follow the investigators’ imposed language choice, something Grosjean (1998) already warned may not be possible. Especially, young children may not have experienced any need to stick to a single language with anyone. In addition, their lexicon is distributed over two languages and they may not know each meaning in two languages (Oller et al., 2007). This is why bilingual tests allowing children to use either or both of their languages in their responses are a good idea (e.g., Brownell, 2001). However, researchers inappropriately turning such tests into twice a monolingual test, as done by Anthony et al. (2009) and Hoff and Ribot (2017), defeat the purpose. Children’s responses in the “wrong” language may not be deemed acceptable, and thus discounted, or, if children do not know the answer in the “right” language, they may remain silent. The result is that children’s abilities are not properly tapped. If later their incomplete scores (in a single language) are compared to those of monolinguals, the basis for comparison will be slanted in favor of monolinguals even before any comparisons have taken place. Apart from being methodologically plainly mistaken, these kinds of comparisons are thus discriminatory.

Data collection

Bilingual–monolingual group comparisons may be based on data collection methods that are appropriate for monolinguals but that do not give sufficient attention to the nature of bilingualism. Collecting data on just the SocL is one example (cf. above). Furthermore, some data collection methods involving all of a bilingual’s languages may not fully capture the range of behaviors measures are aimed at. They may thus pre-empt any later comparisons with monolinguals. This applies not only to language choice options during testing (cf. above) but also to other methods. For instance, research on children’s early language development frequently relies on parental ratings. Often one parent is asked to rate bilingual children’s language use (e.g., Cote & Bornstein, 2014). Parents in bilingual families may indeed be able to report on both their children’s languages. However, ratings regarding a language X that parents do not usually address to children underreport children’s X vocabulary compared to reports by parents who often speak X to children (De Houwer, 2019). Relying on possibly very limited data for X from only one bilingual parent is not an acceptable or fair basis for later comparisons with monolinguals, whose parents are reporting on a language they regularly use with children. At a

minimum, each parent in a bilingual family should report on a different language if they often speak a different language to children (Marchman & Dale, 2018). This would constitute a more equitable way to collect bilingual parent report data.

Analytic procedures

Bilingual–monolingual comparisons may solely compare how bilinguals perform in each language separately, thus implying that bilinguals should be seen as two monolinguals in one. As such, studies may miss important facts relating to bilinguals' language abilities. Especially, with regard to the lexicon, researchers should take into account the “distributed characteristic” (cf. earlier) and analyze what bilinguals know in both their languages combined. Not doing so may help support a deficit view of bilinguals. For instance, Hoff and Ribot (2017) analyzed English and Spanish raw vocabulary scores in each language separately. The authors concluded that “the children with bilingual exposure lagged behind the monolingual children by 6 months to 1 year in their acquisition of English-expressive vocabulary” (p. 244). Children also knew Spanish. Even though children's Spanish scores were generally lower than their English ones, a child-by-child combination of scores across languages likely would have yielded a different picture. Solely comparing *part* of bilinguals' vocabulary with *all* of monolinguals' vocabulary confirms the monolingual bias.

Proposals for a way forward that does not threaten bilinguals' well-being

As shown above, methodological choices in bilingual–monolingual comparisons may imply a monolingual norm. This comes on top of issues with participant group comparability.

Studies of bilinguals only focusing on the SocL and on comparisons with monolinguals in just that SocL should present solid empirical and methodological grounds as to why they are ignoring participants' other language(s) and why they absolutely need a monolingual comparison. A minimum ethical requirement is attention to *all* of a bilingual's languages (cf. also Genesee, 2022). The question is how we can move forward beyond this basic requirement, so that the psycholinguistic study of bilingualism moves away from a pernicious monolingual bias and thereby becomes more equitable.

Fortunately, there now are more and more studies focusing exclusively on bilinguals, thus showing we do not need monolingual comparisons to gain insight into bilingual psycholinguistic functioning. Examples of studies reporting just on bilinguals include Sierens et al. (2019), who elucidated factors underlying preschoolers' learning of the SocL but with due attention to children's knowledge of the Non-SocL. In this journal, Bitetti et al. (2020) offered important insights into the relation between preschoolers' two languages. Blom et al. (2021) examined factors supporting SocL acquisition in newly arrived refugees and also considered children's proficiency in the Non-SocL. Hwang et al. (2020) exemplified how we can move “to a more asset-based view” (p. 20) of bilingual children using measures tapping double language knowledge. Vocabulary tests allowed Spanish–English-speaking children to respond in either language (English was the SocL). Holistically derived

production scores, based on children's global knowledge, predicted children's academic English proficiency and reading comprehension.

Holistic tests (like Brownell's, 2001, see earlier) offer the sort of approach to bilingual proficiency measurement we need. For too long, the monolingual bias has kept researchers focused on proficiency measures developed for monolinguals. In some cases, it may be possible to carefully rely on monolingual norms in two languages to help evaluate bilingual proficiency (De Houwer, 2019), but we need more tests specifically made for bilingual populations and norms based on bilinguals.

Because of the wide variability in holistic proficiency profiles, not only in children (De Houwer, 2021) but also in adults (Luk & Rothman, 2022) the challenges are great. Yet we need instruments that can reliably distinguish between levels of global bilingual proficiency without resort to standardized monolingual norms or empirically unverifiable and discriminatory "native speaker" usage. Researchers could take inspiration from the approach to "plurilingual competence" of the Common European Framework of Reference for Languages (Council of Europe, 2020, pp. 123 ff.). Measures could be supplemented by self-rating questions such as *Do you feel you can effectively communicate in [language X]?* and/or *Do you feel comfortable communicating in [language X]?*

Even without new instruments encompassing bilinguals' global proficiency research focusing on variability within adult bilinguals is an important way forward for studies examining bilingual functioning (Claussenius-Kalman et al., 2021; Luk & Rothman, 2022). A positive outcome of the "cognitive advantage" controversy consists of a new focus on the role of bilinguals' language learning histories and/or their language use, away from a stark bilingual-monolingual opposition (Prior & van Hell, 2021). Liu et al.'s (2021) longitudinal study relating second language learning experience to structural brain adaptations without monolingual comparisons is a good example. For children, more and more attention is given to both child-internal and child-external factors that can help explain the wide variability amongst bilinguals' language development (review in De Houwer, 2021). Understanding those factors is important as a basis for real-life decisions parents and educators need to make to support children's well-being.

Finally, professionals serving bilinguals in speech clinics or schools often have a good knowledge of their first language but are not able to read scientific articles in English. Results of non-discriminatory studies about bilinguals (by definition not limited to English speakers) should be available to a wide professional audience working with this population. I propose that for studies involving bilinguals a two-page summary in any two additional languages is routinely published besides the usual English abstract. This will help spread the word about bilingual usage in its own right, help deviate attention from monolingual norms, and may thus contribute to bilinguals' well-being.

Conclusion

Growing up bilingually and being part of a bilingual family can be quite challenging. Negative attitudes toward bilingualism exist within many societies, revealing a pervasive monolingual bias. Many parents worry that a bilingual upbringing will harm

their children. In spite of reports on cognitive advantages for bilinguals compared to monolinguals, constant comparisons with monolinguals in terms of language proficiency in the SocL lead to feelings of insufficiency in many bilinguals. They also affect decisions with regard to language in education, speech therapy, and at home that may threaten bilinguals' well-being.

Much of psycholinguistic research concerning both children and adults shows a monolingual bias implying that bilinguals should behave as highly proficient monolinguals in each of their languages. This is a deficit notion. Continued *sole* or main focus on bilingual–monolingual comparisons in research on bilinguals perpetuates this notion. For decades, the most prominent psycholinguist studying bilingualism, François Grosjean, has warned against a monolingual bias in research. Early on, he was joined by colleagues from related fields such as Vivien Cook (1991). The fact that even today leading psycholinguists such as Fred Genesee (2022) and Luk and Rothman (2022) feel the need to call out against using monolingualism as the default benchmark of comparison for bilingualism shows that it is, sadly, still necessary to do so. I join these scholars in calling for far less attention to bilingual–monolingual group comparisons. They are not sufficiently equitable to bilinguals and may negatively affect the well-being of families living with bilingualism.

One can ask how our current knowledge of the psychological processes involved in language, language development, use, and disorders might be different if from the beginning the focus had been on bilinguals rather than monolinguals (cf. also Vaid & Meuter, 2017). Likely, quite different hypotheses would have been advanced, and from the start there probably would have been far more attention to respondents' linguistic environments.

Evidence is mounting that these environments play a large role in shaping bilinguals' language development and use. Psycholinguistic research on the impact of different kinds of environments for learning, use, and processing within bilingual populations can be transformative and will take us away from simplistic conceptualizations of bilinguals solely in terms of how well they are performing compared to monolinguals. Such more socially just methods have the potential of turning the tide away from a monolingual bias. I fully concur with Luk and Rothman (2022) when they write: “new approaches in characterizing multilingualism will continue to propel our fields beyond simple group comparisons, increasing ecological and social justice validities for understanding multilingualism in a global perspective of the 21st century” (p. 3).

By diverting attention from monolingualism and paying more attention to environmental factors for bilingual processing and use, we can develop a better understanding of the rich facets of bilingualism. Applied psycholinguistic research with an increased focus on the learning and use of *all* the languages bilingual children and their families need for day-to-day communication, and on the factors supporting this learning and use, can help inform educators, policy makers, and language and speech professionals. This in turn can contribute to increased well-being of the bilingual people we study.

Acknowledgements. I am grateful to the editors of this Special Issue, the reviewers, and Wolf Wölck and Lourdes Ortega for helpful feedback on this paper.

Conflict of interest. The author declares none.

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Cite this article: De Houwer, A. (2023). The danger of bilingual–monolingual comparisons in applied psycholinguistic research. *Applied Psycholinguistics* *44*, 343–357. <https://doi.org/10.1017/S014271642200042X>