Dichotomies as points of departure: A response to Truscott and Sharwood Smith (2024)

Abstract
We here respond to a 2024 *Discussion and Commentary* article entitled *Dangerous dichotomies and misunderstandings in L2 research* by Truscott and Sharwood Smith (T&SS), who argue that several dichotomies pervade the field of second language acquisition (SLA) that negatively impact progress in the field. T&SS focus on four dichotomies, all of which imply an opposition of generative and usage-based approaches: (i) Cognitive vs. Generative, (ii) Usage-based vs. Generative, (iii) Dynamic vs. Static/Fixed, and (iv) Innatist vs. What? We find T&SS's specific approach problematic as corrections are overly skewed towards a single side; some imprecisions are simply swapped for others; and at times, crucial developments in both generative and usage-based approaches are ignored. Thus, we—two usage-based and one generative language researcher—combine forces here to offer our perspective. For the "dangers" that T&SS list regarding each of the four dichotomies they discuss, we provide a synopsis of where we agree with T&SS and where we do not; and based on where we see contemporary generative and usage-based approaches stand with regard to these four dichotomies, we offer an alternative set of statements that we consider more balanced and nuanced than the "corrective statements" initially offered in T&SS (2024).

Keywords
Generative approaches, usage-based approaches, domain-generality, domain-specificity, innateness, modularity, social factors

1. Introduction

In a recent *Discussion and Commentary* article entitled *Dangerous dichotomies and misunderstandings in L2 research,* Truscott and Sharwood Smith (2024), henceforth T&SS, argue that several dichotomies pervade the field of second language acquisition (SLA) and suggest that these dichotomies play a clandestine role in fostering and sustaining, perhaps even advancing misunderstandings that negatively impact progress in the field. While acknowledging some functional utility for dichotomies as a shorthand to refer to bona fide points of distinction that are more complex than a given context would permit discussion of, T&SS warn of the dangers entailed with the inexactitude dichotomization confers, especially as time moves on and shorthand imprecisions become increasingly less understood. T&SS specifically focus on four claimed cases in point, all of which imply an opposition of generative and usage-based approaches: (i) Cognitive vs. Generative, (ii) Usage-based vs. Generative, (iii) Dynamic vs. Static/Fixed, and (iv) Innatist vs. What?

We share the view with T&SS that when simple dichotomies are misunderstood as faithful representations of absolute (and often exaggerated) differences, or when it seems that different theoretical approaches use overlapping nomenclature that in fact means different things, then scientists have a responsibility to expose those misunderstandings in the interest of overall progress. In fact, various publications in the past two decades have made similar points (e.g., Zyzik, 2009; Slabakova et al., 2014, 2015; DeBot, 2015; Rothman and Slabakova, 2018; Rastelli, 2025). However, we find T&SS's specific approach problematic as corrections are overly skewed towards a single side; some imprecisions are simply swapped for others; and at times, it appears that T&SS have missed crucial developments in both generative and usage-based approaches in the last 20+ years or so, some of which have created much larger common ground between them than T&SS seem to be aware of or choose to consider. After reading their piece and wanting for the overall message to have the best chance to realize its due impact, we (henceforth XX&X)—two usage-based and one generative language researcher—felt it prudent to combine forces to offer a more balanced and nuanced approach. We do this in two ways.

First, for the "dangers" that T&SS list regarding each of the four dichotomies they discuss, we provide a synopsis of where we agree with T&SS and where we do not. Second, based on our discussion of where we see contemporary generative and usage-based approaches stand with regard to these four dichotomies, we offer an alternative set of statements that we consider more balanced and nuanced than the "corrective statements" initially offered in T&SS (2024).

Before we turn to these two tasks, it is fitting to summarize the essential differences between generative and usage-based approaches as we understand them so that the reader may be able to follow the context of our reasoning. While there are many important distinctions in various regards (terminological, practical, theoretical, …) that we do not have room to outline here (see Christiansen and Chater, 2016 for a comprehensive overview), the most fundamental difference between these two sets of cognitive theories relates to how linguistic representations are formed and ultimately represented. Does the acquisition of language obtain at the crossroads of language exposure and domain-general cognition alone or is some, perhaps a good deal, of language domain-specific in nature? In other words, the question is not whether there is a reality to grammar, for example, whether there is a D(determiner) P(hrase) as a category that defines human language. Rather, the debate is how the DP develops and comes to be instantiated in the grammar of humans. Was it derived on the basis of available input, conditioned by cognitive needs associated with such a category's formation alone, or is the DP a universal functional category that is part of a genetic linguistic endowment (Language Acquisition Device) that gets fine-tuned to the settings of a particular language grammar on the basis of available input? So while both approaches agree that there is a DP and that it is likely to work in a particular way at a mature state of representation given a particular language, usage-based approaches would contend that the DP is wholly derived (or, in usage-based parlance, emergent) while a generative perspective would say it is only partially so. To phrase it yet another way, while usage-based approaches assume that input and domain-general cognition are necessary and sufficient to arrive at the sophisticated grammars of humans, generative approaches question this sufficiency and postulate a gap filler in the form of domain-specific (language) cognition.

1.1 Cognitive vs. Generative

Tables 1-4 reproduce the exact wording of T&SS regarding the "dangers" associated with each dichotomy and the "corrective statements" they offer in the left and middle columns; in the right-hand columns, we submit our alternative statements describing each dichotomy not as a danger, but as a point of departure.

"Dangerous" dichotomy	**Corrective statements T&SS**	**Alternative statements**
Danger 1: The adoption of generative linguistic theory entails defining all aspects of language as governed by innate principles that are unique to language. Danger 2: Any approach characterized as 'cognitive' necessarily excludes the adoption of generative linguistic theory, which is therefore non-cognitive.	Generative linguistic theory is devoted to explaining only very particular aspects of language which are singled out as being fundamental to distinguishing language from other types of cognition. Much of importance is left open for other theories to explain. Approaches that are based on the language faculty assumption (in	Both generative and usage-based theories are 'cognitive' in the sense that both are devoted to explaining how language is acquired and processed in the human mind, and how language interacts with other aspects of cognition. Historically, generative and usage-based approaches

Danger 3: Explanation of language structure in approaches described as generative refers only to the application of mainstream Chomskyan theory as currently associated with the Minimalist Program.	one form or another) together with any other approach aiming to explain human knowledge and its development in the individual can all be labelled 'cognitive'. Generative theory, apart from evolving over time, has produced a number of coexisting, alternative approaches.	have adopted different starting positions: generative approaches sought to account for language as (partially) governed by language-specific cognitive principles that function autonomously, that is, are not reflexes of other aspects of cognition; usage-based approaches, on the other hand, has looked to account for language as governed by domain-general (that is, not language-specific) cognitive principles. Both, however, view language as inevitably and systematically intertwined with (all of) cognition. Generative approaches acknowledge the various ways in which language, other aspects of cognition and the social milieu impact on each other. The scope of what Universal Grammar covers—that which is claimed to be encoded in the genetic endowment of a language acquisition device (LAD)—has been refined/diminished over the past 60 years. However, advocates of generative approaches maintain that certain aspects of language require the existence of LAD as a gap filler between what is claimed is (un)learnable from input alone juxtaposed against resulting adult grammars. Both generative and usage-based approaches have evolved over time, and a

		number of coexisting, middle-of-the-road approaches exist within both. In acquisition research, in particular, approaches like the Tolerance Principle (Yang, 2016) utilize a combination of domain-specific and domain-general cognitive principles to account for how acquisition unfolds.

Table 1. The "cognitive vs. generative" dichotomy through the lenses of T&SS (2024) and XX&X

Regarding this dichotomy and the dangers that T&SS argue fall out from it, the three of us are not aware of anyone ever having claimed anything to that effect (at least not in peer-reviewed publications or other reputable outlets). Does anyone think that generative linguistic theory claims to account for all aspects of language as governed by innate principles; that "cognitive" is solely owned by non-generative theories, or that people only think of the Minimalist Program when they consider generative approaches?!

As we see it, the more fruitful way to conceptualize the generative vs. usage-based dichotomy is to see them as approaching the same question – how do we acquire language? – from different points of departure: generative approaches, from their beginnings until today, assume some degree of (linguistic) modularity, while usage-based approaches adopt a non-modular perspective. In the early days of SLA research, we think it's true that much of the research that was published from both points of departure made a rather conscious effort to see how far the envelope could be pushed: much of generative research presented empirical data that supported the idea that certain aspects of language could not have been acquired through exposure to input alone, while usage-based research presented empirical data showcasing just how much more than previously assumed could be argued to be acquirable from the input, provided access to domain-general cognition. For example, for studies that focused on L2-poverty-of-the-stimulus in the late 1990s and early 2000s, see Pérez-Leroux and Glass (1999), Dekydtspotter, Sprouse and Thyre (2000), and Rothman and Iverson (2008) adopting a generative perspective; usage-based alternatives accounts are offered for example in Stefanowitsch (2008), Golberg (2019), and Blything et al. (2025).

T&SS would like to "correct the record" for generative approaches as offering more than the Minimalist Program – ironically, this still implies an unbridgeable divide, a Venn diagram with no overlapping area between generative and usage-based approaches. But in fact, and for a while now, a variety of approaches have co-existed: some that subscribe to (i) *modularity of different kinds* and/or (ii) *modularity to different extents*, in the sense that they have shifted from an all-or-nothing type of reasoning to one that allows for a more nuanced model in which some aspects of language remain in Universal Grammar, while others are explicitly driven by domain-general cognition; and some are (iii) *neutral to the modularity debate altogether*, in the sense that the question of modularity is not in focus at all. Regarding (i) and (ii), to give but a few examples, we think of the Processability Theory (Pienemann and Lenzing, 2020), which is a modular theory of language in the sense that the posited default processing mechanisms are argued to be a part of Universal Grammar, while at the same time being a non-modular theory in the narrower sense of syntax not being autonomous from other linguistic domains, since semantics is seen to drive acquisition, and acquisition of syntax specifically. Or we can think of Yang's (2016) Tolerance Principle as an example of a model that adopts a more contemporary

perspective under which greater emphasis is placed on stochastic, algorithmic mechanisms of learning while rule-based constrained by the properties of Universal Grammar to account for developing and constraining productivity in first language acquisition (and in principle all instances of bilingualism, including later acquired additional languages, see Yang, 2018; Yang and Montrul, 2017). Regarding (iii), we point as one example to the Typological Primacy Model (TPM) (Rothman, 2011, 2015), which posits that transfer in the initial stages of L3 acquisition will come from the most structurally similar background language, regardless of the order and context of previous language acquisition. While it is certainly compatible with generative approaches, it could just as well be applied in the larger context of a usage-based approaches.

1.2 Usage-based vs. Generative

Dangers	**Corrective statements T&SS**	**Alternative statements**
Danger 1: There exist explanations of language learning that exclude usage as an important factor. Danger 2: Generative (linguistic) approaches are an example of the above.	All approaches to the acquisition of language assume that using a language is a necessary condition for development to take place.	All approaches to the acquisition of language assume that using a language is a necessary condition for development to take place. Generative and usage-based approaches differ in terms of how much can be acquired though language use and domain-general cognition, though: generative approaches assume that certain aspects cannot be learned from language use alone or otherwise fall out from domain-general cognition and thus have to be posited in Universal Grammar; usage-based approaches, in contrast, assume that all aspects of language are learnable from language use (in combination with domain-general cognition).

Table 2. The "usage-based vs. generative" dichotomy through the lenses of T&SS (2024) and XX&X

We again feel that the dangers T&SS posit here exist primarily in their minds. While it is possible that their mindset is shared by others, in our view, it does not represent what the majority of researchers in the field know to be true. Of course, usage matters for all theories! Simply stating that misses the point though: as specified above, what really delineates usage-based from generative approaches is the relative determinism usage must have and the role that domain-general cognition plays in explaining the whole of language acquisition development and outcomes. Usage-based approaches take the position that there are hard constraints from domain general cognition that drive acquisition of language and other skills, while to generativists, some of these constraints look to be specific to language. This furthermore implies that in usage-based approaches, language and cognition are bidirectionally intertwined: both shape the other (The Douglas Fir Group, 2016; Ellis, 2019); generative approaches, in contrast, adopt what can be viewed as a more unidirectional view whereby cognition shapes language, but not the other way around. That gives what is meant by "usage-based" a flavor in usage-based approaches that simply does not exist in generative approaches.

1.3 Dynamic vs. static/fixed

Dangers	Corrective statements T&SS	Alternative statements
Danger 1: Explaining dynamic language behavior requires the abandonment of fixed architecture.	Attempts to explain the dynamic character of language behavior can be based on very different approaches including those that treat dynamic and varying features of language as the outcome of an interaction with a more or less fixed cognitive architecture as it responds to the changing, dynamic nature of everyday experience.	Both generative and usage-based approaches can explain the dynamic character of language behavior. They differ somewhat in terms of how they do so: generative approaches posit that a relatively stable/fixed cognitive architecture interacts with dynamic and variable language experiences, while usage-based approaches see the cognitive architecture and language experience as mutually shaping one another.

Table 3. The "dynamic vs. static/fixed" dichotomy through the lenses of T&SS (2024) and XX&X

We largely refer to the previous section on this and wish T&SS had given a little more detail as to what they mean by a "more or less fixed cognitive architecture". Assuming that they are referring to linguistic representations, the three of us share the view that language acquisition is a process of representation building of an interlanguage (Selinker, 1972) and again acknowledge the different views on the extent to which we assume the language-cognition connections to be more or less mono- or bi-directional.

1.4 Innatist vs. … What?

We disagree with T&SS's characterization that "[t]he difference between 'innatist' and 'interactionist' theories is not whether social interaction plays or does not play a valuable role in language development but whether it is the most important factor". The main issue is not – and never has been – what the most important factor is. There has been wide agreement that both genetic and social factors are important, indeed *necessary conditions* for acquisition; the question is whether social factors, paired with general cognition, are *sufficient conditions* to account for acquisition, or whether (innate) language-specific cognition triggered by social factors needs to be recruited for a sufficient model of language acquisition. To that point specifically, we again believe it is useful and expository to point out that much generative research on heritage bilingualism, especially in recent years, has convincingly shown the need for and explanatory value of attributing significantly more weight to the impact of social factors in language acquisition (e.g., Kupisch and Rothman, 2018; Rodina et al., 2020; Hao and Chondrogianni, 2023: Kubota et al., 2025). Further, we encourage readers to explore recent progress in conceptualizing, measuring, and testing such factors by recruiting insights and techniques from complex systems and network science (e.g., Navarro and Rossi, 2024; Iniesta et al., 2024; Titone and Tiv, 2023).

Dangers	Corrective statements T&SS	Alternative statements
Danger 1: Approaches not labeled 'innatist' or 'nativist' exclude innate	Genetic factors underlie all explanations of language acquisition whether or not they are explicitly	Both generative and usage-based approaches assume humans come biologically endowed with

factors in their explanation of acquisition. Danger 2: 'Innatist' approaches ignore or undervalue the importance of social interaction.	referred to. The difference between nativist/innatist and other approaches is the precise nature of that genetic component and whether or not it is shared by all types of learning. The difference between 'innatist' and 'interactionist' theories is not whether social interaction plays or does not play a valuable role in language development but whether it is the most important factor. 'Innatists' would deny that.	a cognitive apparatus that is ready to learn all kinds of things. Generative approaches posit that part of the cognitive machinery is exclusively devoted to language learning, while usage-based approaches assume that there is no need to claim language-specific cognition. Generative approaches emphasize the role of a genetic endowment for language acquisition and processing, while usage-based approaches give more emphasis to the role of social interaction in shaping language development.

Table 4. The "innate vs. … what?" dichotomy through the lenses of T&SS (2024) and XX&X

2. Dichotomies as points of departure

We hope that our discussion of the dichotomies makes it quite clear that they are far from "dangerous". Rather, they can be points for productive exchange and collaboration that not only build growing consensus but also give finesse to points of disagreement – which plays a crucial role in scientific progress, in (second) language acquisition as in any other scientific field. Dichotomization ultimately reflects a human problem-solving strategy: we approach complex things, events, and ideas by partitioning them into pairs. Ellis and Larsen-Freeman (2006), in their *Applied Linguistics* edited special issue on the emergence of language, provide an extended list of the dualisms pervasive in language research; see Figure 1.

Figure 1. Complementary pairs in language research (Ellis and Larsen-Freeman, 2006: 580)

But these pairs are emergent, and they are complementary, more mutually dependent than mutually exclusive. They drive change, with the action taking place in between in complex coordination dynamics. Throughout history, many have recognized that truth may well lie in between such opposites:

> Failure to accept this perspective leads to researchers picking sides in debates such as whether it is genes or the environment which can be used to explain development... genes and environment are locked in a complex chain of steps over time and that they cannot be conceived of as variables that make mutually independent contributions to development (Ellis and Larsen-Freeman, 2006: 581).

We are thus in full agreement with T&SS when they conclude by admonishing language acquisition researchers against extreme academic modularity and advise us that the days of compartmentalized research passed long ago in the hard sciences. It is exactly in that spirit that the three of us put forth our response here.

References

Blything L, Theakston A, Brandt S and Ambridge B (2025) Easy as ABC. Functional-pragmatic factors explain “binding-principle” constraints on pronoun interpretation: Evidence from nine pre-registered rating studies. *Cognitive Psychology* 158: 101733. DOI: 10.1016/j.cogpsych.2025.101733.

De Bot K (2015) Moving where? A reaction to Slabakova et al. (2014). *Applied Linguistics* 36: 261–264.

Dekydtspotter L, Sprouse RA and Thyre R (2000) The Interpretation of Quantification at a Distance in English-French Interlanguage: Domain Specificity and Second-Language Acquisition. *Language Acquisition* 8(4): 265–320. DOI: 10.1207/S15327817LA0804_01.

Douglas Fir Group (Atkinson D, Byrnes H, Doran M, Duff P, Ellis NC, Hall JK, Johnson K, Lantolf J, Larsen–Freeman D, Negueruela E, Norton B, Ortega L, Schumann J, Swain M, and Tarone E) (2016) A transdisciplinary framework for SLA in a multilingual world. *Modern Language Journal* 100: 19-47. DOI: 10.1111/modl.12301.

Goldberg, AE (2019) *Explain me this: Creativity, competition, and the partial productivity of constructions*. Princeton University Press.

Ellis NC (2019) Essentials of a theory of language cognition. *The Modern Language Journal* 103: 39-60. DOI: 10.1111/modl.12532.

Ellis NC and Larsen-Freeman D (2006) Language emergence: Implications for Applied Linguistics. *Applied Linguistics* 27(4) whole issue. DOI: 10.1093/applin/aml028.

Hao J and Chondrogianni V (2023) Comprehension and production of non-canonical word orders in Mandarin-speaking child heritage speakers. *Linguistic Approaches to Bilingualism* 13(4): 468-499. DOI: 10.1075/lab.20096.hao.

Iniesta A, Yang M, Beatty-Martínez AL, Itzhak I, Gullifer JW and Titone D (2024) Leveraging social network data to ground multilingual background measures: The case of general and socially based language entropy. *Canadian Journal of Experimental Psychology / Revue canadienne de psychologie expérimentale*. Advance online publication. DOI: 10.1037/cep0000352.

Kubota M, Goto Y, Kurokawa S, Matsuoka Y, Otani M and Rothman J (2025) Different variables hold varying significance from childhood to adolescence: Exploring individual differences in grammar development of Japanese heritage speakers. *Studies in Second Language Acquisition*: 1-32. DOI: 10.1017/S0272263124000615.

Kupisch T and Rothman J (2018) Terminology matters! Why difference is not incompleteness and how early child bilinguals are heritage speakers. *International Journal of Bilingualism* 22(5): 564-582. DOI: 10.1177/136700691665435.

Navarro E and Rossi E (2024) Using latent variable analysis to capture individual differences in bilingual language experience. *Bilingualism: Language and Cognition* 27(4): 700–714. DOI: 10.1017/S1366728923000846.

Pérez-Leroux AT and Glass WR (1999) Null anaphora in Spanish second language acquisition: probabilistic versus generative approaches. *Second Language Research* 15(2): 220-249. DOI: 10.1191/026765899676722648.

Pienemann M and Lenzing A (2020) Processability Theory. In: VanPatten B, Keating GD and Wulff S (eds) *Theories in Second Language Acquisition*. 3rd ed. New York: Routledge, pp. 162-191.

Rodina Y, Kupisch T, Meir N, Mitrofanova N, Urek O and Westergaard M (2020) Internal and external factors in heritage language acquisition: Evidence from heritage Russian in Israel, Germany, Norway, Latvia and the United Kingdom. *Frontiers in Education* 5: 20. DOI: 10.3389/feduc.2020.00020.

Rothman J (2011) L3 syntactic transfer selectivity and typological determinacy: The typological primacy model. *Second Language Research* 27(1): 107-127. DOI: 10.1177/0267658310386439.

Rothman, J (2015) Linguistic and cognitive motivations for the Typological Primacy Model (TPM) of third language (L3) transfer: Timing of acquisition and proficiency considered. *Bilingualism: Language and Cognition* 18(2): 179-190. DOI: 10.1017/S136672891300059X.

Rothman, J and Iverson M (2008) Poverty-of-the-stimulus and SLA epistemology: Considering L2 knowledge of aspectual phrasal semantics. *Language Acquisition* 15(4): 270-314. DOI: 10.1080/10489220802352206.Rothman J and Slabakova R (2018) The generative approach

to SLA and its place in modern second language studies. *Studies in Second Langage Acquisition* 40(2): 417-422. DOI: 10.1017/S0272263117000134.

Selinker L (1972) Interlanguage. *International Review of Applied Linguistis in Languge Teaching* 10(1-4): 209-232. DOI: 10.1515/iral.1972.10.1-4.209.

Slabakova R, Leal T and Liskin-Gasparro J (2014) We have moved on: Current concepts and positions in generative SLA. *Applied Linguistics 35*: 601–606. DOI: 10.1093/applin/amu027.

Slabakova R, Leal T and Liskin-Gasparro J (2015) Rumors of UG's demise have been greatly exaggerated. *Applied Linguistics* 36: 265–269. DOI: 10.1093/applin/amv007.

Stefanowitsch, A (2008) Negative entrenchment: A usage-based approach to negative evidence. *Cognitive Linguistics* 19(3): 513-531. DOI: 10.1515/COGL.2008.020.

Titone, DA and Tiv M (2023) Rethinking multilingual experience through a Systems Framework of Bilingualism. *Bilingualism: Language and Cognition* 26(1): 1–16. DOI: 10.1017/S1366728921001127.

Truscott J and Sharwood Smith M (2024) Dangerous dichotomies and misunderstandings in L2 research. *Second Language Research*, online first. DOI: 10.1177/02676583241276433.

Yang C (2016) *The price of linguistic productivity: How children learn to break the rules of language*. MIT Press.

Yang C (2018) Some consequences of the Tolerance Principle. *Linguistic Approaches to Bilingualism* 8(6): 797-809. Doi: 10.1075/lab.00022.yan.

Yang C and Montrul S (2017) Learning datives: The Tolerance Principle in monolingual and bilingual acquisition. *Second Language Research* 33(1): 119-144. DOI: 10.1177/0267658316673686.

Zyzik E (2009) The role of input revisited: Nativist vs. usage-based models. *L2 Journal* 1: 42-61.