

In short, this volume explores what core components the minimalist machinery should consist of, such as Merge, labeling, and interface conditions, and investigates how it operates, and also presents some divergences. These areas of difficulty, such as how to define phase uniformly and whether phase, PIC, and labeling are necessary in NS, point to future topics.

REFERENCES

- CHOMSKY, NOAM. 2013. Problems of projection. *Lingua* 130.33–49. DOI: 10.1016/j.lingua.2012.12.003.
- CHOMSKY, NOAM. 2015. Problems of projection: Extension. *Structures, strategies and beyond: Studies in honour of Adriana Belletti*, ed. by Elisa Di Domenico, Cornelia Hamann, and Simona Matteini, 3–16. Philadelphia: John Benjamins.
- GREENBERG, JOSEPH H. 1963. Some universals of grammar with particular reference to the order of meaningful elements. *Universals of language*, ed. by Joseph H. Greenberg, 58–90. Cambridge, MA: MIT Press.
- MAO, TIAOYUAN, and FANJUN MENG. 2016. The cartographic project of the generative enterprise—An interview with Guglielmo Cinque. *Language and Linguistics* 17.916–36. DOI: 10.1177/1606822X16659002.
- WILLIAMS, EDWIN. 1982. Another argument that passive is transformational. *Linguistic Inquiry* 13.160–63. Online: <http://www.jstor.org/stable/4178269>.

[tiaomarc@mit.edu] (Mao)

[daimanchun@bfsu.edu.cn] (Dai)

The present perfective paradox across languages. By ASTRID DE WIT. (Oxford studies of time in language & thought.) New York: Oxford University Press, 2017. Pp. 221. ISBN 9780198759539. \$90 (Hb).

Reviewed by DANIEL ALTSHULER, *Hampshire College* and
*University of Massachusetts, Amherst**

Reichenbach (1947:§51) proposed that English tenses encode three temporal coordinates: SPEECH TIME (S), EVENT TIME (E), and REFERENCE TIME (R). For simple tenses, E and R are equated; present tense equates S with R, yielding 1.

$$(1) E = R = S$$

Research in the last thirty years has explored how these coordinates factor into the composition of verb phrases, viewpoint aspect, and tense. According to one influential view, outlined in 2–4 below, tense contributes a relation between R and S, while E and R are related by ASPECT; the E-R relation is independent of tense (Kamp & Rohrer 1983; see also Klein 1994, Smith 1997, Kratzer 1998).¹

(2) Verb phrase encodes E.

(3) Aspect combines with 2 to relate E and R as follows: if perfective: $E \subseteq R$; if progressive: $R \subseteq E$; if perfect: $E < R$.

(4) Present tense combines with 2 and 3 to relate R and S as follows: $R = S$.

Applying 2 to 5, the verb phrase *sees* encodes the seeing event. Assuming that 5 exemplifies the imperfective aspect, 3 requires the seeing to temporally contain R, which, given 4, is S. In this way we correctly predict that the seeing held throughout S.

(5) Ava sees the ball.

* Thanks to Susanna Melkonian-Altshuler, Andries Coetzee, Laura Michaelis, and Lauren Squires for feedback on previous versions of this review. The usual disclaimers apply.

¹ See Bary 2009 and Altshuler 2012 for an overview of various ways that 2–4 have been implemented in a formal semantic framework; see Altshuler 2016:§6 for a critical assessment of 2–4 and Kamp 2013 on the emergence of 2–4 from Reichenbach's theory.

Astrid De Wit's book refutes the view that the E-R relation is independent of tense in English. It retains the view in 1 that the English present tense equates all three coordinates, with one crucial caveat: the 'E = R' condition is claimed to be PERFECTIVE.² That is, in English, PRESENTNESS and PERFECTIVITY are two sides of the same coin. While there is precedence for seeing tense as being ASPECTUAL (e.g. de Swart 1998, Michaelis 2011), the view that the English present is PERFECTIVE is a striking hypothesis.

This hypothesis is tailored to account for the temporal profile of performatives, as in 6 below.³ Applied to 6, it correctly predicts that the described apology is instantiated throughout the speech time. It also makes the correct prediction for present statives like in 5 above: the described perception is correctly predicted to hold throughout the speech time.⁴

(6) I apologize.

One question that arises is why, in many languages, the combination of perfective morphology with a stative verb yields an inchoative reading (e.g. 'learn' is the perfective counterpart of 'know' in Russian), but not in English. In other words, if the English present is perfective, why doesn't 5 mean something like 'Ava has noticed the ball'? DW does not address this question, but let us assume that the perfective in English is unique. After all, perfectives differ crosslinguistically (Altshuler 2014).⁵ With this assumption in mind, let us ask how 1 applies to 7 and 8.

(7) the simple present in futurates (*Ava leaves tomorrow*), conditionals (*If Ava passes the ball, we win*), demonstrative commentaries (*Look, I take this card*), play-by-play (*Ava passes the ball*), and historical narratives (*Yesterday I walked in. Ava says to me...*)

(8) the present habitual, progressive, and perfect

Let us also ask whether and how 1 can be parametrized to account for the meaning of the present tense in other languages, which have different means to express 7 and 8.

DW's book tackles both of these questions head on. DW argues that 1 is compatible with the interpretations in 7 in English, while the interpretations in 8 are the by-product of resolving the PRESENT PERFECTIVE PARADOX (PPP): the observation that it is 'quite difficult to align entire events (i.e., dynamic situations), which have a point of inception and termination and a specific duration, with the time of speaking' (3).⁶ DW then shows how her analysis of the English present tense can be extended to French, Sranan, and Slavic languages. In each chapter, diachronic data is provided to argue that the conclusions reached shed light on language change (and vice versa). Moreover, insight from the formal semantics literature is integrated into a cognitive-semantic framework.

Ch. 1 is an introduction to the aims of the book and its structure. Ch. 2 outlines the nuts and bolts of previous research on tense and aspect, including an exposition of 1–4 above. Ch. 3 discusses the PPP. The dialectic of the book is clear from the outset: if we grant the controversial hypothesis that the English present tense is PERFECTIVE, the benefits are far reaching. In particular, one can maintain a uniform meaning for the present tense, while also explaining how the particular temporal makeup of a given language (its 'genius'⁷) affects the range of interpretations of the present tense in that language.

Ch. 4 argues that in order to account for the interpretations in 7, the present tense not only is perfective, but also has a modal component, which 'indicates that a situation constitutes a non-contingent, fully identifiable part of the speaker's immediate reality' (87). DW does a nice job of show-

² Although DW cites Reichenbach, she uses Langacker's (2001) terminology instead. As far as I can see, my use of Reichenbach's terminology is consistent with the views expressed by DW.

³ See Bary 2012 for discussion of why we expect performatives to be wedded to the present perfective.

⁴ The fact that Ava may have seen the ball before and after the speech time is not excluded (see e.g. Dowty's 1986 discussion of statives).

⁵ Also note that the 'E = R' condition proposed for English differs from the 'E \subseteq R' in 3. Perhaps this difference can factor into explaining the presence of an inchoative reading (or lack thereof).

⁶ DW cites Malchukov (2009) for the term *present perfective paradox*, though, as she notes, its discussion dates back to (at least) Aristotle.

⁷ This is a term used by Tony Woodbury; <https://www.youtube.com/watch?v=CVAjw75iDv4>.

ing how the first part of the modal component, noncontingency, is helpful in distinguishing simple present futurates (e.g. *I leave tomorrow*) from their progressive counterparts (e.g. *I am leaving tomorrow*). The other part of the modal component ('fully identifiable part of the speaker's immediate reality') is less helpful, however. DW uses Langacker's (2001) diagrams of VIRTUAL PLANES to elucidate it, as it pertains to historical and conditional uses of the present tense. Virtual planes are representations of possible worlds (or situations) that, in case the present tense is used, 'are completely known at the time of speaking' (76). The problem is that such virtual planes also seem to be invoked with the past tense. If I utter: 'I was born in Moscow on Lenin Prospect', I describe a possible world (or situation) that is completely known at the time of speaking, and it is an identifiable part of my immediate reality (it concerns my very existence).

Clearly, more needs to be said about how virtual planes are helpful in characterizing the necessary and sufficient conditions of present-tense use in modal contexts. Looking at present-under-past indirect speech reports may be helpful in this respect. Imagine the following context from Altshuler & Schwarzschild 2013: I see my friend Sylvia in the mall and ask where her friend Mary is. She replies: 'Mary is at home today'. Later that day, when I'm at the beach, Peter asks me: 'Where's Mary?'. I reply as in 9.

(9) Sylvia said that **Mary is at home**.

According to 9, if Sylvia's utterance at the mall was true, then (i) Mary was at home at the time that Sylvia locates herself, and (ii) Mary is at home at the speech time, which is not part of Sylvia's original thought/speech act. It is not clear how this interpretation, called DOUBLE ACCESS (Enç 1987), would be captured by DW's analysis. It would likely involve a virtual plane. But how exactly would that work, given that the present tense in 9 exemplifies both past and present reference?

The rest of Ch. 4 addresses the present habitual, progressive, and perfect. The proposed analysis relies on the observation that nonperformative eventives in the simple present cannot have an episodic interpretation due to the PPP. In other words, because the English present is perfective (characterized as 1), a paradox emerges for nonperformative eventives. This paradox is resolved in one of two ways, according to DW. The first strategy is to assign a distinct, temporally nonpresent interpretation. In English, this strategy amounts to the habitual interpretation, which is also characterized in terms of a virtual plane. The second strategy (called 'type shifting') is to add the progressive *-ing* or the perfect *have*, resulting in a stative construction that is on a par with 5 (Michaelis 2011). The two strategies bring to mind Moens and Steedman's (1988) classic work on coercion, leading one to wonder what the resolution of the PPP amounts to in terms of composition (de Swart 1998, Michaelis 2004, Bary 2009) and processing (Brennan & Pykkänen 2008, Bott 2010, Paczynski et al. 2014).

Ch. 5 explores the present tense in French. As is well known, in French (as well as in German and Dutch), nonperformative eventives in the simple present can receive an episodic interpretation. To account for this observation, DW proposes that the French present tense is ambiguous between being perfective and imperfective. Given that the present tense can be imperfective, PPP does not arise.⁸ A direct consequence of this, according to DW, is that the present progressive in French is 'less needed and more restricted in use' (111).

Ch. 6 argues that there is a null present marker in Sranan and shows that Sranan uses the aspectual marker *e* to get the progressive or habitual interpretation, which is otherwise absent. This motivates DW to analyze the null present in Sranan as perfective; the language employs a strategy for dealing with the PPP (adding the aspectual marker *e*) that is analogous to English (adding *-ing* and *have*). The most intriguing claim in the chapter is that Sranan also employs a strategy for dealing with the PPP that is not found in English: the null present can be used to anchor past

⁸ Note that this analysis does not explain why the PPP does not arise with the French present that is perfective. Perhaps what DW has in mind is that the French present tense is underspecified with respect to aspect (i.e. rather than being AMBIGUOUS, it is compatible with either a perfective or an imperfective interpretation). If one adopts the 'E = R' condition for the perfective (as DW does for English), and 'R ⊆ E' for the imperfective, then an underspecification analysis for the French present tense would be possible.

events in nonnarrative contexts.⁹ While more work is necessary to show how this interpretation is consistent with a present perfective meaning, the takeaway message is that the unique temporal makeup of Sranan explains why this language has a way of dealing with the PPP that is distinct from English.

Ch. 7 discusses temporal reference in Slavic languages¹⁰ and makes two hypotheses. The first is controversial: Slavic has a present tense. The second is not controversial: Slavic aspect is realized lexically or through verbal suffixation (cf. 3); tense does not have an aspectual component (cf. 4). Quite ingeniously, DW uses the two hypotheses to explain why the alleged Slavic present gives rise to interpretations (e.g. contingent future) not found in the other languages considered. In particular, Slavic employs strategies for resolving the PPP that are not available in those other languages because the tense/aspect system is so different.

The proposed analysis of Slavic gives rise to the following question: Why do Slavic languages use the imperfective for performative utterances? The traditional answer for Russian, for example, is to say that it has a nonpast tense (Vinogradov 1947). When nonpast combines with the perfective, it results in future reference. Since performatives must have present reference, the perfective cannot be used; the imperfective is used instead. Note, however, that this is not a possible response for DW, who holds that Slavic has a PRESENT tense; future reference with the present perfective, for DW, is a way of resolving the PPP. But why would the PPP need to be resolved in the case of performatives? As we saw at the outset of this review (ex. 6), performatives are the poster child for the present perfective.

DW is aware of this problem, and in Ch. 8 she outlines some future steps aimed at addressing it. She also discusses ways of extending her research to Mandarin Chinese, Tuwuli, Pichi, and Japanese. This typological focus demonstrates the far-reaching consequences of the book. It is recommended for anyone interested in temporality and crosslinguistic semantics.

REFERENCES

- ALTSHULER, DANIEL. 2012. Aspectual meaning meets discourse coherence: A look at the Russian imperfective. *Journal of Semantics* 29.39–108. DOI: 10.1093/jos/ffr008.
- ALTSHULER, DANIEL. 2014. A typology of partitive aspectual operators. *Natural Language and Linguistic Theory* 32.735–75. DOI: 10.1007/s11049-014-9232-1.
- ALTSHULER, DANIEL. 2016. *Events, states and times: An essay of narrative discourse in English*. Berlin: De Gruyter.
- ALTSHULER, DANIEL, and ROGER SCHWARZSCHILD. 2013. Correlating cessation with double access. *Proceedings of the 19th Amsterdam Colloquium*, 43–50.
- BARY, CORIEN. 2009. *Aspect in Ancient Greek: A semantic analysis of the aorist and imperfective*. Nijmegen: Radboud University dissertation.
- BARY, CORIEN. 2012. The Ancient Greek tragic aorist revisited. *Glotta* 88.31–53. Online: <http://www.jstor.org/stable/41756394>.
- BOTT, OLIVER. 2010. *The processing of events*. Amsterdam: John Benjamins.
- BRENNAN, JONATHAN, and LIINA PYLKKÄNEN. 2008. Processing events: Behavioral and neuromagnetic correlates of aspectual coercion. *Brain and Language* 106.132–43. DOI: 10.1016/j.bandl.2008.04.003.
- DE SWART, HENRIETTE. 1998. Aspect shift and coercion. *Natural Language and Linguistic Theory* 16.347–85. DOI: 10.1023/A:1005916004600.
- DICKEY, STEPHEN. 2002. *Parameters of Slavic aspect: A cognitive approach*. Stanford, CA: CSLI Publications.
- DOWTY, DAVID. 1986. The effects of aspectual class on the temporal structure of discourse: Semantics or pragmatics? *Linguistics and Philosophy* 9.37–61. Online: <http://www.jstor.org/stable/25001231>.
- ENÇ, MÜRVEY. 1987. Anchoring conditions for tense. *Linguistic Inquiry* 18.633–57. Online: <http://www.jstor.org/stable/4178564>.
- KAMP, HANS. 2013. Deixis in discourse: Reichenbach on temporal reference. *Meaning and the dynamics of interpretation: Selected papers of Hans Kamp*, ed. by Klaus von Heusinger and Alice ter Meulen, 105–9. Leiden: Brill.

⁹ This suggests that the null present is not being interpreted as a historical present (cf. English).

¹⁰ DW cites Dickey 2002 for many of the key generalizations.

- KAMP, HANS, and CHRISTIAN ROHRER. 1983. Tense in texts. *Meaning, use, and interpretation of language*, ed. by Rainer Bäuerle, Christoph Schwarze, and Arnim von Stechow, 250–69. Berlin: De Gruyter.
- KLEIN, WOLFGANG. 1994. *Time in language*. London: Routledge.
- KRATZER, ANGELIKA. 1998. More structural analogies between pronouns and tenses. *Proceedings of Semantics and Linguistic Theory (SALT)* 8.92–110. DOI: 10.3765/salt.v8i0.2808.
- LANGACKER, RONALD W. 2001. The English present tense. *English Language and Linguistics* 5.251–72. DOI: 10.1017/S1360674301000235.
- MALCHUKOV, ANDREJ. 2009. Incompatible categories: Resolving the ‘present perfective paradox’. *Cross-linguistic semantics of tense, aspect, and modality*, ed. by Lotte Hogeweg, Helen de Hoop, and Andrej Malchukov, 13–31. Amsterdam: John Benjamins.
- MICHAELIS, LAURA A. 2004. Type shifting in construction grammar: An integrated approach to aspectual coercion. *Cognitive Linguistics* 15.1–67. DOI: 10.1515/cogl.2004.001.
- MICHAELIS, LAURA A. 2011. Stative by construction. *Linguistics* 49.1359–99. DOI: 10.1515/ling.2011.038.
- MOENS, MARC, and MARK STEEDMAN. 1988. Temporal ontology and temporal reference. *Computational Linguistics* 14.15–29. Online: <https://dl.acm.org/citation.cfm?id=55058>.
- PACZYNSKI, MARTIN; RAY JACKENDOFF; and GINA KUPERBERG. 2014. When events change their nature: The neurocognitive mechanisms underlying aspectual coercion. *Journal of Cognitive Neuroscience* 26. 1905–17. DOI: 10.1162/jocn_a_00638.
- REICHENBACH, HANS. 1947. *Elements of symbolic logic*. New York: Macmillan.
- SMITH, CARLOTA. 1997. *The parameter of aspect*. Dordrecht: Kluwer.
- VINOGRADOV, VUIDO. 1947. *Russkij jazyk (grammatičeskoe učenie o slove)*. Moscow: Učpedgiz.

[dgaCS@hampshire.edu]

Morphological length and prosodically defective morphemes. By EVA ZIMMERMANN. Oxford: Oxford University Press, 2017. Pp. xii, 350. ISBN 9780198747321. \$99 (Hb).

Reviewed by ANTHI REVITHIADOU, *Aristotle University of Thessaloniki*

EVA ZIMMERMANN offers an elegant and meticulous monograph on MORPHOLOGICAL LENGTH-MANIPULATION (MLM) phenomena, that is, length alternations bound to morphological contexts. The work is based on the general claim that all nonconcatenative processes—additive and subtractive alike—arise from an ‘enriched notion of affix’ (1) that involves prosodic nodes as primitives. The main argumentation in the book aims at establishing that all morphology is additive, a claim that is empirically supported by an impressively broad typological survey that includes representative data sets for attested morphological length-manipulating patterns culled from sixty-two languages. Furthermore, the author argues that MLM operations are best analyzed in a theoretical framework named PROSODICALLY DEFECTIVE MORPHEMES (PDM), which, in addition to morphemic prosodic nodes, includes a rather rich representational apparatus, a constraint-based computational component that regulates the integration of such prosodic nodes into larger structures, and a handful of conditions that impose restrictions on GEN. PDM not only succeeds in predicting all attested patterns and systematically excluding imaginable yet unattested ones, but also circumvents several problems encountered by alternative accounts. More importantly, it makes some insightful predictions about, for instance, the possible interaction and coexistence of additive and subtractive operations within the same language.

Z sets an ambitious goal: to show that ‘all kinds of subtractive MLM can be derived if one takes into account the full range of prosodic nodes and their possible (defective) integration into a base’ (34). This way she challenges the shared assumption that subtractive phenomena have a processual character and delivers a model that is consistent with an ITEM-AND-ARRANGEMENT (Hockett 1954) morphology framework and the basic tenets of its more sophisticated version, namely DISTRIBUTED MORPHOLOGY (Halle & Marantz 1993). The core idea, defended throughout the book, is that nonconcatenative morphology (i.e. addition and subtraction) is epiphenomenal