

What is deaccentuation?

Statement and motivation. Deaccentuation constitutes a deviation from the expected prominence pattern in order to mark a constituent as given. In *You meet heroes across a COUNTER, and they're on both SIDES of that counter* (Ronald Reagan 1981) the second occurrence of *counter* is deaccented and as a consequence the main prominence falls on *SIDES*. Deaccentuation can be triggered by purely phonological identity: *He's so sharp, he's even CALLED Sharp* (Cutler and Isard 1980), where the two instances of /ʃaɪp/ differ in meaning, or *Greek divers have found the wreck of the British liner BRITANNIC, sister ship of the TITANIC*, where /tæɪnɪk/ has no meaning at all (Ladd 1996). Such intrusions of the phonological seem surprising under semantic approaches to deaccentuation (cf. Rooth 1992, Schwarzschild 1999, Wagner 2006, Rochemont 2016, i.a.). Cases where phonologically motivated deaccentuation appears obligatory (the so-called WILLIAMS EFFECT, Williams 1981, Wagner & McCurdy 2010) as in *#SALLY invited JOE, and SALLY was invited by JOE* appear to require phonological constraints in addition to semantic mechanisms. We debate two perspectives that put these apparent quirks at the center of our understanding of deaccentuation, but are otherwise radically different.

Perspective A: Deaccentuation, and in fact all prosodic focus marking, is metalinguistic. Artstein (2004) showed that Alternative Semantics (Rooth 1992) can handle phonological deaccentuation (/ʃaɪp/, /tæɪnɪk/) if alternative sets *can* be metalinguistic. What the Williams Effect shows is that the alternatives involved in prosodic focus marking *must* be metalinguistic. Rather than meanings, they are linguistic expressions with a phonological shape.

What about semantically motivated cases of prosodic focus? Alternatives represent contextually relevant linguistic choices which can be motivated either pragmatically (e.g., *[[red]]* vs. *[[blue]]*) or formally (/bɪ/ vs. /taɪ/). The same mechanism is at play, but different inferences ensue. This explains why semantic and phonological cases show identical constraints. It is *BE-all*, *END-all* but *carry ON*, *carry ON!* since deaccenting requires a contrast to the accented. And yet Winston Churchill said '*It must be ALL for ALL*', although *be* and *for* are distinct. But in the intended reading, *[be all]* is not a constituent and cannot be an antecedent. Experiments show this also holds in purely phonological deaccentuation in acronyms, numbers, and sentences with homophones. The alternatives of non-prosodic focus, e.g., association with *only*, are not necessarily structural, which explains why the relation between *only* and prosodic focus is tenuous.

Perspective B: Deaccentuation is postlexical phonology. A radically different view sees deaccentuation as a postlexical phonological process of (some dialects of) English derived from three ranked constraints (Shapiro & Anttila 2020):

1. Nuclear Stress falls on the rightmost content word in the most deeply embedded constituent (SPE, Liberman and Prince 1977, Cinque 1993)
 - 1.1 except when there is a stressed homophonous copy in the nearby preceding context (deaccentuation)
 - 1.1.1 except that a focused constituent must contain the Nuclear Stress (focus).

Empirically, deaccentuation is defined as having less stress than predicted by default, e.g., by the Nuclear Stress Rule. The phonological hypothesis is simple and testable; for preliminary statistical evidence from the inaugural addresses of six U.S. presidents, see Shapiro and Anttila 2020. Processing matters too: given two nearby copies, e.g., *counter ... counter*, deaccentuation targets the second over the first because it refers to real speech, not planned speech. Inter-copy distance also matters, presumably reflecting memory decay. The upshot is that deaccentuation is primarily mechanical and refers to phonology, syntax, and processing. The connection to meaning is secondary and pragmatic, except for focus which remains an indispensable part of the story.

Relevance for linguistic theory. Both perspectives challenge the theoretical status quo on deaccentuation. Perspective A relates to the debate about the nature of alternatives, e.g., the alternatives involved in scalar implicatures have been argued to be structural (Katzir 2007), and also to the debate about the relation between *only* and prosody (Beaver & Clark 2008; Sudhoff 2010). Perspective B questions whether semantics is involved at all and instead interprets deaccentuation as a phonological process of English while allowing for effects of focus and pragmatics. Both hypotheses lend themselves to experimental and corpus-based testing (Wagner 2012, Shapiro and Anttila 2020). Here we have an unusual phenomenon where we do not even know which kind of doctor to call: a semanticist or a phonologist. Processing theories offer a third potential solution: Accessibility of production motor plans could explain phonological deaccentuation and accessibility of meanings semantic deaccentuation (see Arnold & Watson 2015 for a review). However, empirical evidence shows processing accounts to be insufficient: deaccentuation is sensitive to structural variables and is subject to cross-linguistic variation (Ladd 1996) in ways that processing alone cannot explain.

- Arnold, J. and Watson, D. (2015). Synthesising meaning and processing approaches to prosody: Performance matters. *Language, Cognition and Neuroscience*, 30(1-2), 88-102.
- Artstein, R. (2004). Focus below the word level. *Natural Language Semantics*, 12(1), 1–22.
- Beaver, D. I. and Clark, B. Z. (2008). *Sense and sensitivity: How focus determines meaning*. Wiley-Blackwell, Oxford.
- Cinque, G. (1993). A null theory of phrase and compound stress. *Linguistic Inquiry*, 24(2), 239–297.
- Cutler, A. and Isard, S. (1980). The production of prosody. In Butterworth, B., editor, *Language Production*, Vol. 1, pp. 245–269. Academic Press, London.
- Katzir, R. (2007). Structurally-defined alternatives. *Linguistics and Philosophy*, 30(6), 669–690.
- Ladd, D. R. (1996). *Intonational Phonology*. Cambridge University Press, Cambridge.
- Lieberman, M. Y. and Prince, A. S. (1977). On stress and linguistic rhythm. *Linguistic Inquiry* 8(2), 249–336.
- Rochemont, M. (2016). Givenness. In Féry, C. and Ishihara, S. (Eds.), *The Oxford Handbook of Information Structure*. Oxford University Press, Oxford.
- Rooth, M. (1992). A theory of focus interpretation. *Natural Language Semantics*, 1(1).
- Schwarzschild, R. (1999). Givenness, AVOIDF and other constraints on the placement of accent. *Natural Language Semantics* 7(2), 141–177.
- Shapiro, N. T. and Anttila, A. (2020). Deaccentuation: Semantics or phonology? Talk presented at AMP2020, UC Santa Cruz.
- Sudhoff, S. (2010). *Focus particles in German: Syntax, prosody, and information structure*, Vol. 151. John Benjamins, Amsterdam.
- Wagner, M. (2006). Association by movement. Evidence from NPI-licensing. *Natural Language Semantics*, 14(4), 297–324.
- Wagner, M. (2012). A givenness illusion. *Language and Cognitive Processes*, 27(10), 1433–1458.
- Wagner, M. and McCurdy, K. (2010). Poetic rhyme reflects cross-linguistic differences in the grammar of information structure. *Cognition* 117(2), 166–175.
- Williams, E. (1981). Remarks on stress and anaphora. *Journal of Linguistic Research*, 1(3), 1–16.