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Dialect Syntax in Construction Grammar: Theoretical Benefits of a Constructionist Approach to Double Modals in English

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This squib focuses on two main issues. Firstly, it examines the ways in which constructionist approaches to language can bring about an improved theoretical understanding of Double Modals (DMs) in dialects of English. DMs have proved to be a long-lasting, notorious puzzle in formal linguistics, and have not received any general solution today, with much analysis devoted to their constituent structure and their postulated layers of derivation, especially in generative models of language. Usage-based strands of Construction Grammar (CxG) appear to naturally overcome such problems, while conveying a more cognitively and socially realistic picture of such dialect variants. Secondly, and more importantly, we argue that such an improved, constructional understanding of DMs can also contribute to advances in the modeling of dialect syntax in CxG, both theoretically and methodologically. In particular, DMs constitute an interesting case of relatively rare and restricted syntactic constructions in the dialects they appear in, and they are likely to exhibit different rates of entrenchment

and network schematicity cross-dialectally. Moreover, the empirical challenges surrounding the measurement of DM usage invite us to refine the methodological concept of triangulation, by sketching a two-step approach with a data-driven study of new types of corpora on the one hand, and a hypothesis-driven experimental account of acceptability in relevant geographical locations on the other.

Keywords: Construction Grammar; dialectology; double modals; syntactic variation; American English

The study of dialect variation in constructionist theories of language is an exciting area of research, although still very much in its youth. The intersection of cognitive linguistics and sociolinguistics has led to the recent development of Cognitive Sociolinguistics (CS) as a field of its own (e.g Kristiansen and Dirven 2008; Geeraerts, Kristiansen, and Peirsman 2010; Pütz, Robinson, and Reif 2014; see Hollmann 2013 for a transition from CS to Construction Grammar (CxG)), and a model of dialect syntax in the cognitive linguistic theory of Word Grammar is provided by Hudson (2007). Researchers more directly involved in CxG have highlighted the importance of a variationist line of investigation (Hoffmann and Trousdale 2011), notably in the context of dialects (Ostman and Trousdale 2013): "the fact that [linguistic] differences emerge in systematic ways within a given dialect and differ across dialects implies that learners' knowledge of constructions must be shaped in dynamic ways by the language that is witnessed" (Goldberg 2019, 43). Pioneering studies adopting a constructionist approach to dialect variation, especially dialect syntax, have opened up a promising subdiscipline with important consequences for the architecture of CxG and its different versions

(Hollmann and Siewierska 2007; Bender 2007; Mukherjee and Gries 2009; Hollmann and Siewierska 2011; De Clerck and Colleman 2013). The aim of this short essay is to highlight two important points in this current context: not only can CxG shed new and brighter light on areas of dialect syntax that have not been uniformly accounted for in generative frameworks, but crucially the application of a constructional approach to an increasing range of dialectal phenomena helps us refine both the theory itself and its methodology. This is illustrated by work in progress on a noteworthy set of syntactic variants, Double Modals (DMs), in several dialects of English.

DMs are notorious but paradoxically elusive features found in restricted varieties of Southern American English, and even more rarely in some dialects of English in Scotland, England, and Ireland. Frequently cited examples in the literature include the following:

(1) a. I don't think there are any grants you *might could* apply for. (Texas, Huang 2011)

b. You'*ll can* enjoy your holiday now, I'm sure. (Scots, Angus McIntosh Centre Corpora, Edinburgh).

c. He wouldn't could've worked, even if you had asked him. (Tyneside, Beal 2004)

d. What kind of proposal would John might agree to? (Tennessee, Huang 2011)

These marked syntactic constructs are usually taken to be variants corresponding to an epistemic adverb + a modal (e.g. *He maybe could*) or a modal + a semi-modal (e.g. *You'll be able to*) in Standard English (Labov 1972; Battistella 1995).

Ever since the 1970s when DMs started to be subjected to linguistic analysis, the main challenge taken up was to explain their seemingly unusual syntactic structure. Nagle (2003) synthesizes the body of literature on DMs, exclusively focused on American English, as a debate on whether to consider DM sequences as involving two modals or to analyse them as a modal and another constituent (with the subsequent question of what this element is, and where). In many places, the very label of DMs has been considered deceitful: Pullum, for instance, suggests that "[...] there might be no double modals at all [...It] might be just a matter of the emergence of a small number of new adverbs with a rather strong preference for being used before certain modals" (Pullum 2007). Their potential existence has been, in any case, very difficult to account for in generative frameworks of language, in large part due to the general hold of the one-tensed verb per clause constraint in English grammar (Huddleston and Pullum 2002). As Nagle (2003) shows, these dialect variants are a problematic case in mainstream generative linguistics because of the treatment of modal auxiliaries as syntactic heads, which cannot iterate in a clause (Chomsky 1986; Pollock 1989; see the work of Hasty e.g. 2012 for a Minimalist treatment of American DMs), while other competing formal theories such as Lexical Functional Grammar (Falk 1984) and Generalized Phrase Structure Grammar (Gazdar, Pullum, and Sag 1982) have run into a similar problem. Thus the various theoretical studies dedicated to DMs over the years (most notably Boertien 1986; DiPaolo 1989; Battistella 1995; Nagle 2003; Elsman and Dubinsky 2009; Hasty 2012) often discuss the structure of DMs in terms of formal transformations deriving the surface DM from a deeper structure involving a 'true' modal and a 'spurious' modal (Battistella 1995). The reasoning in these studies has been usually based on single or informal acceptability judgments involving further

transformations to test the ‘grammaticality’ of the sequences (in particular, question inversion, negation, and question-tag formation), and disagreement has arisen from mismatches between these judgments and the results of the syntactic tests. This has brought the literature to a dead-end on a topic which seems to have fallen in the trap of increasing formal complexity based on homogeneous speech communities and ideal speaker/listener models, at the expense of cognitive and social realism.

Given this state of affairs, the recent rise of constructionist approaches to cognition and language offers a timely opportunity to produce a more convincing account of DMs as dialect constructions. A CxG-based account of DMs in dialects of English naturally overcomes the problems mentioned above, since one of the main tenets of Cognitive Linguistics and CxG is to do away with deep structure, derivations, and homogeneous/categorical models of language (Langacker 1982, 1986; Goldberg 2013), while focusing on usage, heterogeneity, and population-based approaches as explanatory factors for the structured organisation of constructions (Bybee 2013; see the explicit commitment to usage in frameworks such as Cognitive Construction Grammar, Boas 2013). The priority of cognitive and social realism over heavily formalised homogeneity, although a well known-fact of CxG inherited from the broader field of Cognitive Linguistics, can give a fresh start to the sparse and isolated literature on DMs. This can be achieved by considering first and foremost what forms exist, where they are used and by whom, and how they are organized hierarchically in networks, basic questions that have never been properly formulated. This requires of us to bring both the notions of individual cognition and language communities to the fore of the investigation, which is precisely what CxG has the potential to do (Petré and Anthonissen 2020).

In turn, and more importantly, this new perspective on DM constructions may have important implications for current advances in constructionist research, especially in the burgeoning area of dialect variation in CxG (Ostman and Trousdale 2013). Fleshing out a case study of DMs as potential syntactic dialectal constructions may reveal interesting and useful characteristics for the modelling of this area of linguistic knowledge. Among these characteristics, those which seem most plausible is the status of DMs as socially marked and distinct constructions which are also rare and recessive, with restricted sets and limited possible combinations. For instance, while studies of DMs in American English reveal a wide range of constructs that may be inherited from a relatively high and abstract constructional schema, the much rarer sets of DMs in British English, such as Tyneside English, nearly always constrain the second modal in the pair to be *can* or *could* (Beal 2004). It is even suggested that the rarity and restriction of British DM sets is a sign that they may be gradually disappearing and could die out over the next few generations (see Smith et al. 2019 on *might can*). A different theoretical contribution is the observation that DMs across these various dialects are distributed in quite different networks. While in Southern American English, DMs are still common, active, used in contemporary means of communication (as will be suggested below), and thus seem to exhibit high type frequencies and various sub- and super-schemas, DMs in Borders Scots and Tyneside English appear to be highly substantive and significantly lower in terms of token and type frequency, while in Ulster Scots varieties spoken in Northern Ireland, they may be only passively acceptable and no longer productive (Corrigan 2011). Such a comparative perspective on DM constructions can also be a gateway to new topics in dialect change, where one

investigates the factors behind the stability, revival, or demise of local and socially marked dialect variants such as these, and their different rates of entrenchment.

Finally, the potential benefits of a new, constructional approach to DMs can also be foreseen on a methodological level, solidifying existing means by applying them to understudied problems. The usage-based nature of CxG research naturally entails focus on what data representing usage events is and how it is to be collected (Gries 2013). The question of data with respect to DMs is an equally important one, as it poses an empirical challenge: these syntactic variants are rare, as well as geographically, socially, and stylistically restricted to highly informal communicative contexts (Mishoe and Montgomery 1994; Hasty et al. 2012), to the point where they are difficult to quantify in uncontrolled oral speech (Butters 1973). So, to deal with rare dialect syntax such as DMs, we need a tailored and refined methodology when working within the framework of CxG, and this brings us to test existing tools in novel ways. For instance, it seems that an approach involving method triangulation, i.e. the combination of qualitatively different methods, is desirable, as it appears in recent cognitively-oriented works (Gilquin 2007; Gilquin and Gries 2009; De Wit 2018) as well as explicitly constructionist works on variation (Hoffmann 2006, 2011). In the specific case of DMs, however, the nature of usable corpora needs to be re-evaluated, since classic corpora of oral and written language are likely to yield little to no relevant data. The development of corpora of Computer-Mediated Communication (CMC) such as Mark Davies's Global Web-Based English Corpus (GloWbE) or the English Corpora on the Web (ENCOW) at the University of Humboldt (Berlin) provides a new and untapped source of potential data to analyse DMs quantitatively. Another precious potential source is the analysis of language use on social media as a locus of spontaneous CMC, which in

some cases can be geolocated. This can be seen through preliminary results of work in collaboration with Grieve, who has been working on regional dialectology using social media including Twitter (Huang et al. 2016; Grieve, Nini, and Guo 2017, 2018): These results reveal significant quantitative and qualitative patterns of DMs in Southern American English. For instance, in the following maps plotted from a collection of Tweets over the year 2013–2014, it appears that the two most common DM forms *might could* and *might can* are indeed concentrated in the Southeast of the United States, but the former is concentrated slightly more in the Upper South, while the latter is spread more widely in the Southeast (Figures 1 and 2).

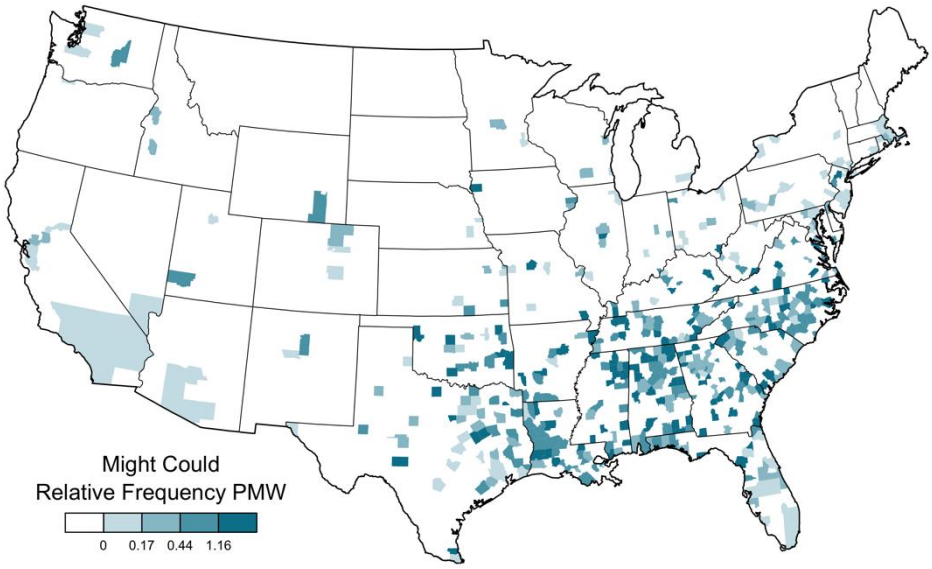

Figure 1: Relative frequency per million words of *might could* on American Twitter in 2013–14 (Grieve et al. 2015)

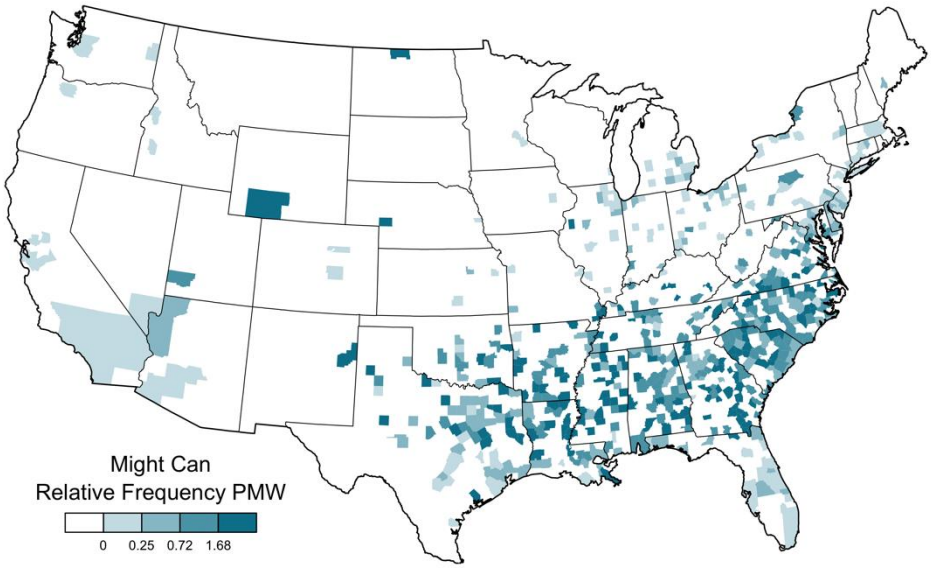

Figure 2: Relative frequency per million words of *might can* on American Twitter in 2013–14 (Grieve et al. 2015)

Using the frequency data from the modal combinations collected and mapped in the Twitter corpus, we can sketch a hypothetical network of the most common forms and see how they interact. In Figure 3, which retains only the top quartile of all DM tokens collected, the thickness of the edges is indexed on the co-occurrence frequency counts of the modals in first position and the modals in second position.

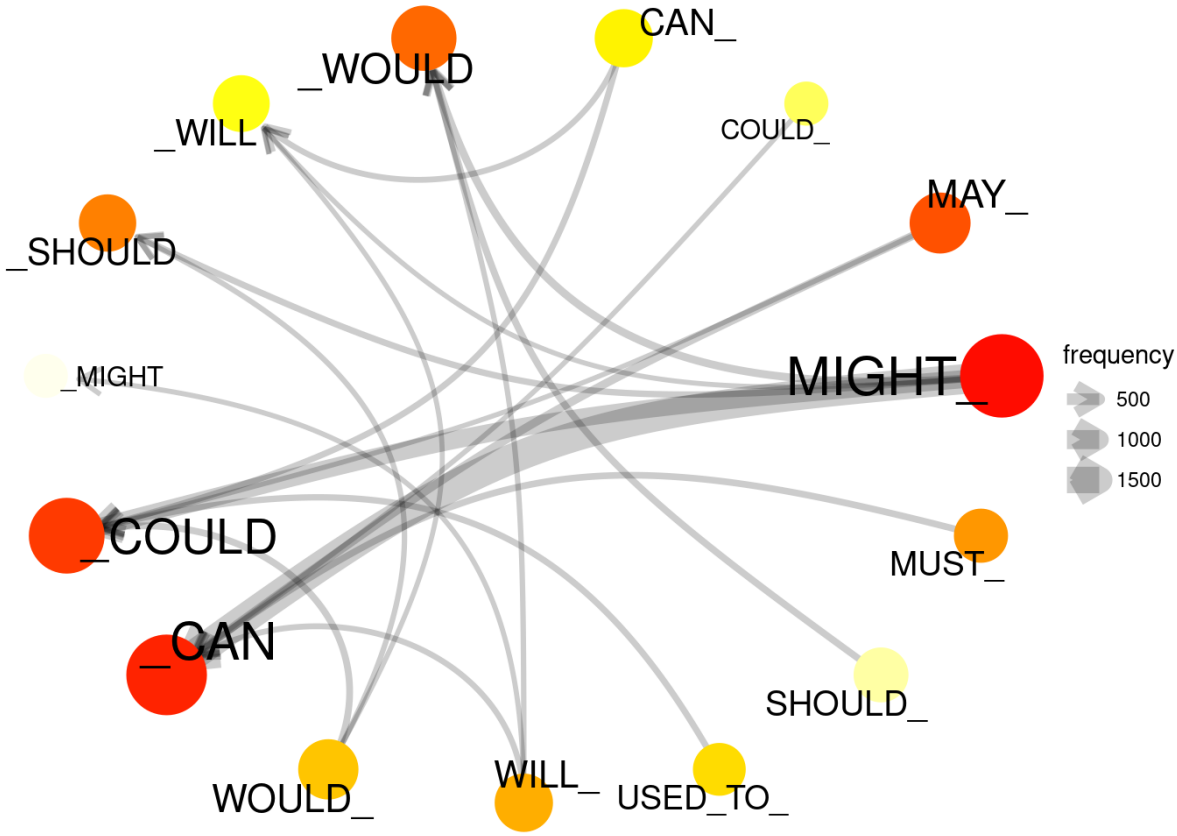

Figure 3: Network graph of the top quartile of modal combinations in the US Twitter corpus (2013–14)

The nodes denote subschemas of the DM construction. For example, MIGHT_ refers to those instances of the DM construction where *might* is in first position, and _COULD to those instances where *could* is in second position. Nodes are colored according to eigenvector centrality following a yellow to red gradient scheme. Shades of red indicate a high eigenvector score, meaning that the node is connected to many nodes which themselves have high scores.

Given the above, the graph suggests that semi-substantive schemas *might_*, *_can* and *_could* make up two influential substantive DMs, namely *might could* and *might*

can, while also being productive for lower-level combinations such as *might should*, *might would*, *will can* or *may can*/*may could*.

The refined geographical information provided by such data-driven investigations of modern online corpora offers new possibilities for the application of method triangulation. For instance, it allows one to pinpoint specific locations of interest to conduct fieldwork. One possibility is to prepare a hypothesis-driven and experimental-like acceptability judgment study informed by the geolocated corpora and carried out in one or more specific places where the forms occur in theoretically interesting ways. Acceptability judgments are an important empirical source in dialectology, which has been used in frameworks not limited to constructionist theories and CxG (Hoffmann 2014; Smith et al. 2019 in Scots; Sprouse and Schütze 2019). In terms of DM documentation, and with respect to the interest of a cross-dialectal constructional study of DMs, Britain may be the most important area to explore with this method, especially in those areas where features are on the decline. So, one possible research plan is to map British DMs if there are any (for example in the Borders and Tyneside), analyse the forms and infer their constructional network, and test one or more properties of this network through a well-designed acceptability judgement survey, preferably assisted by a computer.

By presenting and sketching some of this work in progress, we hope to have shown that a constructional approach to dialect syntax is a promising new lens to analyse DMs in dialects of English, and in turn, such an approach invites us to push and expand the theoretical and methodological limits of current research in dialect syntax in CxG, through the case study of rare syntactic variants.

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