This book covers almost all basic concepts of syntax that a syntax student needs to grasp. Culicover provides a commendable outline of the historical developments in syntactic theory, while at the same time introducing his own, non-mainstream generative theory, founded on Culicover & Jackendoff (2005) and related work on conceptual semantics (e.g. Fodor 1975, Jackendoff 1983), which he believes to be more empirically grounded. Each topic of discussion is fully illustrated with attested examples from a number of different languages, and each chapter ends with a list of further research questions. At first blush, it is hard to see whether Culicover succeeds in rendering syntax 'simpler' by shifting the explanatory burden to the level of conceptual structure. To settle this question, more empirical studies are needed, as well as a clearer understanding of what conceptual structure refers to (the definition of CS as 'a central system of the mind', found in Culicover & Jackendoff (2005: 20), is of only limited usefulness). To conclude, Culicover's innovative syntactic analyses in this book forcefully demonstrate that many years of research from the generative enterprise, led by Noam Chomsky, have provided the background to almost all syntactic frameworks on the market, and that 'the old wisdom' remains a valuable resource, which we cannot afford to ignore.

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*Author's address: Department of Linguistics, United Arab Emirates University, P.O.Box 17771, Al-Ain, UAE*
*Leung@uaeu.ac.ae*
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**Nigel Fabb & Morris Halle**, *Meter in poetry: A new theory*. Cambridge: Cambridge University Press, 2008. Pp. x + 297.

Reviewed by MICHAEL HAMMOND, University of Arizona

This book brings the linguistic analysis of poetic meter to a new level. The authors, Nigel Fabb & Morris Halle, offer a novel theory of meter and, in a wonderfully broad study, apply it to a huge number of different meters used

in various poetic traditions. While one can take issue with aspects of their theory, the book under review, which also includes a chapter by Carlos Piera (chapter 4, 'Southern Romance'), sets the empirical bar very high for subsequent work.

Poetic meter involves regulating the linguistic material of a poem in terms of repetition, prominence, and length. More specifically, Fabb & Halle argue that all metrical poetry has lines and can distinguish up to two categories of syllables. As they show, these categories are often based on stress or syllable weight, although they can be based on other properties as well. The authors maintain that the lines of a meter are best described in terms of a metrical grid (Liberman & Prince 1977, Prince 1983, Idsardi 1992, etc.). A metrical grid is an arrangement of marks associated with the syllables of a line that indicates the prominence and grouping of the syllables. Fabb & Halle propose that the grid is constructed by the iterative rules of Idsardi (1992). The general procedure is that syllables are marked with asterisks; parentheses are then inserted by an iterative rule, grouping either two or three syllables. The parentheses define constituents headed by either the leftmost or the rightmost element. The head is marked with an asterisk on the next gridline. This procedure continues up the grid however many levels one defines. There are both rules that apply at various points in the process and conditions on the final well-formedness of the grid.

Consider, for example, the meter of Robert Browning's 'Waring' in (1), which is traditionally characterized as iambic tetrameter.

(1) I left his arm that night myself
For what's-his-name's, the new prose-poet
Who wrote the book there, on the shelf –
How, forsooth, was I to know it
If Waring meant to glide away
Like a ghost at break of day?

Browning's poem constitutes an example of a STRICT meter. First, the iterative grid construction rules apply, as shown in (2), and then lines are checked for well-formedness. (While Fabb & Halle do not provide an analysis of the higher grid levels for this poem, the analysis of them is straightforward in their system and I have added it as (2b–c) below.)

(2) (a) Gridline 0: starting ⟨just / one asterisk in⟩ at the R[ight] edge insert a R parenthesis, form binary groups, heads R.

i. The last (leftmost) group may be incomplete. (48, ex. (11))

(b) Gridline 1: starting at the R edge, insert a R parenthesis, form binary groups, heads R.

(c) Gridline 2: starting at the R edge, insert a R parenthesis, form binary groups, heads R.

In the grid thus constructed, every syllable must be accommodated. In addition, stress maxima (Halle & Keyser 1971) must project to gridline 1, that is, they must have an asterisk at that level. For Browning, Fabb & Halle define maxima as follows:

> The syllable bearing the word stress in a polysyllabic word is a maximum, if it is preceded and followed in the same line by a syllable with less stress. (47)

(3) gives the grid for line 1 of Browning's poem. (Fabb & Halle place their grids below the line, but here, they are inverted, following general practice.)

(3)
```
                          *
)          *              *)
)  *       * )     *      *)
)* * ) * * )   *   * )  * * )
 I left his arm that night myself
```

There are no stress maxima in this line. The only polysyllabic word stress is line-final. The overall length of the line is governed by the grid. In (3), all syllables are accommodated by the grid and the line is therefore well-formed.

Notice that the first parenthesis on gridline 1 can be at the right edge or one asterisk in; either option will yield a well-formed line, as seen in (4), which gives line 4 of the poem and illustrates parenthesis insertion at the right edge.

(4)
```
                          *
)          *              * )
) *        * )     *      * )
  * ) *  * )   * *) *    * )*
 How, forsóoth, was I to know it
```

Here we see that the rightmost asterisk is placed one syllable in. This allows the line to accommodate the stress maximum on *forsooth*, marked here with an acute accent. In addition, the leftmost gridline 0 group is incomplete, accommodating the seven syllables available after the rightmost is excluded.

The other principal type of meter is LOOSE meter. In loose meter, one of the two syllable categories projects a gridline 1 asterisk. These asterisks affect subsequent application of the iterative grid construction rules. Fabb & Halle cite the following excerpt from Samuel Taylor Coleridge's 'Christabel' as an example.



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(5) 'Tis the middle of night by the castle clock,
And the owls have awakened the crowing cock;
Tu – whit! – Tu – whoo!
And hark, again! the crowing cock,
How drowsily it crew.

Sir Leoline, the Baron rich,
Hath a toothless mastiff bitch;
From her kennel beneath the rock
She maketh answer to the clock,
Four for the quarters, and twelve for the hour;
Ever and aye, by shine and shower,
Sixteen short howls, not over loud;
Some say, she sees my lady's shroud.

Once again, there are four beats per line, but line length varies much more. To describe such meters, Fabb & Halle first mark stress maxima and then build the grid. They provide the following general definition of stress maximum for loose meters:

> The syllable bearing the word stress is a maximum, except when it is immediately preceded or followed in the same line by a syllable carrying greater stress. (68)

The analysis of (5) is given in (6). (Again, Fabb & Halle do not provide an analysis of the higher levels of the grid, which I have consequently added in conformity with other analyses they provide.)

(6) (a) Project maxima to gridline 1.
(b) Insert a R parenthesis on gridline 0 after a mark projecting from maximum.
(c) Gridline 0: starting just at the R edge, insert a L[eft] parenthesis, form binary groups, heads R. Ungrouped syllables are permitted. Incomplete groups are permitted.
(d) Gridline 1: starting at the R edge, insert a R parenthesis, form binary groups, heads R.
(e) Gridline 2: starting at the R edge, insert a R parenthesis, form binary groups, heads R.

The metrical grid for the first line is seen in (7).



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(7)

```
    *   *   *   * *   *     *   *   *   *   *
```

(a) 'Tis the míddle of níght by the cástle clóck, ⟹

```
            *       *           *       *
    *   *   *   * *   *     *   *   *   *   *
```

(b) 'Tis the míddle of níght by the cástle clóck, ⟹

```
            *       *           *       *
    *   *   *) * *   *)    *   *   *) *   *)
```

(c) 'Tis the míddle of níght by the cástle clóck, ⟹

```
            *       *           *       *
  *( *   *) *(*   *)    * (*  *)(*   *)(
```

(d) 'Tis the míddle of níght by the cástle clóck, ⟹

```
                    *                   *
  )         *       *)          *       *)
  *( *   *) *(*   *)    * (*  *)(*   *)(
```

(e) 'Tis the míddle of níght by the cástle clóck, ⟹

```
                                        *
  )                 *                 *)
  )         *       *)          *       *)
  *( *   *) *(*   *)    * (*  *)(*   *)(
```

(f) 'Tis the míddle of níght by the cástle clóck,

The asterisks in line 1 are projected from stress maxima, as defined. Right parentheses are then placed to the right of each of these, and iterative grid construction proceeds. Notice how the right parentheses inserted prior to gridline 0 are respected by the placement of left parentheses on gridline 0. The derivation then proceeds as in the previous case.

This system allows for line 1 asterisks to arise either by projecting from a maximum, or from iterative placement of left parentheses. Line 9 of the poem exemplifies this, as shown in (8) below. Here, the derivation is collapsed into two steps: (i) the projection of maxima and (ii) the remaining steps.



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(8)

```
        *   * *   *     *   *   *   *
```

(a) She máketh ánswer to the clóck, ⟹

```
            *       *                   *
        *   *)*   *)   *   *   *   *)
```

(b) She mák eth ánswer to the clóck, ⟹

```
                                        *
    )               *                   *)
    )       *       *)      *           *)
     (*   *)(*   *) (*   *  (*   *)(
```

(c) She mák eth ánswer to the clóck,

Notice how an additional gridline 0 constituent is constructed when there is sufficient room for it. (Fabb & Halle maintain that incomplete groups are allowed at the lowest gridline in this meter, so it is not clear why no additional monosyllabic constituents are constructed in example (7).)

Fabb & Halle discuss meter in many languages, such as Spanish, Italian, Galician-Portuguese, Latin, French, Greek, Classical Arabic, Sanskrit, Latvian, Chinese, Vietnamese, Old English, and Old Testament Hebrew. Let us consider an example of a type of metrical verse from a language other than English.

Half-lines of the Classical Arabic *rajaz* meter (187–189) have eight syllables each. In the *rajaz* meter, the distribution of light and heavy syllables is regulated as exemplified in (9).

(9)

```
  –   –   ∪ – –   – ∪   –
xawdun yafūḥu lmisku min
          –   – ∪ –   –   –   ∪ –
         ’ardānihā wa l’anbarū
 ∪ –  ∪  –   –   – ∪ –
yaḍīqu ‘an ’ardāfihā
          ∪ –  ∪ – –    – ∪ –
         ’idā yulātu lmi’zarū
```

‘A soft maid whose cuffs exude the smell of musk and amber / and the loin cloth when twisted around her, is to tight for her buttocks!’ Attrib. ’Umar bin Abī Rabī‘ah

Only certain positions are regulated in this meter: the third, fourth, seventh, and eighth syllables must have the syllable weights indicated above. Fabb & Halle achieve this by imposing a specific condition on well-formed grids: ‘a syllable projecting to gridline 2 must be heavy, and if it is part of a branching gridline 0 group, it must be preceded by a light syllable’ (187). This condition

governs the distribution of weight in other Classical Arabic meters they describe, so it is formulated somewhat more generally than we might expect. The grid construction procedure required is given in (10).

(10) (a) Gridline 0: starting at the L edge, insert a L parenthesis, form binary groups, heads R.
(b) Gridline 1: starting just at the L edge, insert a L parenthesis, form binary groups, heads R.
(c) Gridline 2: starting just at the L edge, insert a L parenthesis, form binary groups, heads L.
(d) Gridline 3: starting just at the L edge, insert a L parenthesis, form binary groups, heads L. The last (rightmost) group must be incomplete.

These grid construction rules are meant to account for the half-lines of the (short version) of *rajaz*. Fabb & Halle provide the example in (11) for the first line from the poem in (9).

(11)
```
                *
(               *
(               *                *(
(       *       *(       *       *(
( *     *  ( * *(*     *(*     *(
xawdun yafūḥ u lmisku min
```

Gridline 3 appears extraneous, but Fabb & Halle use it to accommodate the long version of *rajaz* and other meters in Classical Arabic. Notice how the restriction on syllables that project to gridline 2 and their preceding sisters captures the quantity restrictions needed.

Fabb & Halle are explicit about the central claims of their theory, stating that

> every well-formed line of metrical verse consists not only of the phonemes and syllables that determine its pronunciation, but also of what we have called a metrical grid[;]
> … each grid is the output of a computation whose input is the string of syllables that make up the verse line: the grid is not preconstructed and then attached to the line, but is generated separately from [*sic*] each individual line[;]
> … the computation consists in the ordered application of a licensed set of rules selected from a finite set of rules[;]
> … a verse line is well formed metrically if and only if its grid is well formed (i.e., the grid is the output of a licensed set of ordered rules) and if the syllables composing the line satisfy certain further conditions. (11)



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Let us go through each of these claims in order to understand them. The first claim puts forward the idea that the grid is available as part of the assessment of the well-formedness of a line of meter. The empirical thrust of this is that this is the only representation of meter available in the assessment of well-formedness – the usefulness of such a claim depends on how constrained the grid representations are. We have seen that grids contain bounded constituents (which are two or three syllables long) and any number of gridlines. In addition, we have seen that one can specify that grid marks can be left out of constituents and that constituents can be incomplete.

According to the second claim, grids are constructed on the basis of lines and lines are not matched to preexisting templates, as in a number of other theories. This would seem to entail a certain measure of flexibility in line structure. Again, the usefulness of such a claim depends on how flexible the grid construction procedure can be. We have already seen that constituents can be of varying size – elements can be left out of the grid, either between constituents or at the edge of the grid. There are other variables as well. The operative question is whether an alternative templatic theory would allow for similar flexibility.

The third claim contains two points of interest. The first is that there is a derivation that involves ordered rules. Fabb & Halle exemplify this in several places where they exploit different orderings to get different effects. Examples of critical ordering are quite limited, however. One can compare this to a classical example of rule ordering like Chomsky & Halle (1968), where there is far more use of ordering than in the present work. The second point of interest in this claim is that there is a finite number of rules. It is not clear how this is so, or at least, it is not clearly demonstrated. For example, in the analysis of Classical Arabic, we find the grid construction rule '[o]n Gridline 0, insert a L parenthesis to the left of an asterisk which projects from a light syllable, if that syllable is followed by a heavy syllable' (197). This rule raises the questions of when a parenthesis can be inserted and whether any syllable in the string can be referred to in such a rule.

The fourth claim is that well-formed grids are subject to conditions, which appear to be restricted to: (i) all gridded syllables, (ii) peripheral syllables, or (iii) syllables that project to some level. It seems that the conditions largely concern the distribution of the two categories of syllables that the language disposes or to the position of caesurae.

To sum up, while Fabb & Halle's book is extremely impressive in terms of empirical coverage and its generally explicit nature, there are three principal lacunae. First, there is no comparison to other linguistic theories of meter, e.g., Hayes (1983), Hanson & Kiparsky (1997) or Golston (1998). A comparison of the approach proposed here with that of Hanson & Kiparsky (1997) would have been particularly fruitful, as the latter is explicitly finite/parametric in character as well as explicitly grid-based. Similarly, a

comparison with Golston (1998) would have been useful as that proposal is explicitly constraint-based.

Another issue arises concerning the explicitly rule-based character of the present work, which it shares with the framework of Idsardi (1992), on which Fabb & Hall base their theory. However, most work in current phonology is constraint-based (McCarthy & Prince 1993, Prince & Smolensky 1993) and it would have been good to see the authors address the question of how the rule-based or derivational character of the present theory is essential to capturing some metrical facts that are less elegantly obtainable in an exclusively constraint-based system.

Finally, a major issue is the expressive power of the theory and whether it leads to overgeneration. For example, the grid construction system would seem to allow us to specify lines of any length, as there is no upper bound on the number of gridlines and one can allow or require peripheral groups to be incomplete. Is this necessary?

These are important issues that need to be addressed to assess the proposed theory fully. That said, to ensure sufficient depth of discussion for these issues would have required a much longer work. As it stands, the authors have laid out an interesting and fairly explicit proposal for how metrical poetry works and have demonstrated the power of this theory with a truly impressive array of facts. Anyone seriously interested in the linguistic analysis of meter really needs to read this book.

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*Author's address: Department of Linguistics, University of Arizona,*
*Tucson, AZ 85721, USA*
*hammond@u.arizona.edu*

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