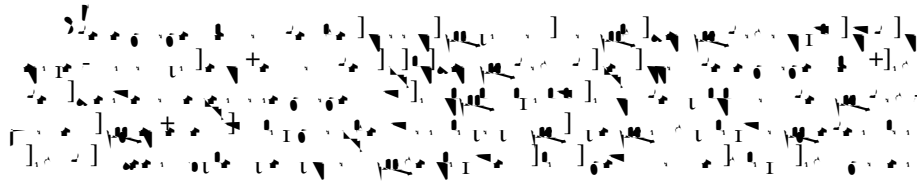


*Chapter 14*  
Sentences in the Brain:  
Event-Related Potentials as  
Real-Time Reflections of  
Sentence Comprehension  
and Language Learning

LEE OSTERHOUT, JUDITH MCLAUGHLIN,  
ALBERT KIM, RALF GREENWALD, AND  
KAYO INOUE



## 14.2 SENTENCE COMPREHENSION IN A NATIVE LANGUAGE



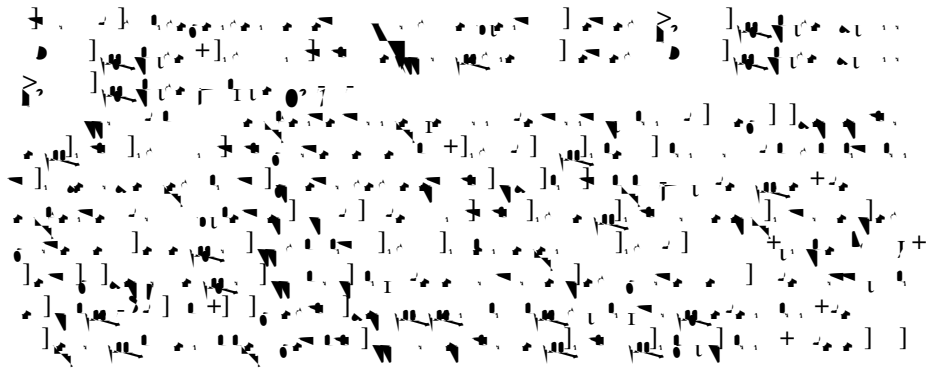




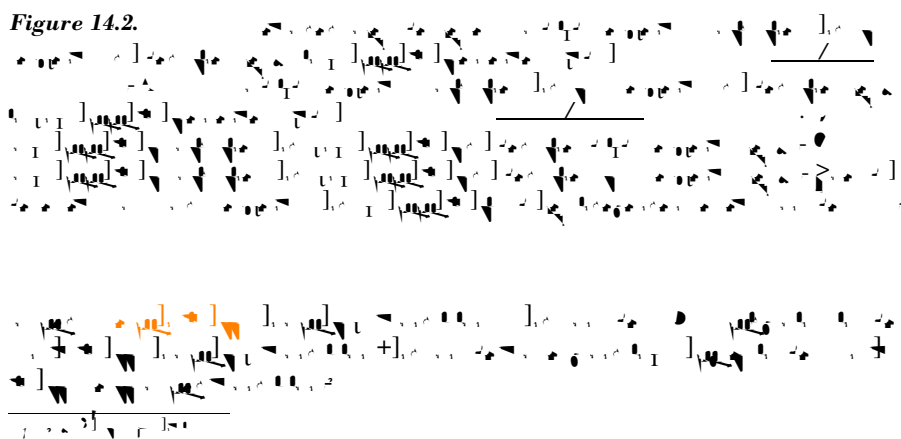
• 1 2 3 4 5 6 7 8 9 10

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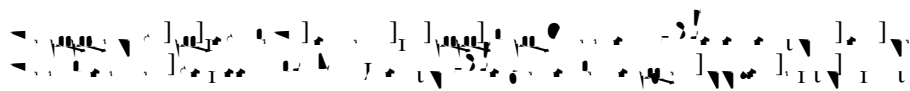
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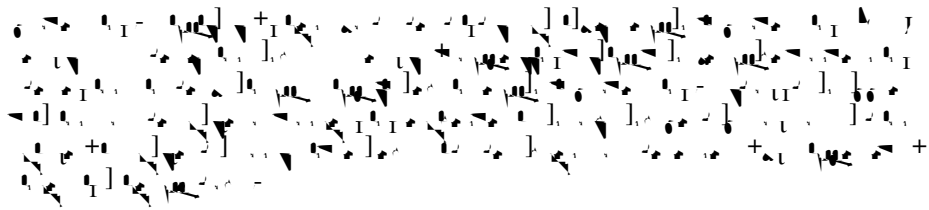




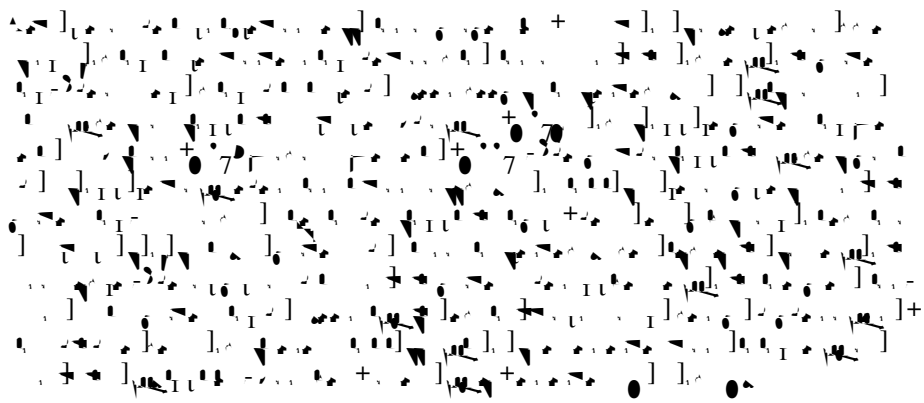




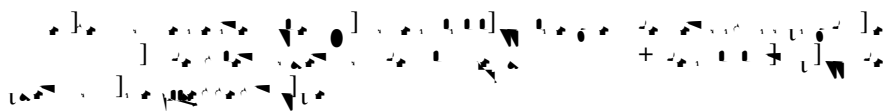


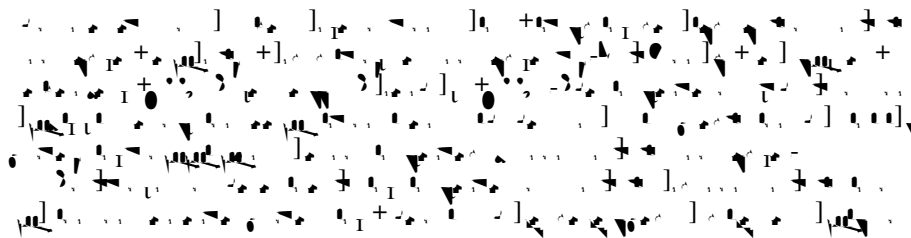


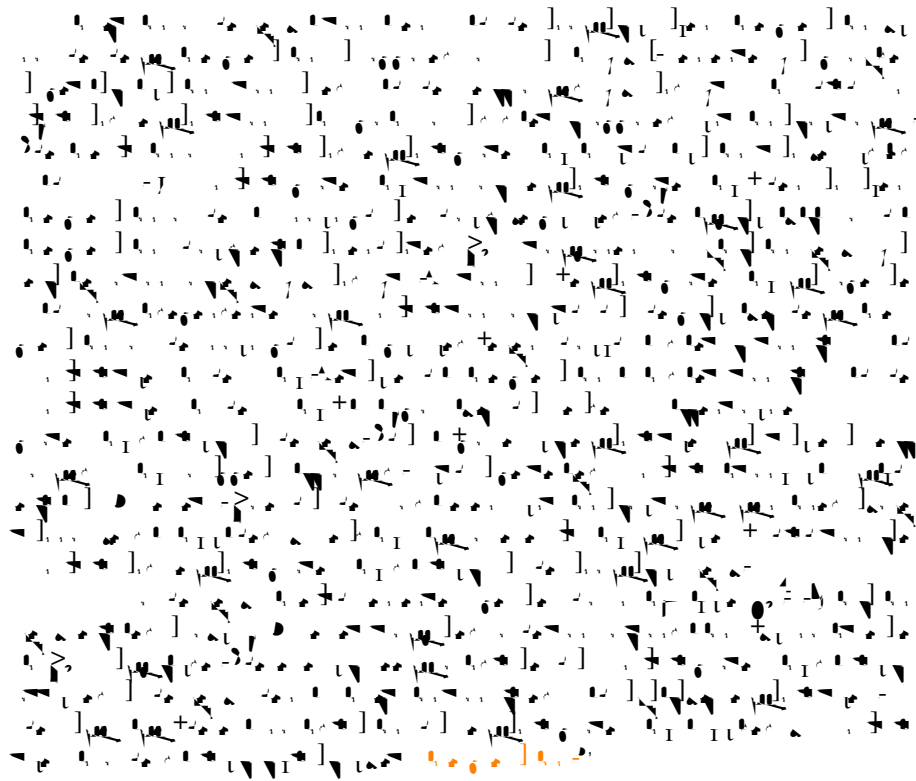
14.2.4 Coordination Between Syntax and Semantics in Sentence Processing



- $\frac{1}{2}$  =  $\frac{1}{2}$
- $\frac{1}{4}$  =  $\frac{1}{4}$







1.1  $\sqrt{0.0001} = 0.01$

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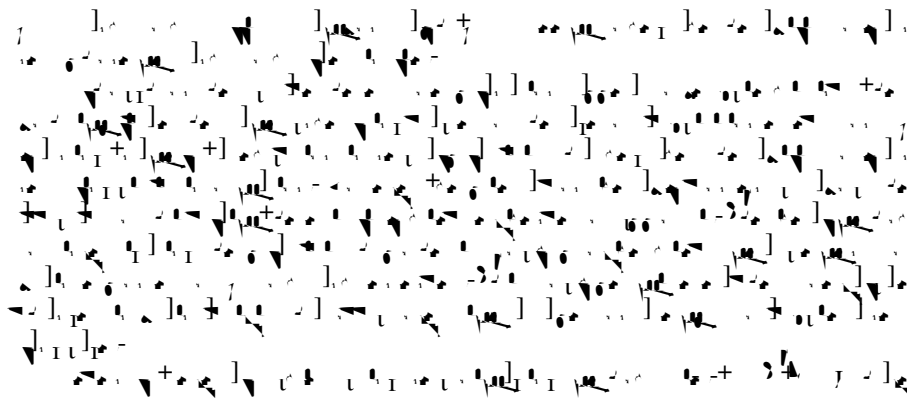
1.1  $\sqrt{0.0001} = 0.01$

1. 2. 3. 4. 5. 6.

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1. 2. 3. 4. 5. 6.









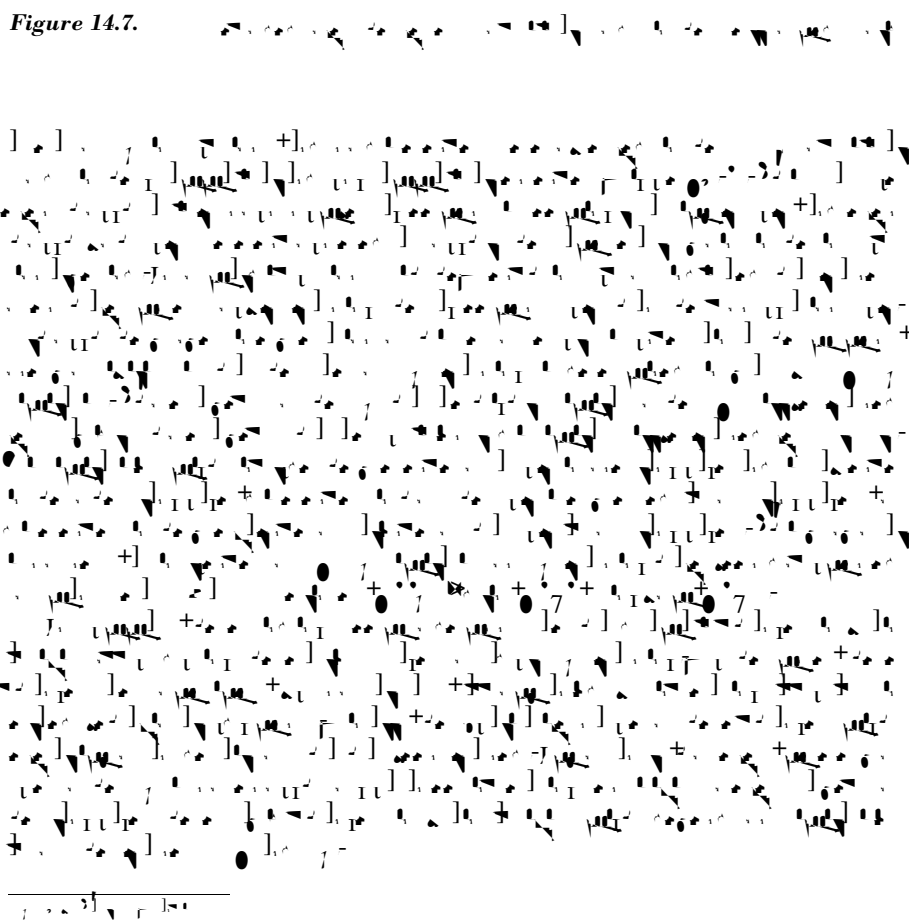
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4

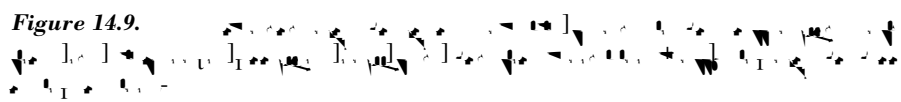
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- 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

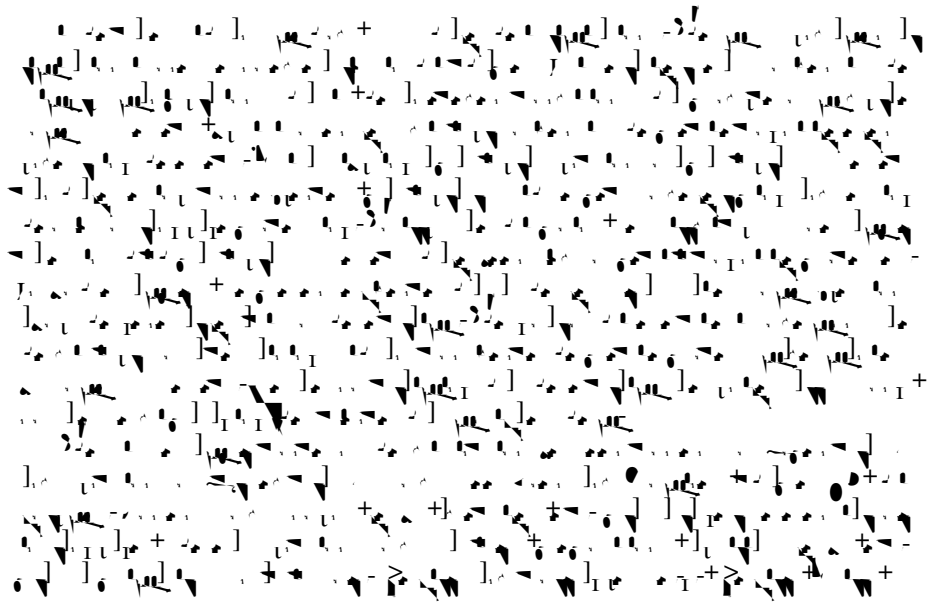
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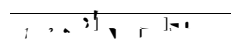


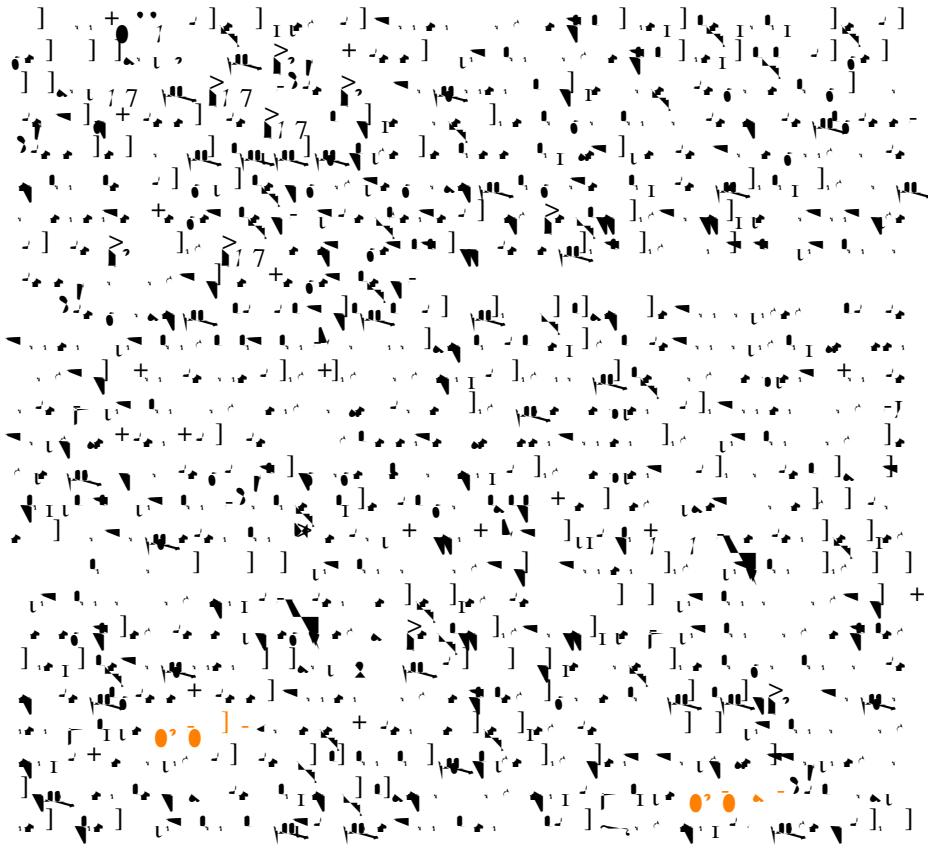
*Figure 14.9.* 

#### 14.4 CAVEATS AND CAUTIONS



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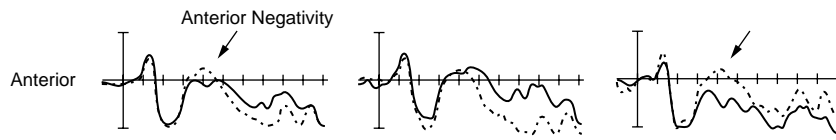
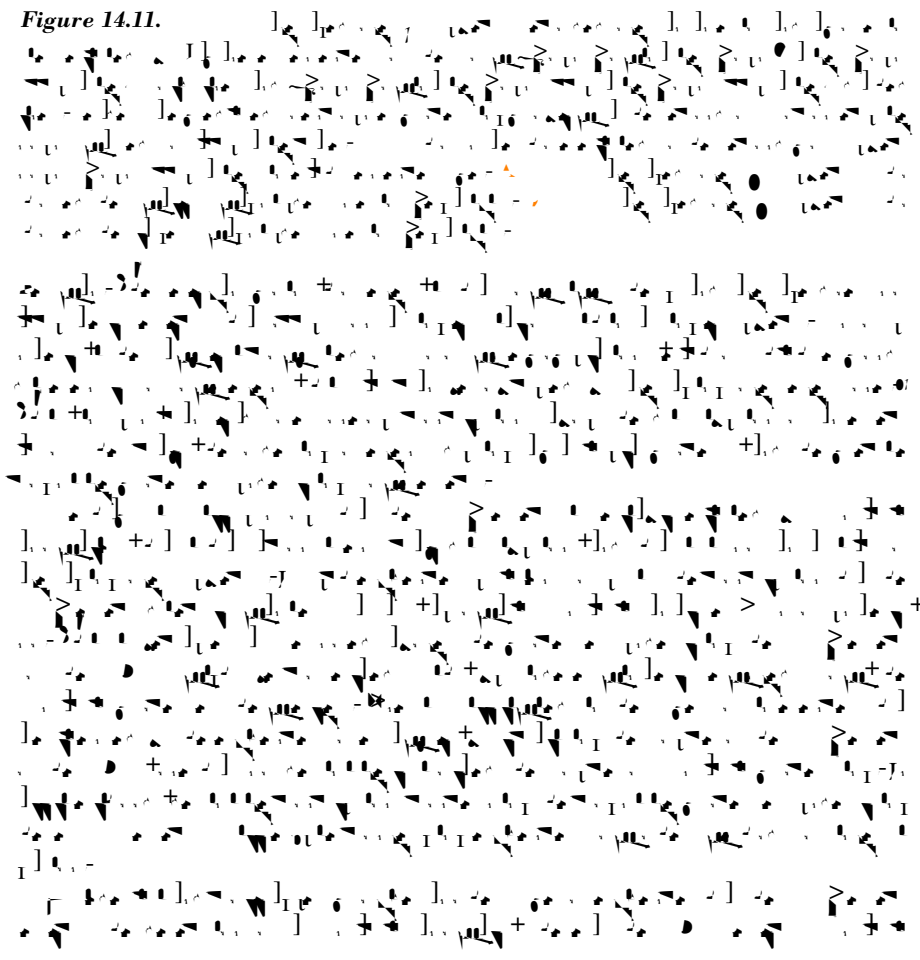
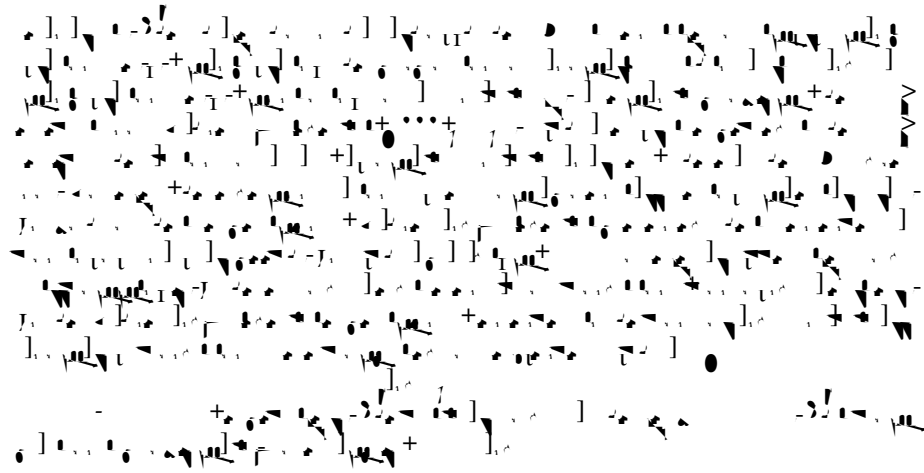


Figure 14.11.



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



### 14.5 CONCLUSIONS

The present study has shown that the brain processes sentences in a hierarchical manner, with the initial processing of words and phrases leading to the integration of the overall meaning of the sentence. This is supported by the findings that the brain's response to a sentence is significantly different from the sum of its parts, and that the brain's response to a sentence is significantly different from the sum of its parts. The results also suggest that the brain's response to a sentence is significantly different from the sum of its parts, and that the brain's response to a sentence is significantly different from the sum of its parts.

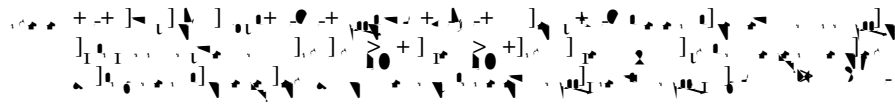
The findings of this study have important implications for our understanding of the brain's role in language processing. They suggest that the brain's response to a sentence is not simply a linear sequence of word processing, but rather a complex, hierarchical process that involves the integration of the overall meaning of the sentence. This is consistent with the idea that the brain's response to a sentence is significantly different from the sum of its parts, and that the brain's response to a sentence is significantly different from the sum of its parts.

The results also suggest that the brain's response to a sentence is significantly different from the sum of its parts, and that the brain's response to a sentence is significantly different from the sum of its parts. This is consistent with the idea that the brain's response to a sentence is significantly different from the sum of its parts, and that the brain's response to a sentence is significantly different from the sum of its parts.

### References

1. ... 38, ...

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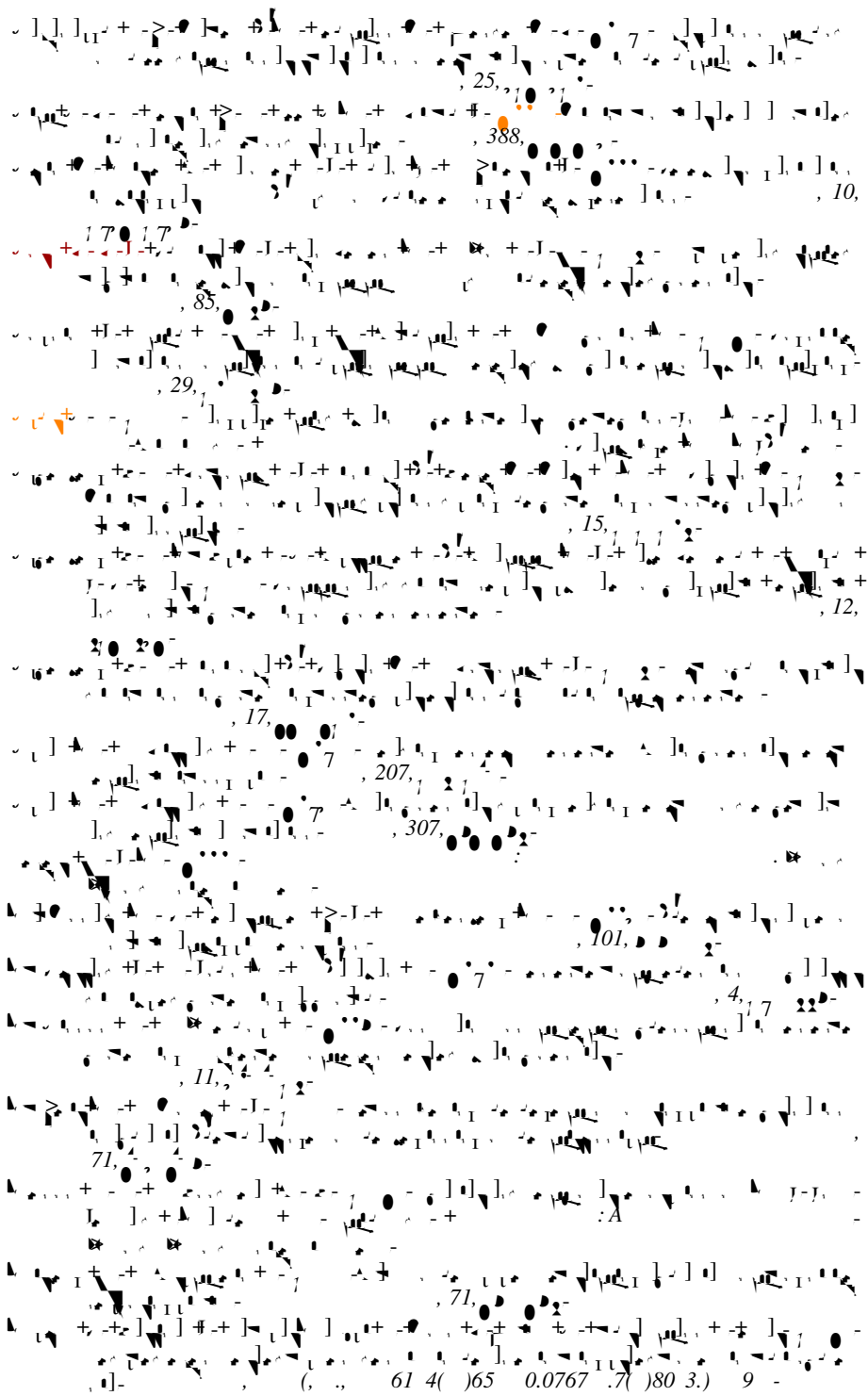


## SENTENCES IN THE BRAIN

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The image shows a musical score for a piece titled "THE ON-LINE STUDY OF SENTENCE COMPREHENSION". The score is written for a piano and features a complex, rhythmic melody with many accidentals and dynamic markings. The notation is dense and spans several staves. The title is written in a stylized font at the top of the page.





1. ...

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