



The Role of Consolidation in Learning & Categorization

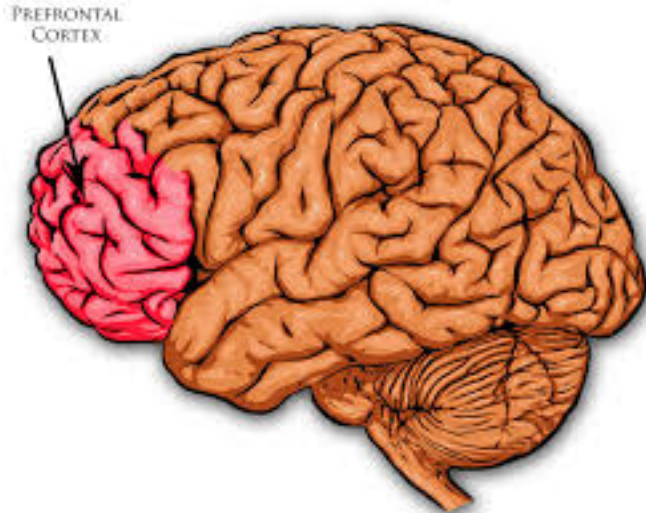
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Memory

Explicit
"Rule Based Learning"

Procedural
"Information Integration
Learning"



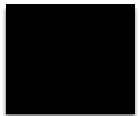
Memory

Explicit
"Rule Based Learning"

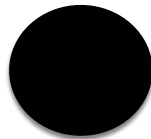
Procedural
"Information Integration
Learning"



VS.



VS.



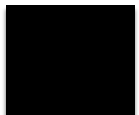
Memory

Explicit
"Rule Based Learning"

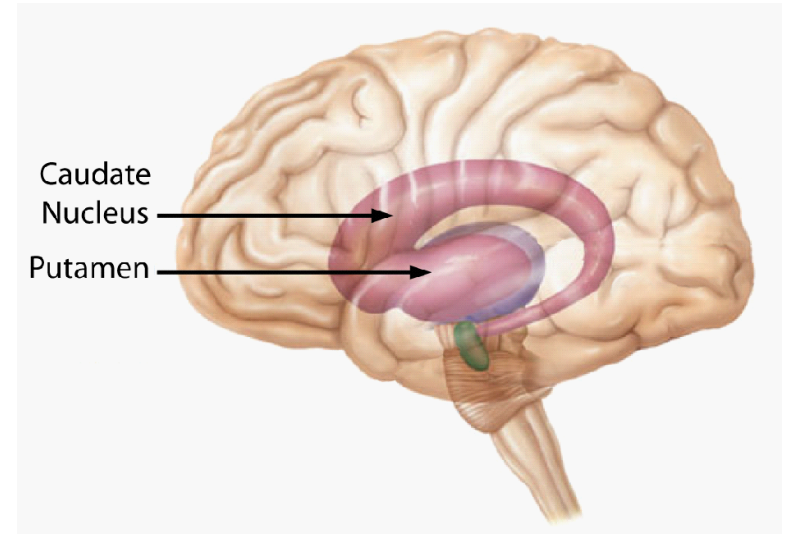
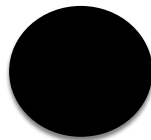
Procedural
"Information Integration
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VS.



VS.



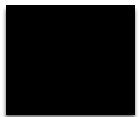
Memory

Explicit
"Rule Based Learning"

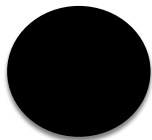
Procedural
"Information Integration
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VS.



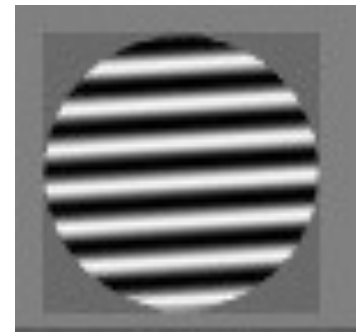
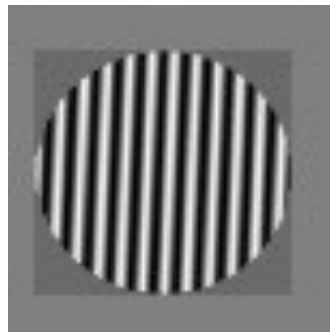
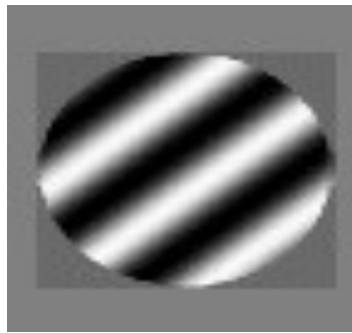
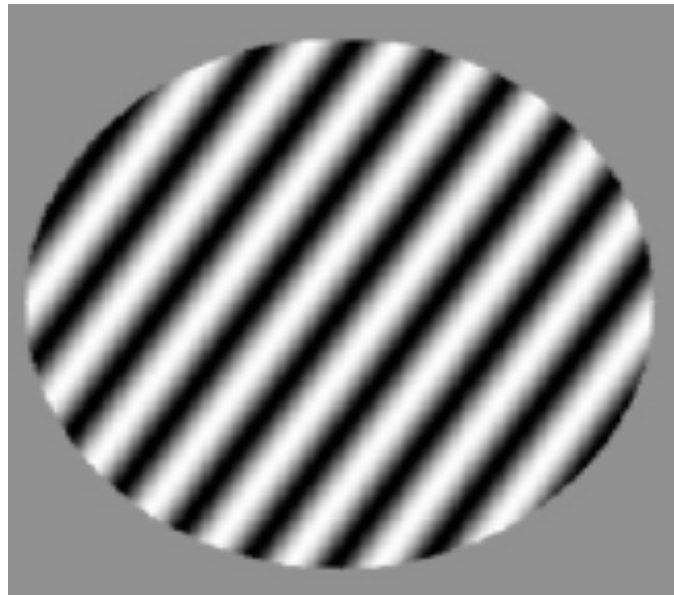
VS.



Relevance of Procedural Learning in Medicine

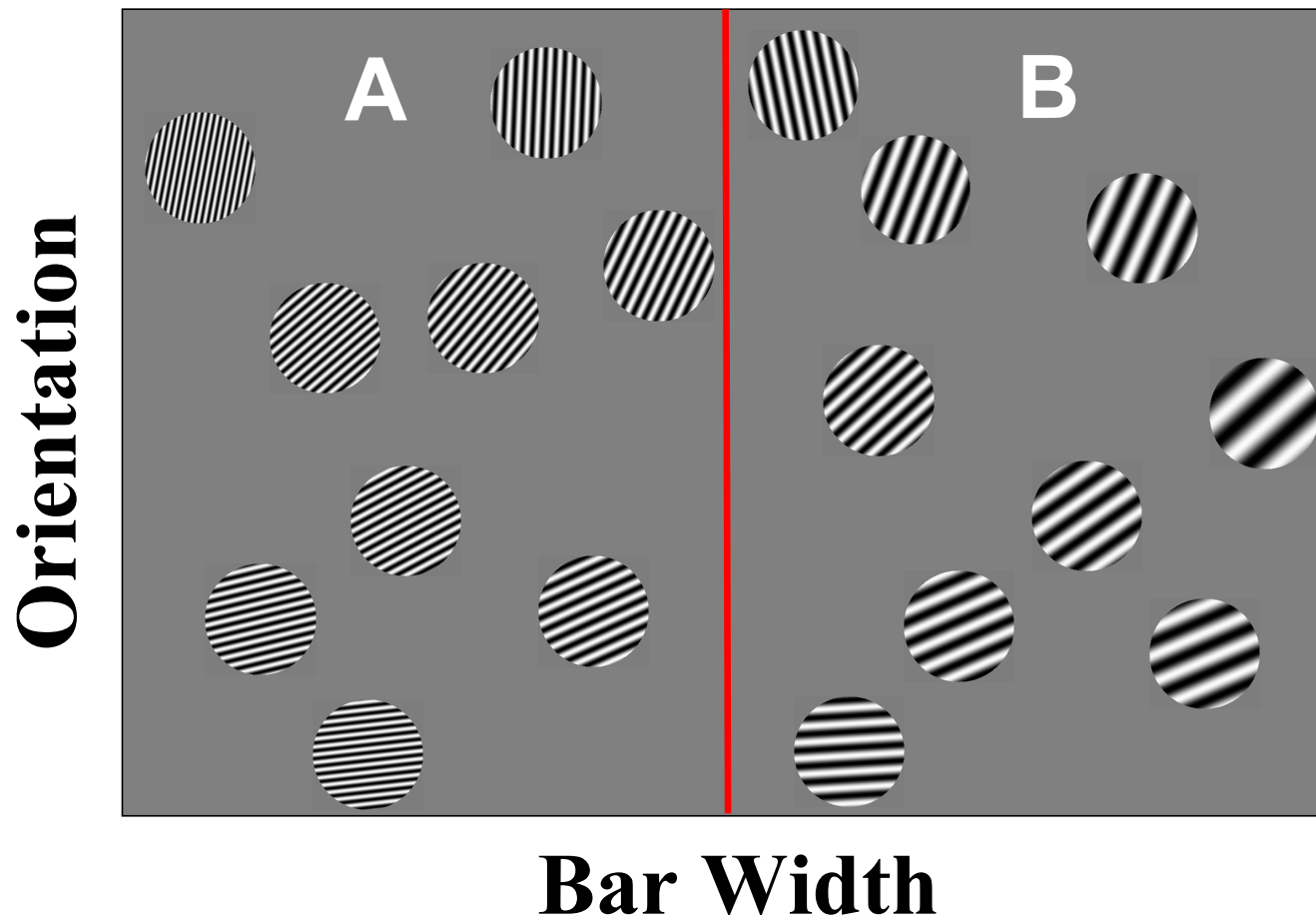


Stimulus On A Single Trial



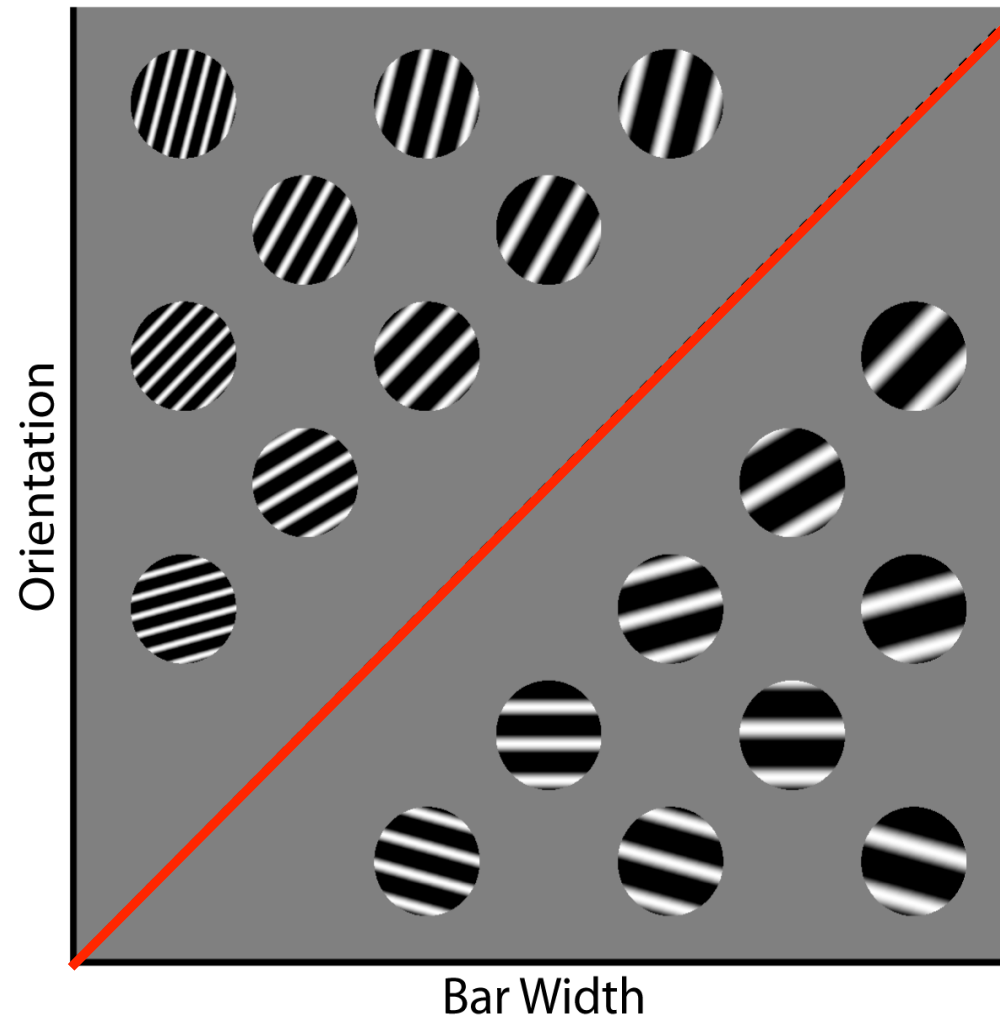
Explicit Memory Task

“Rule – Based Category Learning”



Procedural Memory Task

“Information Integration Learning”



The Current Study

Session 1

Break

Session 2

Condition 1

600 Trials
w/ feedback

1 hr

200 Trials
w/out Feedback

Condition 2

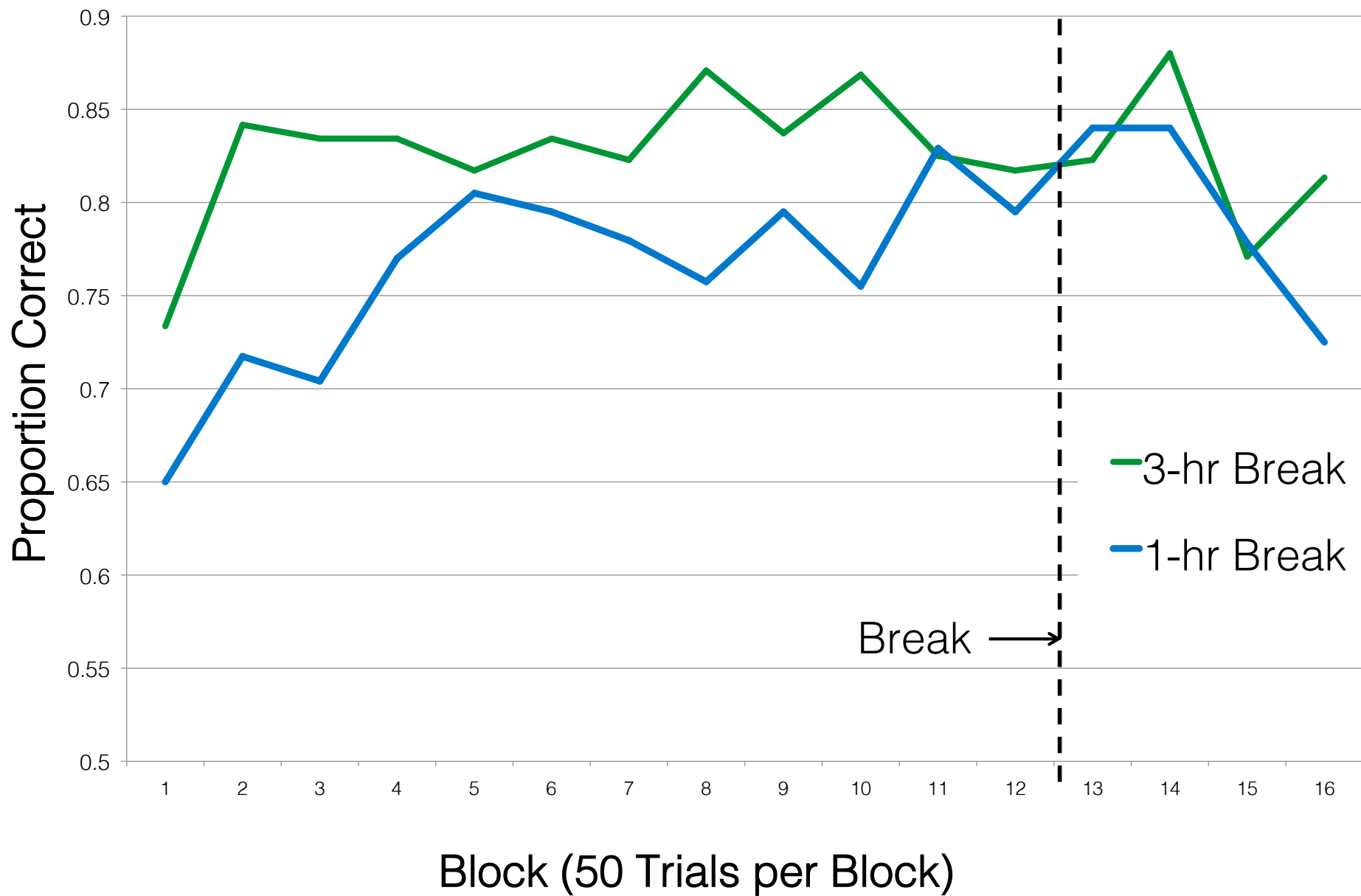
600 Trials
w/ Feedback

3+ hrs

200 Trials
w/out Feedback

	Session 1	Break	Session 2
Condition 1	600 Trials w/ feedback	1 hr	200 Trials w/out Feedback
Condition 2	600 Trials w/ Feedback	3+ hrs	200 Trials w/out Feedback

No Difference Observed Between Conditions



Discussion & Conclusions

- 1 hour vs. 3+ hour consolidation time
- In the future, a larger sample size could show that increased consolidation times lead to improvement in learning and memory

Acknowledgements

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Jens-Uwe Kuhn

