



OLD DOMINION  
UNIVERSITY

# Psychological Factors of Changing Driver Behavior



Behavioral Psychology  
Research & Analysis Team

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For the:  
2022 Commercial Motor Vehicle Summit  
Providence, Rhode Island





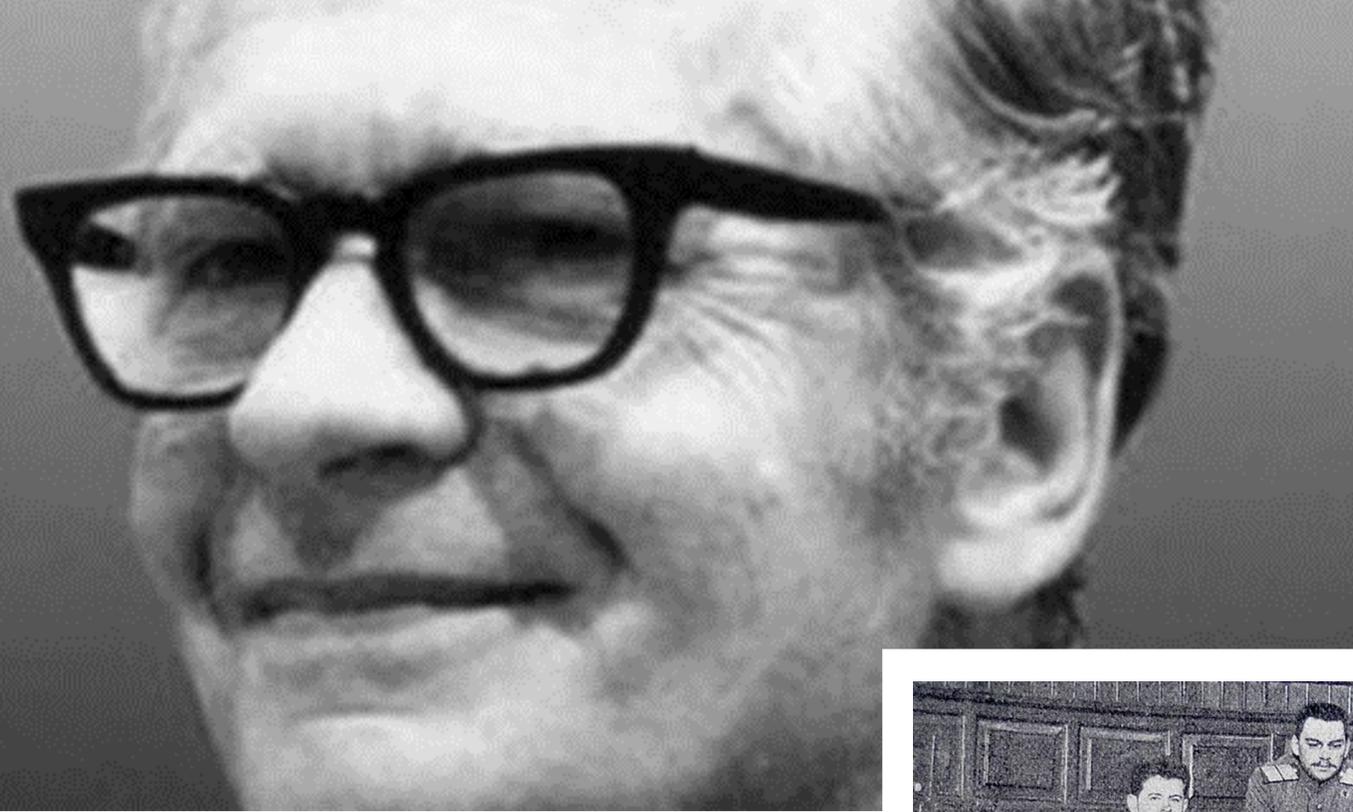
# Brief Agenda

- FIRST order of business – a bit about psychology
- SECOND - examples of psychological applications to the roadway safety environment
- FINALLY, I will challenge (*encourage*) you to include psychological concepts in your own work



# 1. Psyc 101



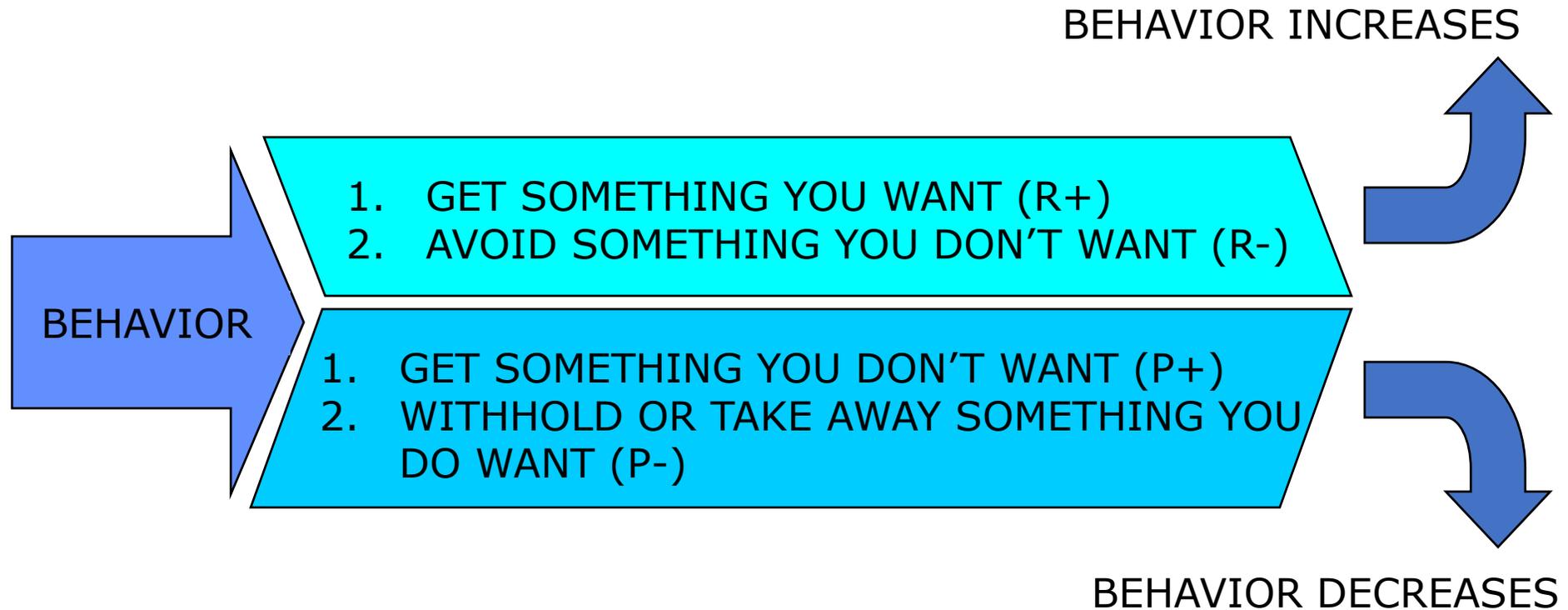


# Conditioning



# Consequences of Behavior

--From Daniels & Daniels (2004)





## 2. Psychology and Roadway Safety



Do you think these motivate?

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 **VDOT**  @VaDOT

January 23, 2020

<https://twitter.com/i/events/1220416792016932866>



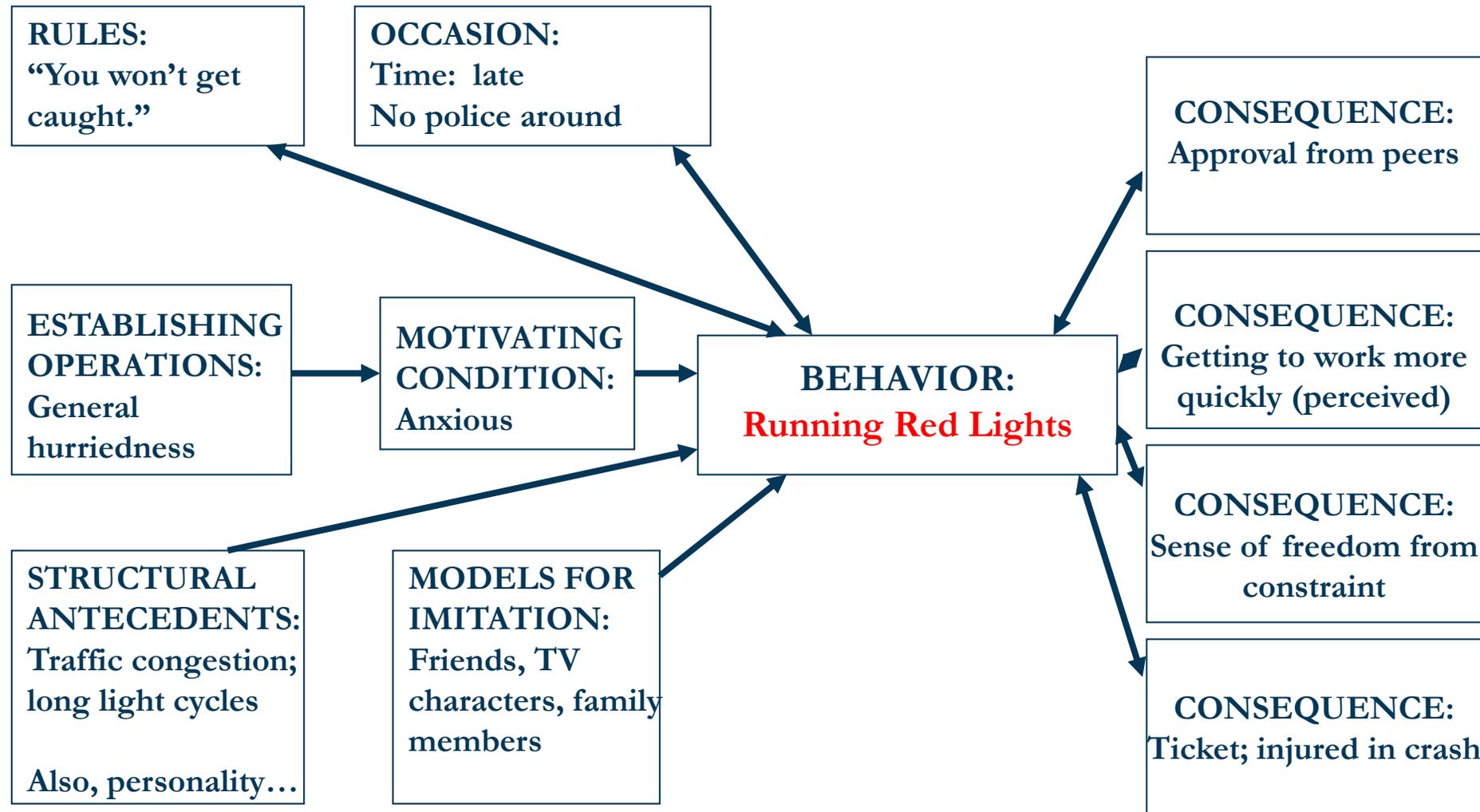


**RED** means **STOP**

<https://www.redmeansstop.org/contact-us/>



# Interlocking Contingencies for Red Light Running (adapted from Mattaini's model, 1996)





*Randy Greenwell, Va Pilot*

# Photo Enforcement



More examples

# Molnar et al. (2012): A higher seat belt rate found among states with these conditions...

1. Being in an urban or suburban area as opposed to a rural area
2. Being in a state with higher fines for non-use
3. Stronger laws
4. Being female
5. Driving an automobile vs. a truck
6. Being in a state with more racial diversity (lower percentage of White residents)
7. Being in a state where fewer people felt religion was an important part of their life
8. Being in a state with a higher percentage of people voting "Democrat in 2008" (as opposed to another party)

And Ash et al. (2014) found higher seat belt rates with primary laws when states have the following characteristics...

- Higher achievement scores of its children.
- Higher government effectiveness scores.
- Higher health scores.
- Larger gross state product.
- Fewer rural roads.



# 3. Your CHALLENGE



We cannot continue  
doing the same thing  
over and over and  
expect something new.



What can you do now to  
take advantage of  
psychology?

# Contact Information

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**THANK YOU** for your  
attention!

