

# Using Heart Rate Variability to Analyze Stress in Conversation

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# Vapor Lock



# Maybe Difficult Conversation?

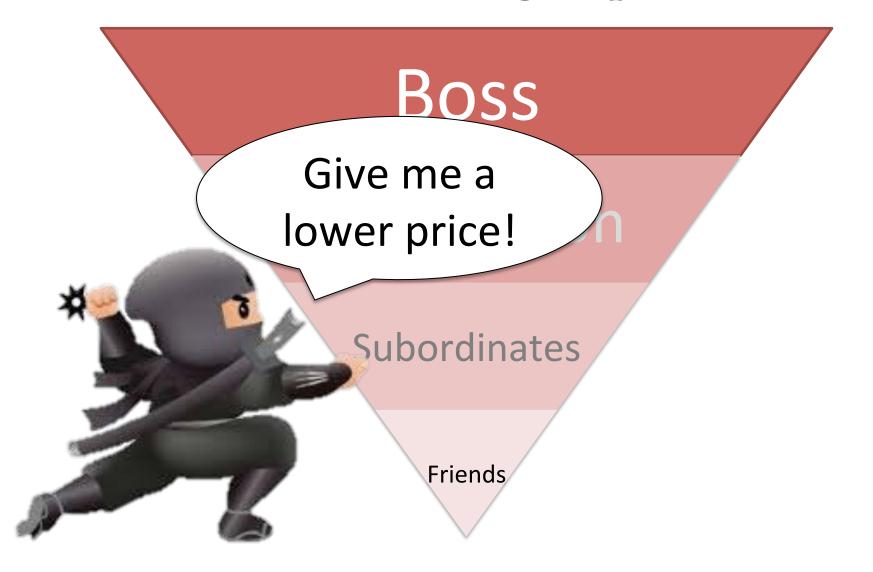


Negotiation

**Subordinates** 

**Friends** 

# Get Better at Avoiding Vapor Lock

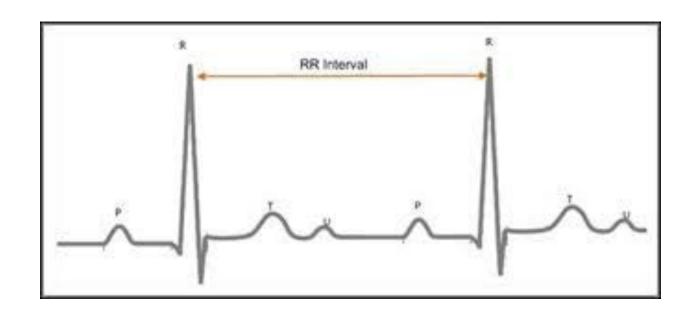




#### What did I do?

Measured my heart rate variability when in conversations with work colleagues

# Heart Rate Variability (HRV)



Heart beat intervals vary

## Difficult Subjects as Threats

No Threat "RELAX.."

#### HIGH HRV

Brain Engaged



Threat "RUN!"

Low HRV

Vapor Lock

#### LOW HRV VAPOR LOCK



With whom, and when?



#### How did I do it?

Wore off the shelf wearables, took reading during meeting, export data to excel

#### Measured

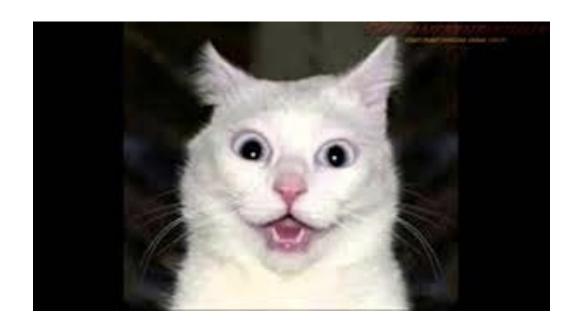




### 154 Conversations

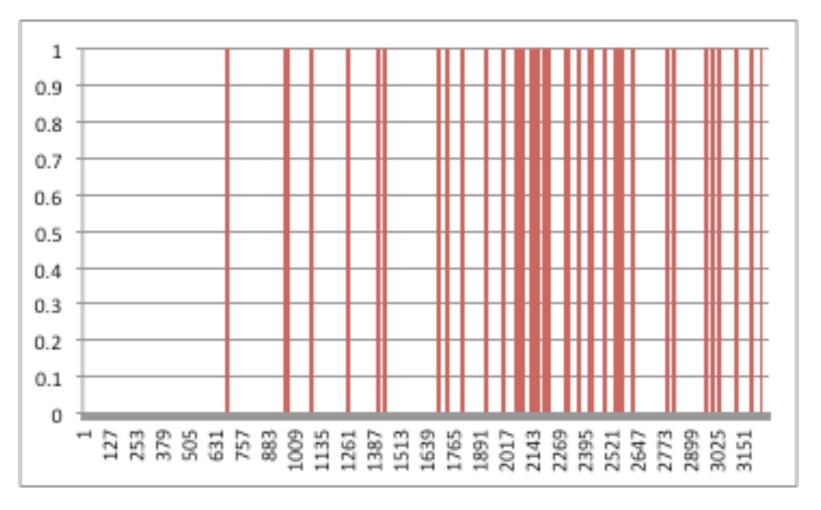
- 27 reporting to Bosses
- 87 with Colleagues
- 4 as Interviewer
- 11 Public Speaking
- 25 Staff meetings

## Conditions For Vapor Lock



- For more than 9 consecutive heart beats,
- Interval between successive beats is under 17 ms

## Percent of Time in Vapor Lock



13.3% in Vapor Lock

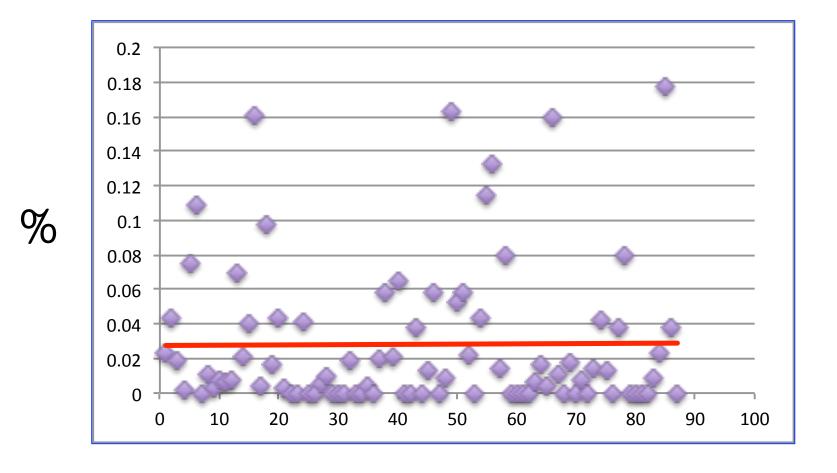




#### What did I learn?

Difficult conversations are not consistent creators of Vapor Lock.

#### Did Not Get Better With Practice

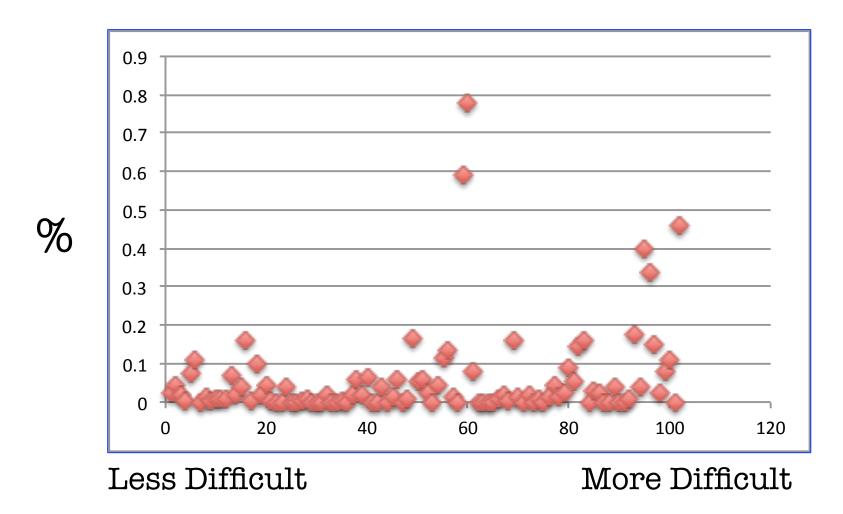




% of Time in Vapor Lock

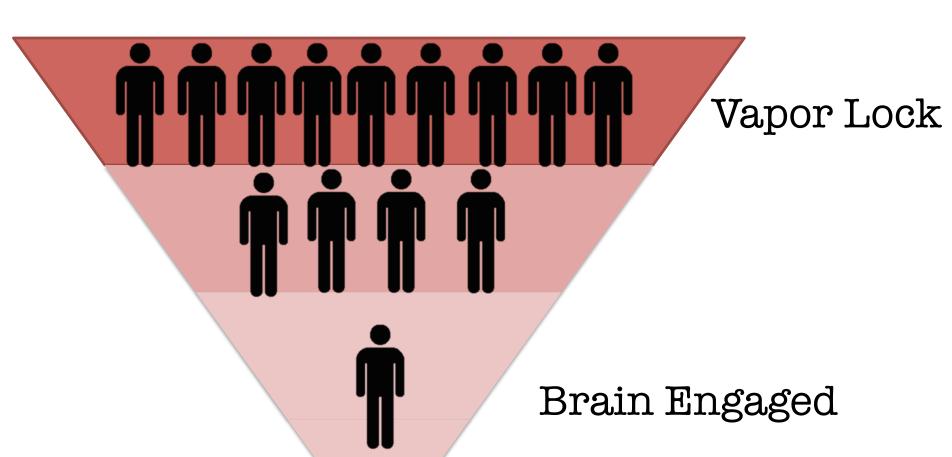


## Not Correlated with Difficulty



R = .17 No Relationship

## Number of People in the Room



## Number of People - The Data

# People	Avg % Stress
1	3%
2	11%
3	16%
8	46%
18	59%
85	78%

R = .73 Very Strong Relationship

# New Ninja Strategy...





Stick to a few points



OK for difficult subjects

#### Conclusions

- Cannot avoid Vapor Lock when there are a large number of people
- Controversial or thoughtful topics are best in 1 on 1 conversations
- Next study: How does the time of day impact the ability to cope with difficult conversations



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