

# Can we put Put-Put to bed now?

The Tuesday Working Group

Michael Johnson



Shonan, September 25-29, 2016

# In short

It seems yes. But that's not a deduction. Rather, based on the civilized discussions that we had, Put-Put need not be a topic of controversy as long as we

- ▶ Clarify terminology
- ▶ Avoid prejudice and
- ▶ Quietly analyse

In more detail ...

# Myths, Misconceptions and Misleading Menmonics

- ▶ Put-Put is **bad!**
- ▶ Put-Put is always there (if you look at it the right way)
- ▶ The delta misconception(s)
- ▶ Free compositions
- ▶ Put-put implies constant complement

# Myths, Misconceptions and Misleading Menmonics

- ▶ Put-Put is **bad!**
- ▶ Put-Put is always there (if you look at it the right way)
- ▶ The delta misconception(s)
- ▶ Free compositions
- ▶ Put-put implies constant complement



# Terminological clarifications

- ▶ Delta, update operation, propagation
- ▶ Atomicity
- ▶ Incrementality

# Terminological clarifications

- ▶ Delta, update operation, propagation
- ▶ Atomicity
- ▶ Incrementality (maybe a red herring)



## We reviewed

- ▶ Put-Put as **coherent** update strategy
- ▶ Put-Put as facilitating incremental analysis
- ▶ Put-Put as propagation respects “composition”
- ▶ Monotonic Put-Put (respecting certain compositions)
- ▶ Mixed Put-Put (respecting other compositions)
- ▶ The BC-criterion for mixed put-put

## We reviewed

- ▶ Put-Put as **coherent** update strategy
- ▶ Put-Put as facilitating incremental analysis
- ▶ Put-Put as propagation respects “composition”
- ▶ Monotonic Put-Put (respecting certain compositions)
- ▶ Mixed Put-Put (respecting other compositions)
- ▶ The BC-criterion for mixed put-put

Least surprise. . .

# Noteworthy (Counter-) Examples

- ▶ Internally generated attributes
- ▶ Tony's destructive inserts
- ▶ Jeremy's red shoes

## Jeremy's red shoes

- ▶ Really do violate Put-Put
- ▶ Satisfy (trivially) monotonic put-put
- ▶ Don't satisfy the BC criterion

This gives us insights into underlying reasons why Put-Put is not satisfied

## Jeremy's red shoes

- ▶ Really do violate Put-Put
- ▶ Satisfy (trivially) monotonic put-put
- ▶ Don't satisfy the BC criterion

This gives us insights into underlying reasons why Put-Put is not satisfied

And, if we want, suggestions for systems redesign. . .

# Jeremy's red shoes

- ▶ Really do violate Put-Put
- ▶ Satisfy (trivially) monotonic put-put
- ▶ Don't satisfy the BC criterion

This gives us insights into underlying reasons why Put-Put is not satisfied

And, if we want, suggestions for systems redesign. . .

And that's what it's all about!









