Tips on Conducting Survey Research

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Caveat

- No text book reference! But some of this presentation is based on the literature.
- But it is sprinkled with opinion and experience. The ‘school of hard quant-knocks’
- It is ‘suggestions’ not gospel
- Of course your supervisor can disagree!

Ultimately
it is an issue of
perspective!

Rule #1

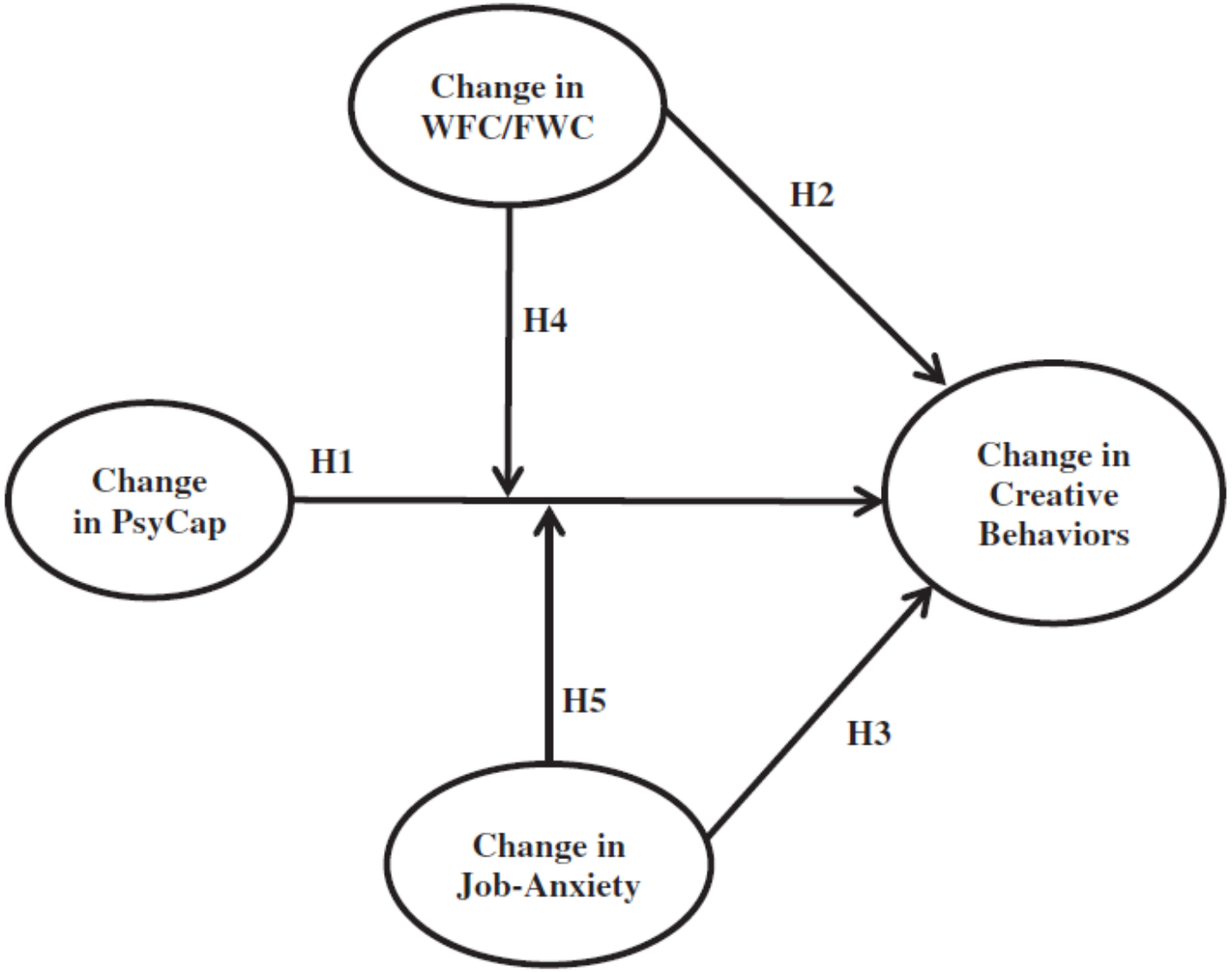
- Plan! Think. Model.
- What does the paper look like? What Research Question are you answering?
- Then think about how you can answer it with data!
- Doesn’t have to be perfect (e.g., moderator or mediator?)
- Ideally filling that ‘gap’!

Points!

- Quant researchers have an idea and collect data to test it.
- Qual researchers much more open to ‘finding something new’ and ‘asking interesting Qs’…
- Alas, just because you think your model is ‘cool’ does not mean reviewers will agree [just being honest!]

Figure 1

Study Model



Note. PsyCap = psychological capital; WFC = work-to-family conflict; FWC = family-to-work conflict.

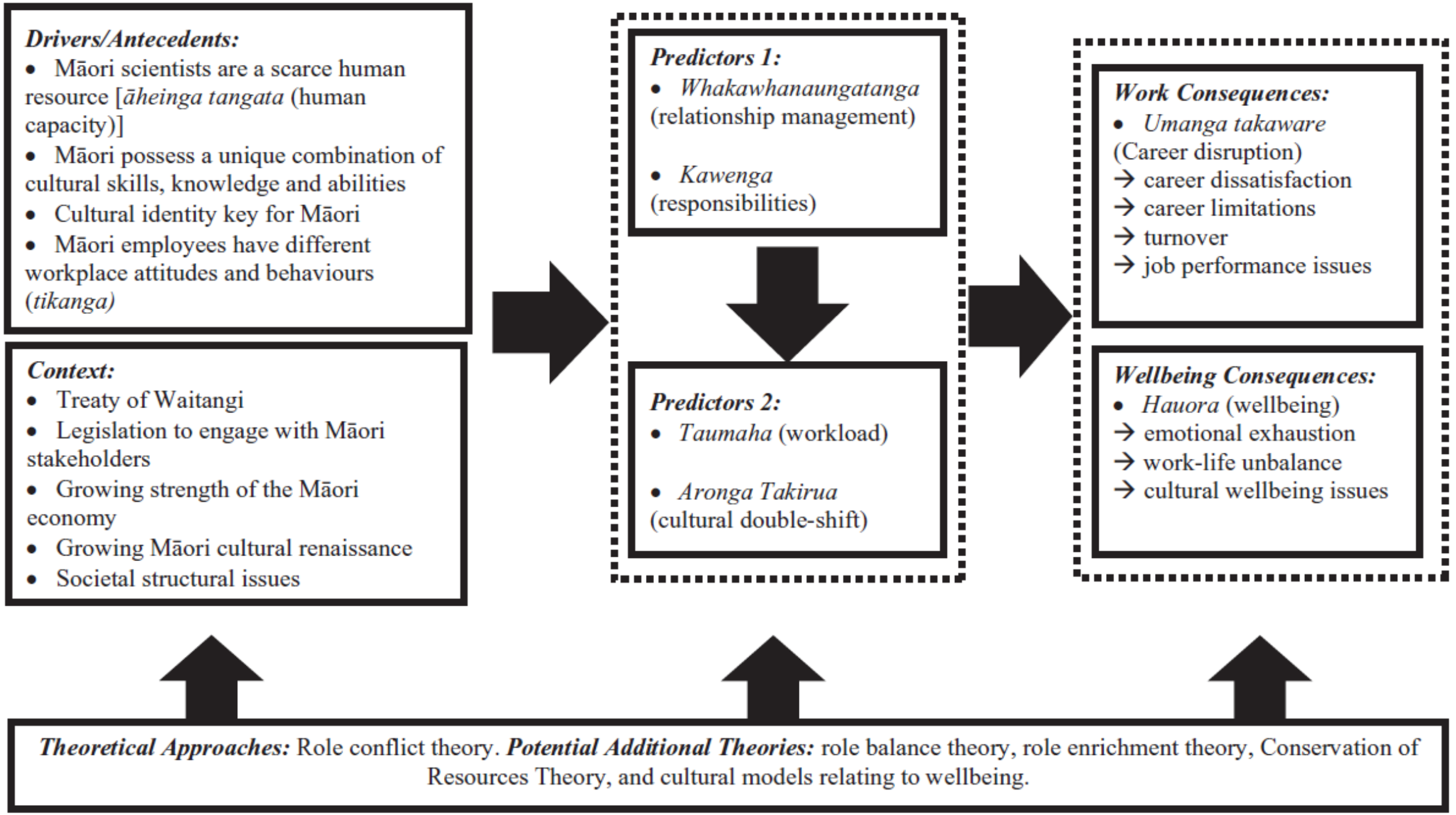


Figure 2. *Aronga takirua* (cultural double-shift model).

Rule #2

- I have my model! ☺ Done, right!?
- Wrong! It is a start!
- Next step → measures!
- How are we going to capture the constructs in our model. Do **not** 'make new one's up' if they already exist! **Risky!**
- But when necessary, do it obviously!

Job Satisfaction [3-Items]

3-items used by Haar (2013) and Haar et al. (2014):

Judge, T. A., Bono, J. E., Erez, A. & Locke, E. A. (2005). Core self-evaluations and job and life satisfaction: The role of self-concordance and goal attainment. *Journal of Applied Psychology,* 90(2), 257–268.

1. Most days I am enthusiastic about my work
2. I feel fairly satisfied with my present job
3. I find real enjoyment in my work

Turnover Intentions [4-Items]

Kelloway, E. K., Gottlieb, B. H., & Barham, L. (1999). The source, nature, and direction of work and family conflict: A longitudinal investigation. *Journal of Occupational Health Psychology*, *4*(4), 337-346.

1. I am thinking about leaving my organization
2. I am planning to look for a new job
3. I intend to ask people about new job opportunities
4. I intend to ask people about new job opportunities

Good record keeping never goes astray!

Summary

- We have Research Question/s
- We have an idea and associated model
- We even have measures to capture the parts of our model
- Data is the next issue!

Rule #3

- Cross-sectional data sux! There, I said it!
- Being honest: data is likely a s#@t issue!!
- The ‘rules’ have changed! Quality data was always important but become **much more vital** for A and A* journals. Even some B journals! [sheez!]

Common Method Variance [CMV]

[aka Common Method Bias, CMB]

"variance that is attributable to the measurement method rather than to the constructs the measures are assumed to represent"

- **CMV/CMB often fatal!**

Why care? Should I? [yes, you must care!]

- CMV [can] create a false internal consistency, that is, an apparent correlation among variables generated by their common source.
- Self-report data can create false correlations if the respondents have a propensity to provide consistent answers to survey questions that are otherwise not related.

Why you must care!

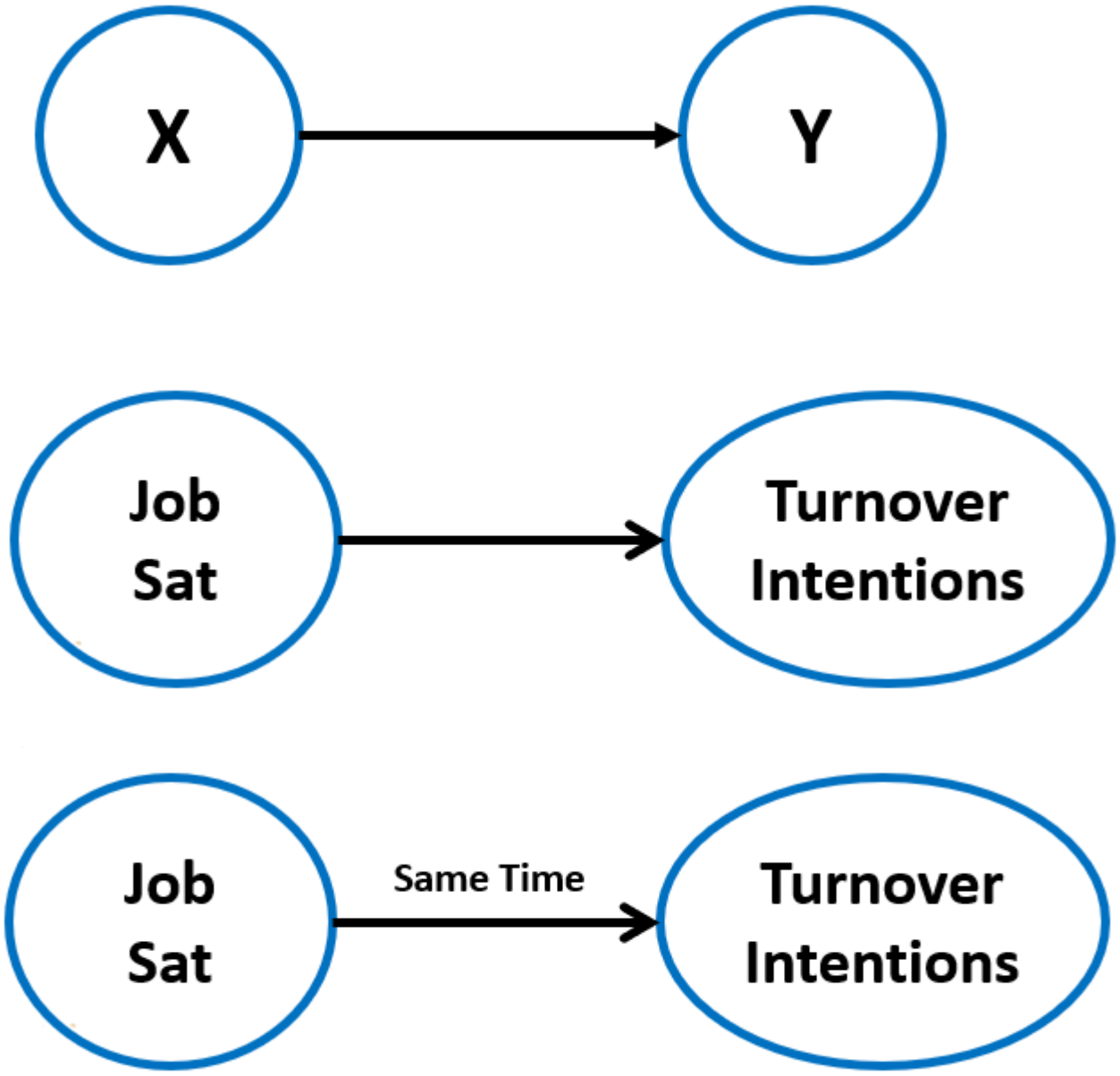
- Thus, common methods can cause systematic measurement errors that either inflate or deflate the observed relationships between constructs, generating both Type I and Type II errors.
- Does it have a major effect? **MHO: Probably not!**
- The literature and statistical analyses might be summed as “yes, CMV is real. Its minor. Doesn’t do much!”
- But its like the 11th Commandment for Reviewers…

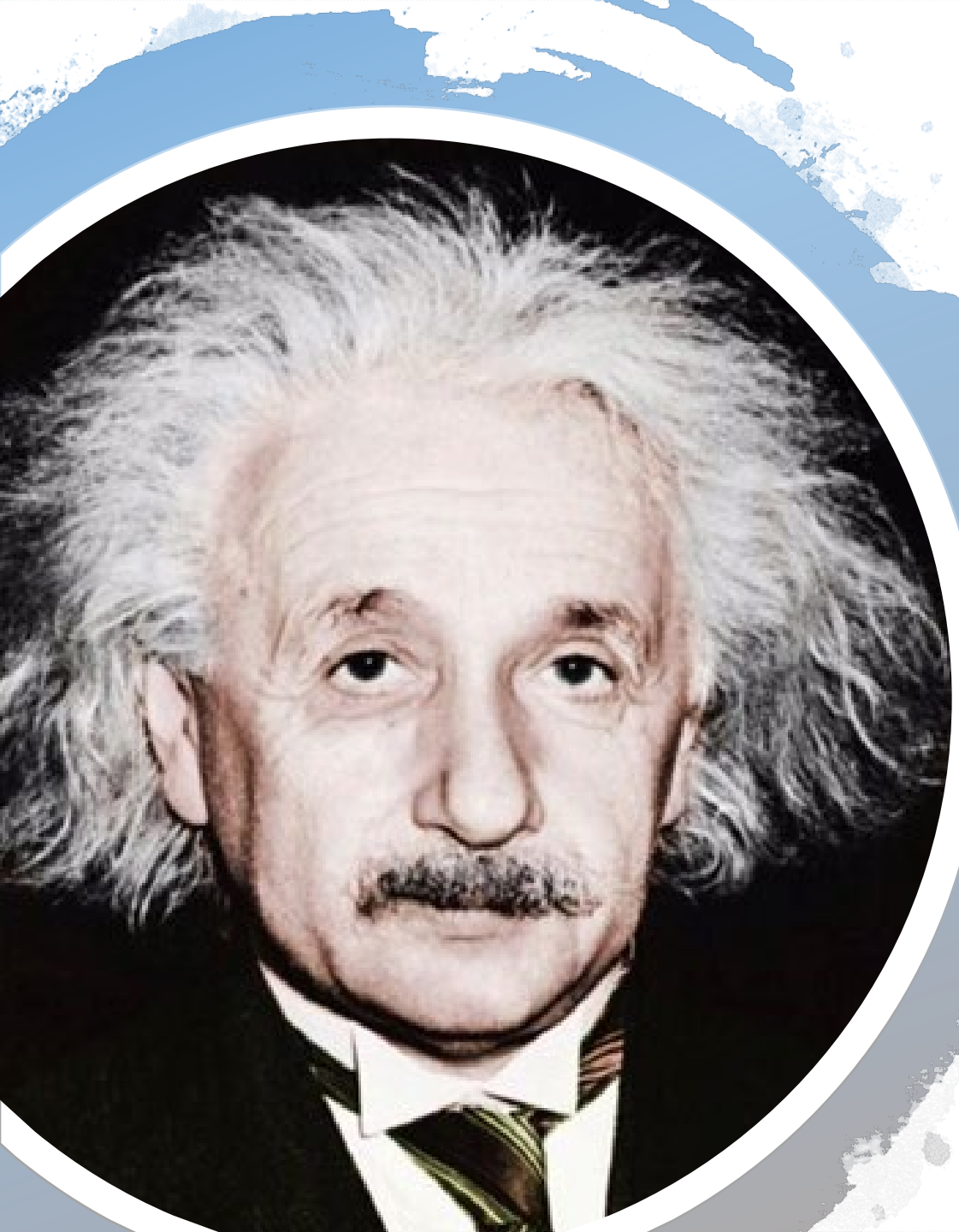
Thou shall not use single-source/cross-sectional data.

Why you must care!

- Self-report data can create false correlations if the respondents have a propensity to provide consistent answers to survey questions that are otherwise not related.
- **Consider a new construct and your finding of X → Y (r= .20, p< .05). Away you go! Published! But in future studies you fail to replicate… Because the true correlation was r= .16, p= .061)… Damn!**

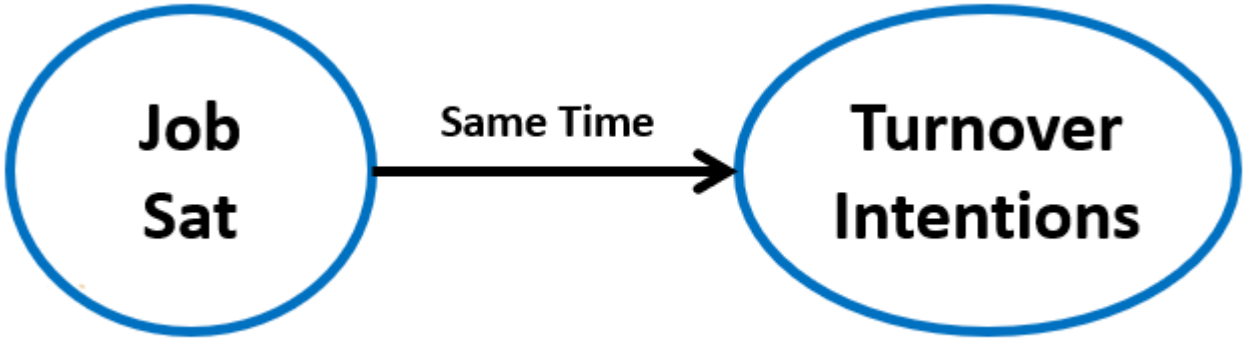
Potential CMV Example





Alternatively, [simplistically] it is an issue of time!

Potential CMV Example



"Gawd, I hate this job. It sucks! [**scores survey**].

…oh yeah, I'd be leaving alright, for sure!"

[**scores survey**].

Then says: "Well, I would if I could. Damn that mortgage/ student loan/ recession…☹"

CMV universally hated?

Scholarly views of CMV **do** differ!

JAP Editor from the 80s… “[if] no variables that are measured independently of the questionnaire, I am biased against the study”

Others say it is overstated and might even be an “urban legend” (Spector, 2006) [→ measurement bias].

CMV universally hated?

Imagine writing:

"while data was collected at a single time, and thus could have CMV issues, CMV is likely "an exaggeration and oversimplification of the true state of affairs" (Spector, 2006, p. 230)".

- **Good luck with that!**
- Personally I think reviewers have become hard-a$$ Sherriff's without acknowledging the law is an a$$!

CMV universally hated?

Posdsakoff et al. (2003) stated that in behavioral research, “common method variance is often a problem and researchers need to do whatever they can to control for it” (p. 900).

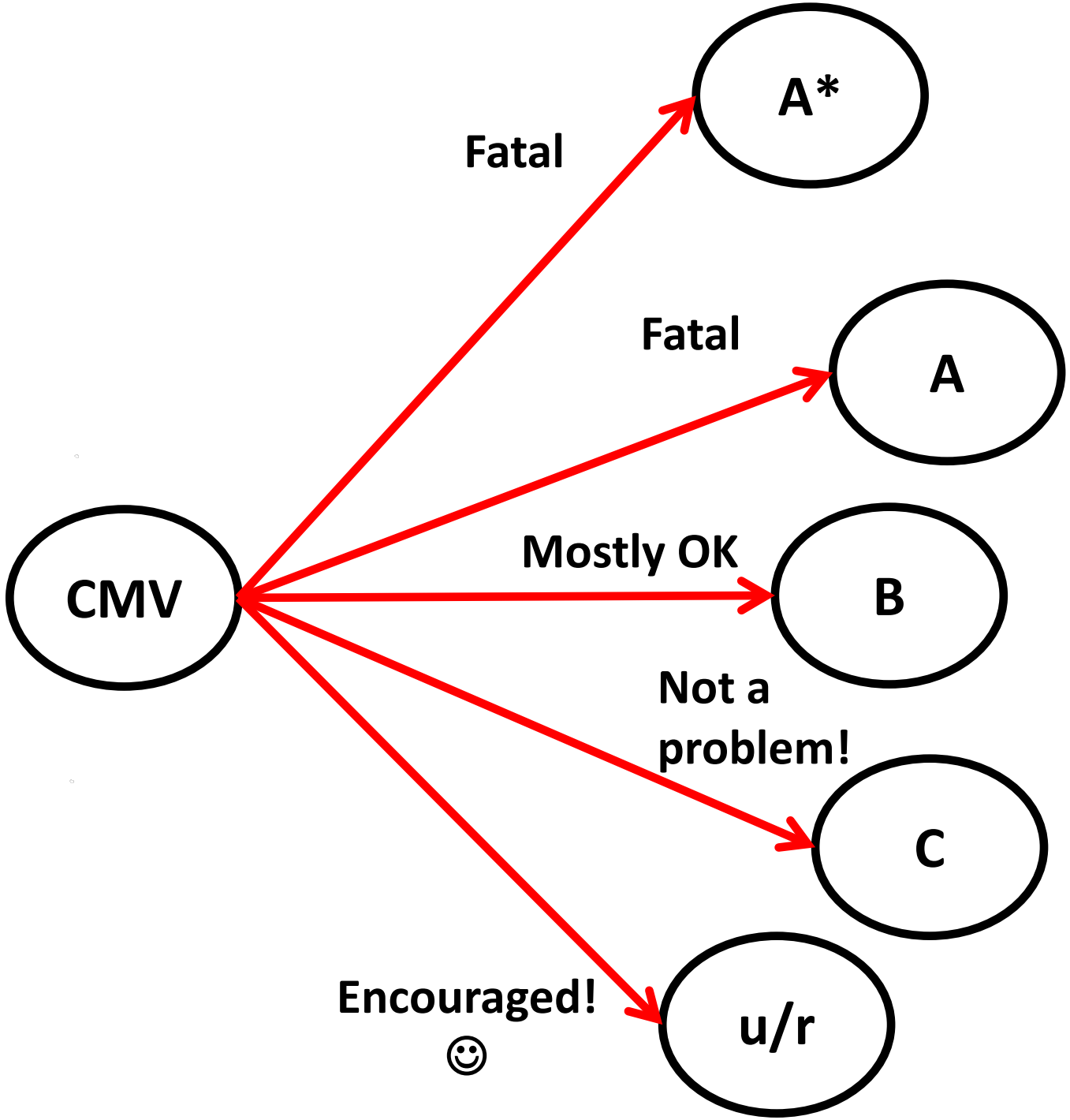
CMV universally hated?

While some may see Spector (2006) and the “urban legend” comment as a ‘get out of jail card’… I am yet to see a quality journal allow the urban legend defence! ☹

So, we can’t ignore it. And we really can’t defend it [much…]

But, how **important** is it?! [not statistically but career-wise…]

The issue of CMV in Publishing [my opinion]



Ultimately. It doesn't matter what <u>you</u> think!

☹

Journals have an issue with CMV. Period!

To succeed in academia, you need to be aware of CMV and solutions…

And yes, the easiest ‘solution’ is to target C and B journals!

I have an HR Manager doing her PhD. B journals are fine for her! But not an easy solution for academic track PhD students!

And might end up worse than the tears!

So.
Given the focus and importance…

Considering issues around CMV, should be seen as doing good science!
☺

Option 1

(Podsakoff et al., 2003)

#1. Separate Data Sources

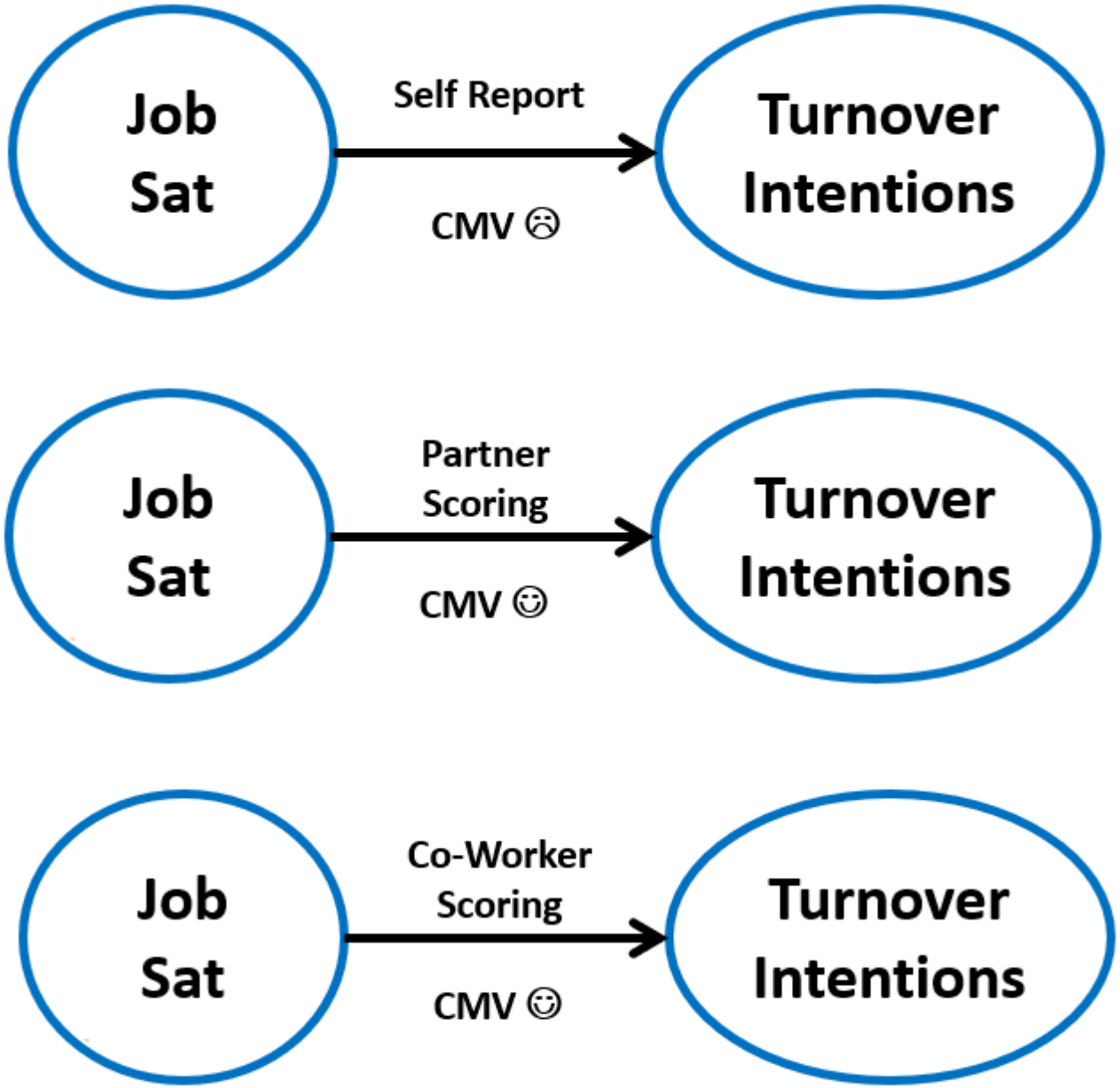
Avoid any potential CMV in the **research design stage** by using other sources of information for some of the key measures

If possible, the in/dependent variable/s should be constructed using information from different sources than the independent variables.

The hardest but best solution!

☺

A few examples…



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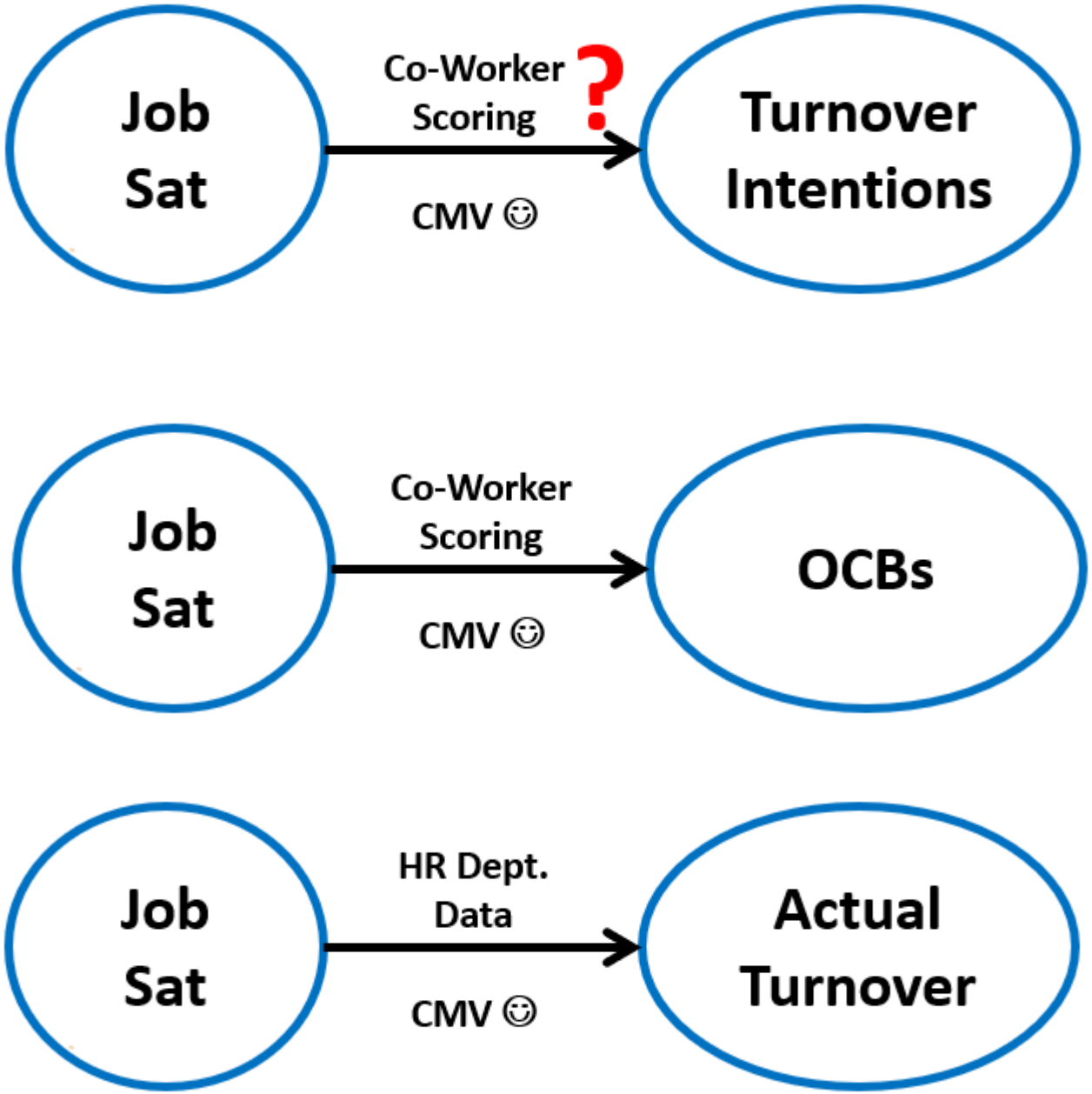

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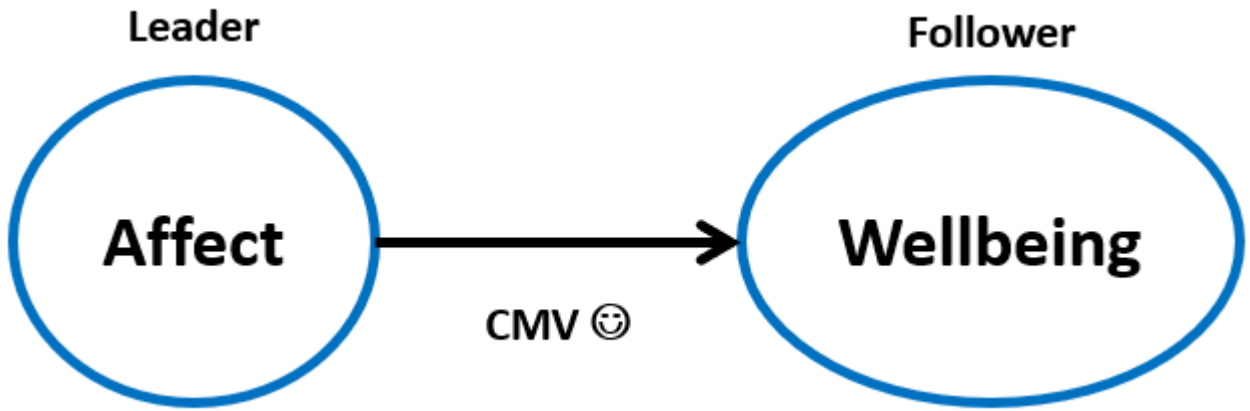

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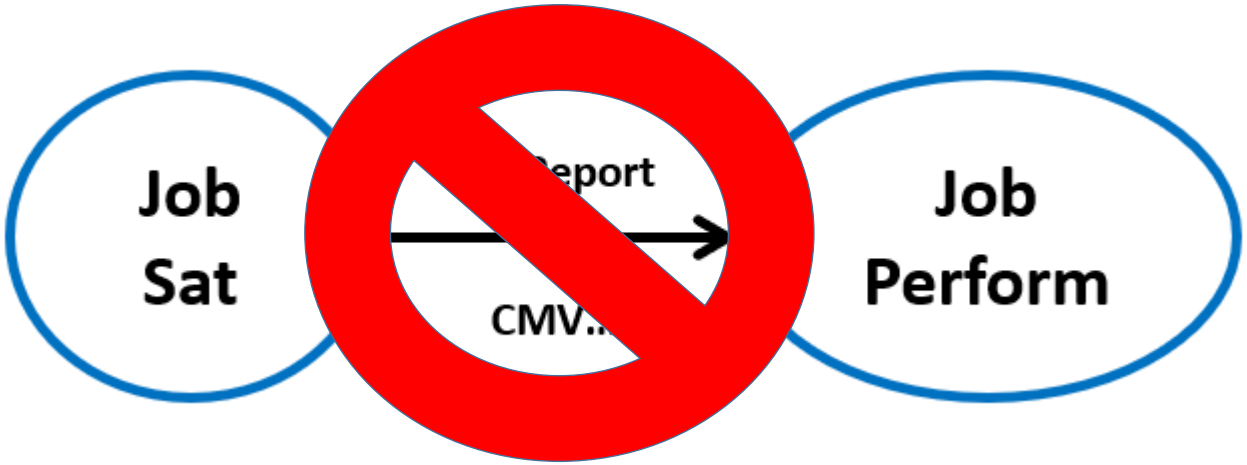
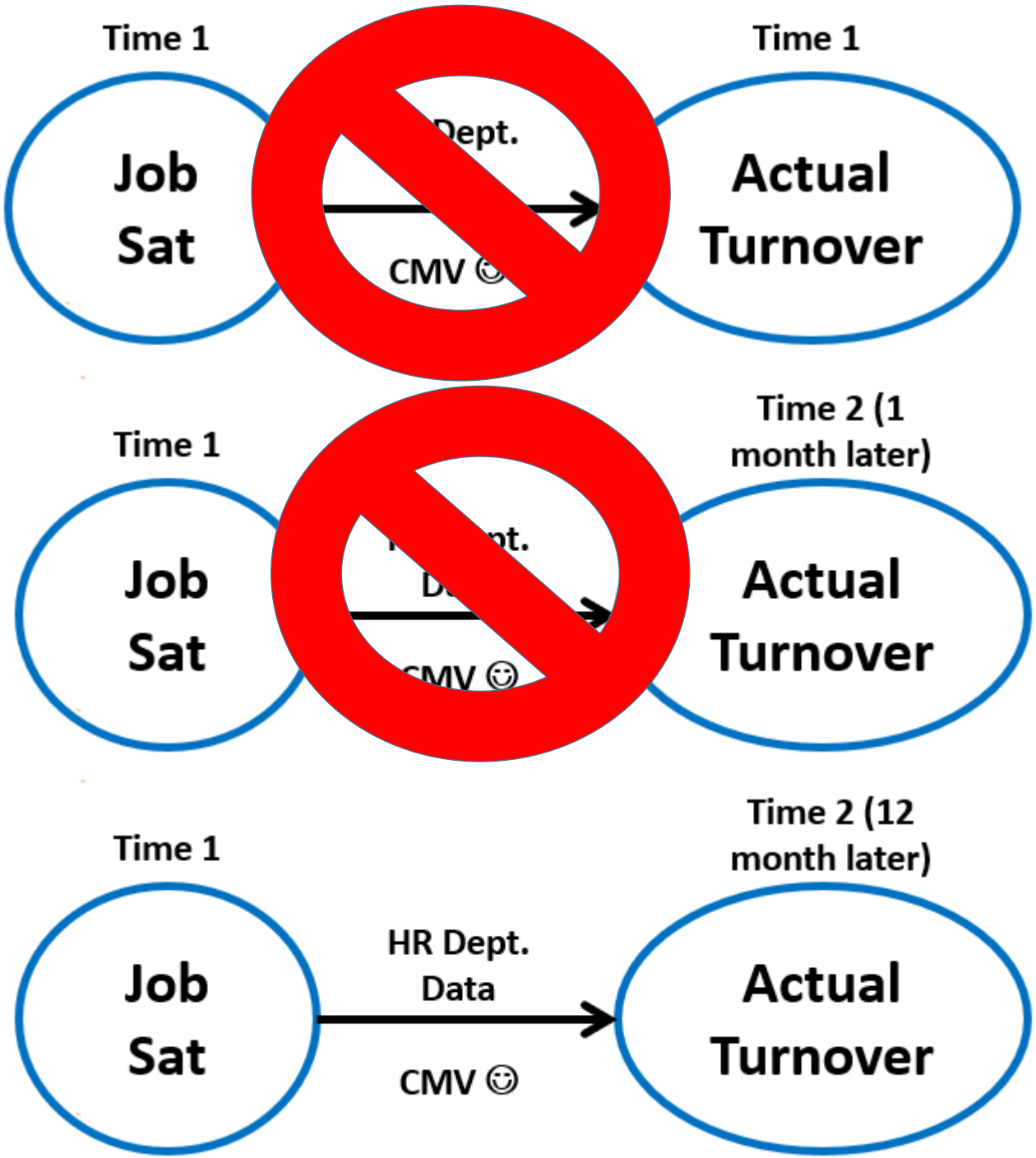


Brings in the 80/20 rule!

A few examples…



Option 2.1

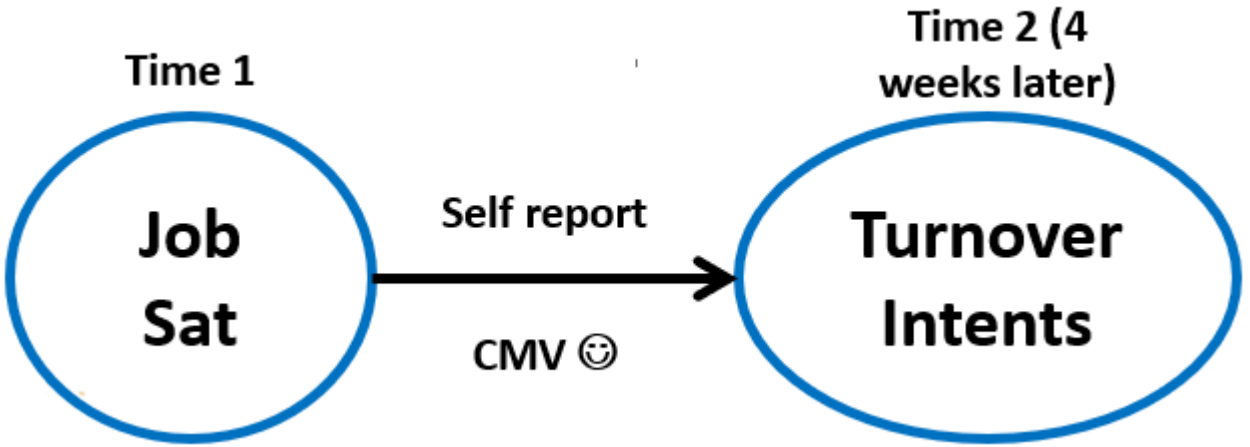
(Podsakoff et al., 2003)

#2. Measurement of Separation

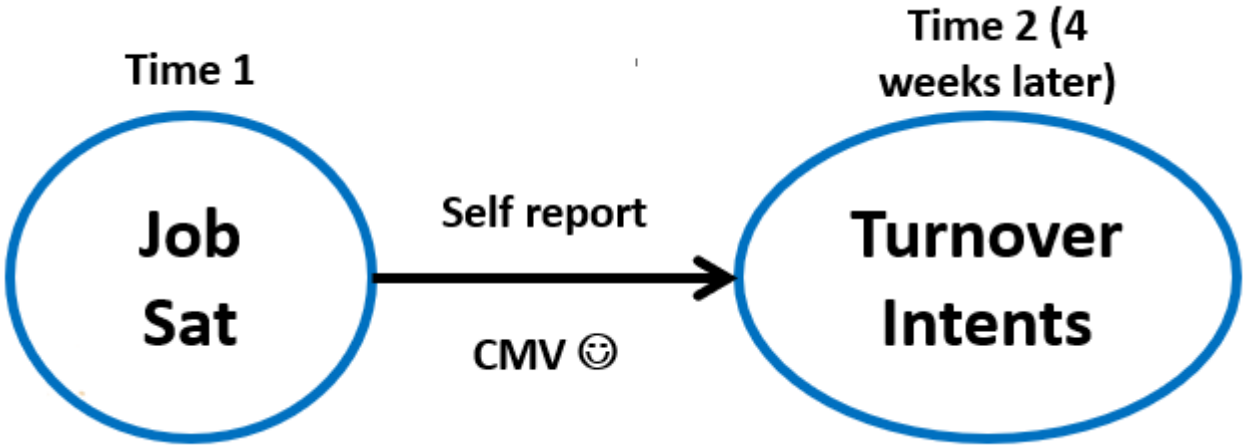
Separation of measurement! Options: **temporal** (time-delay, e.g., 1/4 week/s etc.), **psychological** (cover story), or **proximal** separation (e.g. different room) or **methodological** (e.g. computer v. paper v. face-to-face interview. Separation= IV [one] and DV [different]

I have done the temporal separation a lot. It is a very good strategy! As good as 'other source' [the gold standard]??? No!!! But a 'silver standard' [2nd place!]!

An example…


Time 1
Time 2 (4 weeks later)
Job Sat
Self report
CMV ☺
Turnover Intents

Clarifying the example…



"Gawd, I hate this job. It sucks! [**scores survey**].

4 weeks later…

…oh yeah, I'd like to leave but don't think I can!"

[**scores survey**].

Reviewer thoughts: more confidence in your data…

Option 2.2

(Podsakoff et al., 2003)

#2. Measurement of Separation

So, temporal separation is likely the most relevant and most common!

I **personally** think that psychological separation [with an elaborate cover story] or proximal separation [moving respondents to a different room] or methodological separation via IV survey on a computer but then the DV survey on paper is likely to be **less effective.** Perhaps the DV as a face-to-face interview has potential!? But labour intensive and at the same time…some will argue CMV still exists! [sigh!]

All uncommon in the literature!

Option 3

(Podsakoff et al., 2003)

#3. Procedural Remedies

A number of procedural remedies in designing and administering the questionnaire, from mixing the order of the questions to using different scale types, can reduce the likelihood of CMV.

I'd suggest this is almost a given! And thus, as a 'solution' its **massively** short of Options 1 and 2!! i.e., limited benefits!

Option 4

(Podsakoff et al., 2003)

#4. Statistical remedies!

Thought: Why bother designing a great study when a stats program will 'fix' any issues! :-/ [cray cray]

*Harman's One Factor Test. Well used.

*Lindell and Whitney (2001) marker variable

*CFA (SEM)!

*Common Latent Factor + Common Marker Variable

All popular! But, ultimately, not as good as options 1 or 2! I think 'quality journals' would see this as a 'lazy persons solution' [and yeah, I'm guilty too! ☹]. The efficacy of this approach is declining…

Other Solutions

- Control for Social Desirability or affectivity. But, if the same time, then CMV also!? Sigh! ☹

- More data? Having multiple studies might attenuate potential issues around 'false correlations'. But, some might suggest it occurred in all datasets!? But, that said, better than a single data set, right? [and has the benefits of helping attenuate *other* issues around statistical tests…]
- **I like multiple data sets in articles!** ☺

Better Solutions

- Repeat measure (same data twice)
- 3 times data (longitudinal) much better → allows for Latent Growth Modeling
- Moderation better than mediation!
- Two- and three-times data allows for better modelling though:
- X(t1) → M(t1) → Y(t2) [better than cross-sectional). But best:
- X(t1) → M(t2) → Y(t3)
- Again, mediation with single source data seems to be a **red rag** to a bull (reviewers!). Avoid in A and A* journals. **OK if one study of many.**

Summary

- Statistical remedies are a cop-out.
- Data separation is the gold-standard → so aim for it.
- Be aware that sometimes separating data is **not possible** e.g., org demands! That's okay! ;-) Try! ☺
- Also, see if there is a way to get org data? HR data? Or manager data? Partner data? System needs to be anonymous but accurate!
- Note: these 'options' can create ethical issues… [sigh!]
- Yes – these solutions are **not easy!** ☹

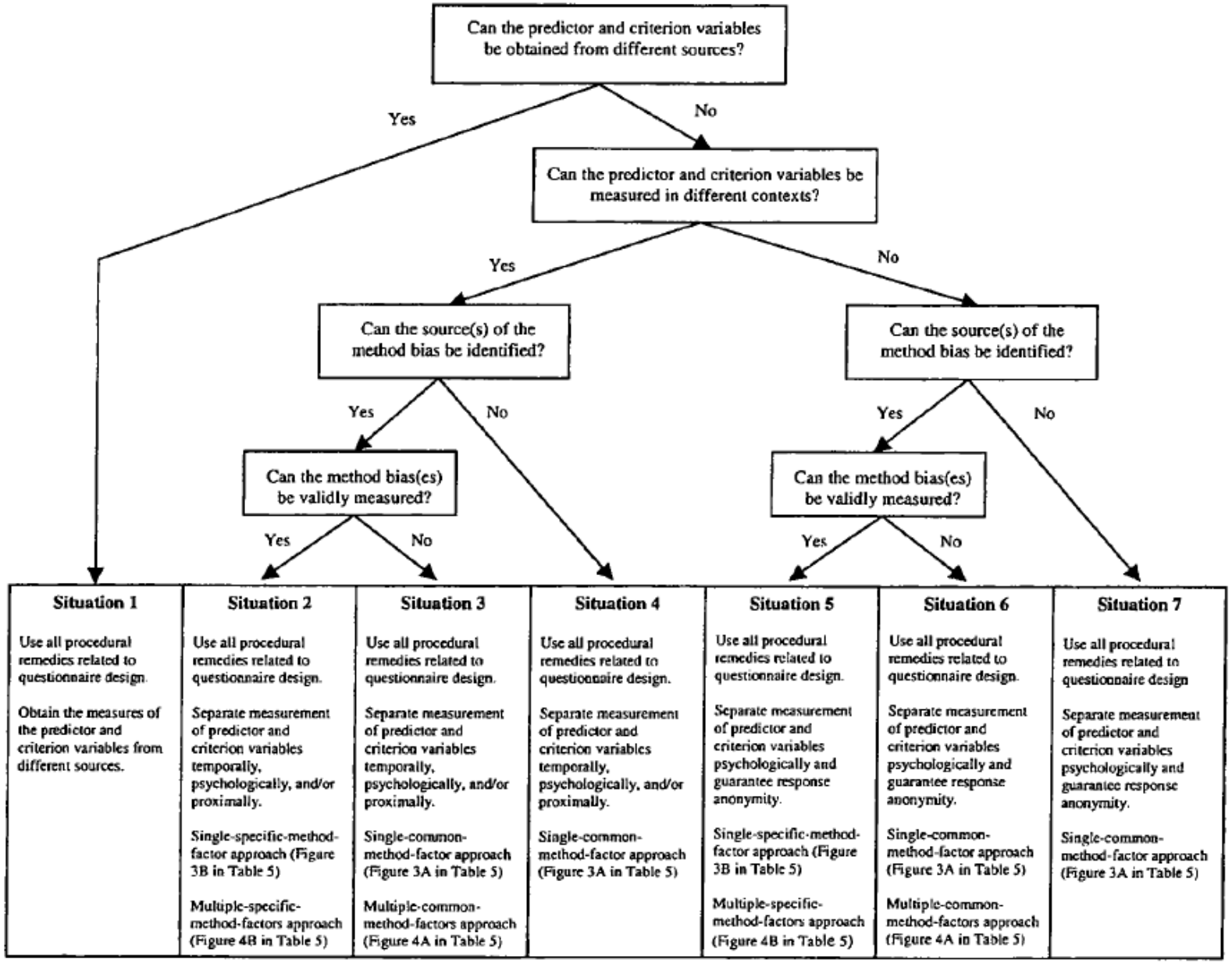
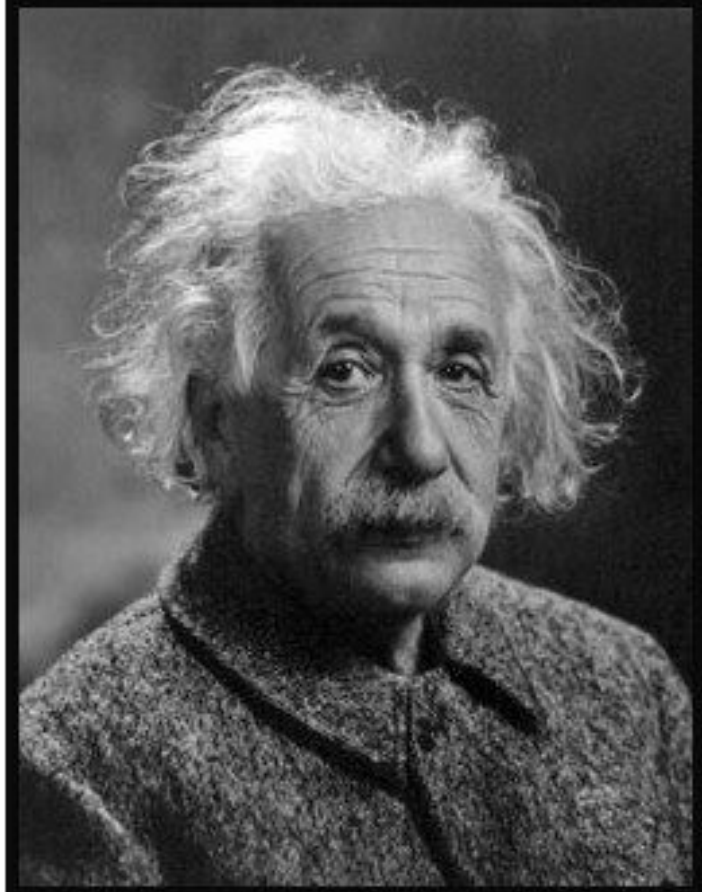


Figure 1. Recommendations for controlling for common method variance in different research settings.

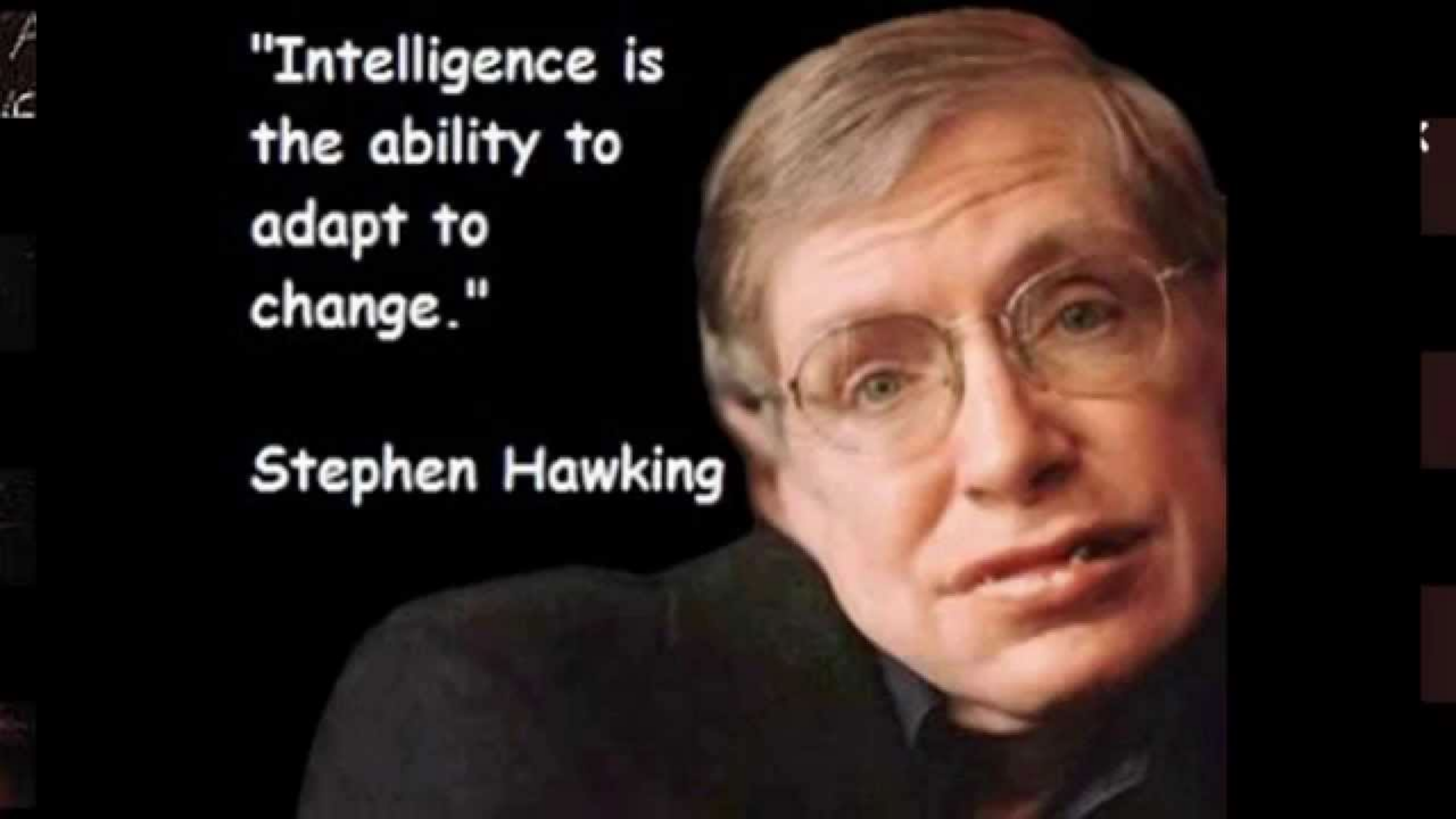
THE ROLLING STONES
TIME IS ON MY SIDE
b/w CONGRATULATIONS
LONDON
45-9708
LONDON RECORDS
TIME IS ON MY SIDE
(Meade; Norman)
Prod. by Andrew Loog Oldham for Impact Sound
Pub:
Rittenhouse
Music BMI
Maygar Publ.
Co. BMI
Time: 2:50
45 LON 9708
THE ROLLING STONES
DR-34146
Made in U.S.A.



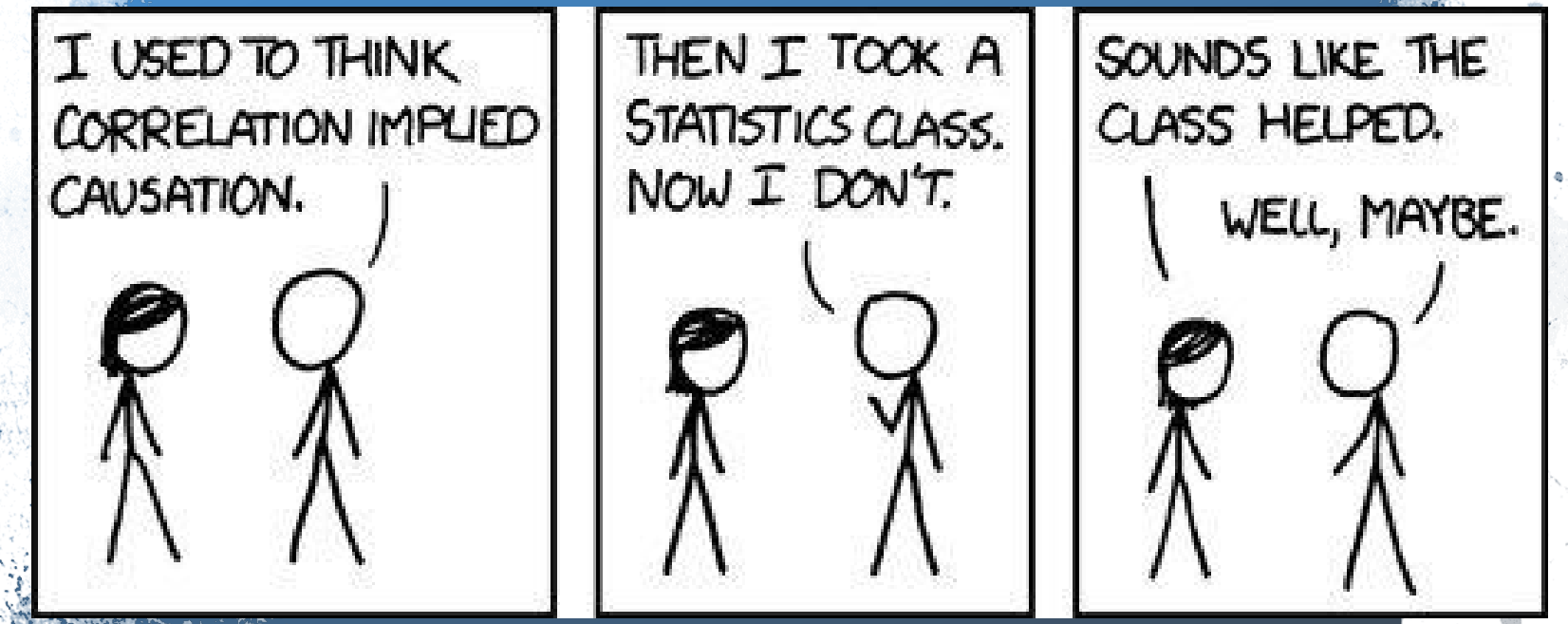
The distinction between the past, present and future is only a stubbornly persistent illusion.

(Albert Einstein)

izquotes.com


"Intelligence is the ability to adapt to change."
Stephen Hawking

Questions?


I USED TO THINK CORRELATION IMPLIED CAUSATION.
THEN I TOOK A STATISTICS CLASS. NOW I DON'T.
SOUNDS LIKE THE CLASS HELPED.
WELL, MAYBE.

Questions?
Email me:
jarrod.haar@aut.ac.nz