

The Problem of Motivation in Developmental Assessment Centers



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Overview



- Why motivation may be a problem in DACs.
- An empirical study in an extreme test case:
 - Student DAC
- Findings:
 - How much variance is there?
 - Who is motivated?
 - When are they motivated?
 - How does motivation affect assessor ratings?
- Implications

Does motivation matter?

- When we talk about motivation in ACs, we usually mean the **trait** of motivation.
 - Motivation to perform well at work, to succeed, to get promoted, etc.
- But what about motivation **within** the AC itself?
 - Motivation to perform well in exercises, to engage in tasks, to obtain useful feedback, etc.
- Historically, we've assumed that AC motivation doesn't vary much either **between** or **within** participants.

Does motivation vary?

- Often argued that ACs are **maximal performance** measures. (Ployhart, Lin, & Chan, 2001; Marcus et al., 2007; Sackett, Zedeck, & Fogli, 1988; Smith-Jentsch, 2007)
- If so, **all** participants should be highly motivated:
 - All participants know they are being evaluated.
 - They (presumably) value the outcome of the AC and will exert effort to perform well.
- And motivation should be **constant**.
 - ACs are relatively short – can sustain motivation.

Are ACs really maximal measures?

- Some research supports the idea that ACs **can** elicit maximal performance. (Marcus et al., 2007; Ployhart et al., 2001).
- But they may **not necessarily** do so. (e.g., Sackett et al., 1988).
 - E.g., ACs that are not transparent elicit typical performance.
 - Seems likely to depend on the AC.
- If an AC is not a maximal measure, that leaves room for motivation to vary.

Why might motivation vary?

- In selection ACs, the outcome (job, promotion) is probably pretty motivating!
 - Still room for individual differences (e.g., applicant reactions).
- In **developmental** ACs, it's not so clear:
 - Some are genuinely motivated by opportunity for feedback.
 - But some DACs are required (or “strongly encouraged”).
 - Accountability for DAC performance varies.
- DAC participants may be motivated to **attend**, but not necessarily to **engage**.

Does it matter?

- Generally, motivation influences performance!
- In DACs, performance drives feedback.
 - If low motivation → poor performance, feedback may be **inaccurate**.
- Inaccurate feedback has consequences:
 - Not likely to be accepted.
 - Erroneous development plans / decisions.
 - Not likely to improve performance!

What about *within* the DAC?

- Might motivation vary from exercise to exercise?
- Motivation may decline (or increase) over the course of the day.
 - Bycio & Zoogah (2002) found a small effect.
 - There may be individual differences (e.g., more conscientious participants sustain motivation).
- Some exercises may be more engaging than others.

Do those differences matter?

- If motivation → performance, then differences in motivation → differences in performance.
- Potential (partial) explanation for exercise effects.
- Implications for exercise design and administration.
 - How can we get participants engaged and keep them that way?

Uncharted Territory

- Does motivation vary? If so, how much?
 - Between participants?
 - Within participants?
- Who is motivated?
 - Can we predict who will engage in and benefit from a DAC?
- When are they motivated?
 - Can we design exercises and ACs to improve motivation?
- Does motivation affect outcomes?
 - Performance ratings?

Current Study

- Examined variation in motivation **between** and **within** participants in a DAC for undergraduates.
 - DAC was required as part of a course – lots of potential for variance in motivation.
- Assessors rated motivation after each exercise.
 - Allows us to examine both between-persons and within-persons variance.
 - Assessor *perceptions* of motivation.

Questions & Hypotheses

- How much variance in motivation is between participants? Within participants?
 - Between-participants = individual differences in motivation.
 - Within-participants = characteristics of exercises affect motivation.
 - And/or assessor idiosyncrasies.

Questions & Hypotheses

- Who is motivated?
 - Individual differences should predict between-persons motivation:
 - Conscientiousness
 - Learning goal orientation
 - Attitude toward development experiences
- When are participants motivated?
 - Does exercise type affect motivation?

Questions & Hypotheses

- Does motivation affect outcomes?
 - Motivation should be related to assessors' ratings of participants' performance.

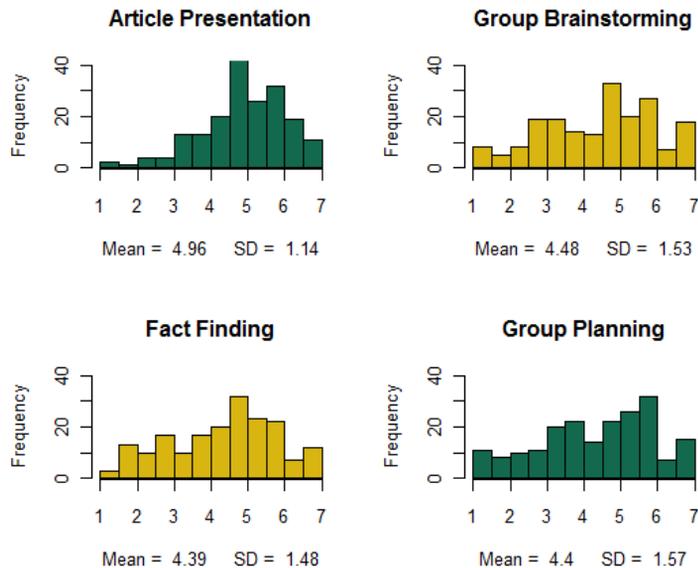
The DAC

- Undergraduate psychology majors.
 - Total $N = 222$
 - N s for individual analyses vary based on missing data.
- Participated in four exercises, then received written developmental feedback.
 - Assessed by video – delayed feedback.
- Assessed on three dimensions.
 - Communication, teamwork, & critical thinking.

Other Variables

- Survey before participation:
 - Big Five
 - Learning Goal Orientation
 - Attitude toward Development Experiences
- Assessors rated participants' motivation following each exercise.
 - 8-item scale, new for this study.
 - 4 motivation measurements per participant.
 - Internal consistency: $\alpha = .94- .95$
 - Interrater reliability: $r = .42$ (*separate sample, $N=38$*)

Distributions of Motivation



How much does motivation vary?

- Multilevel analysis.
 - Used lmer package in R.
- Intraclass correlation coefficient for motivation: $r = .18$.
 - 18% of the variance in motivation is **between** participants.
 - This is a **significant** amount of variation – including between-persons variation improves the model, $p < .01$.
 - 82% of the variance in motivation scores is **within** participants.
 - But this includes assessor effects.

Who is motivated?

- Fixed effects @ Level 2: predicting individual participants' *average* motivation across exercises:
 - **Attitude toward developmental experiences** positively predicts motivation.
 - $\beta = 0.29, p < .05$
 - Other between-participants variables (learning goal orientation and conscientiousness) did not predict motivation.

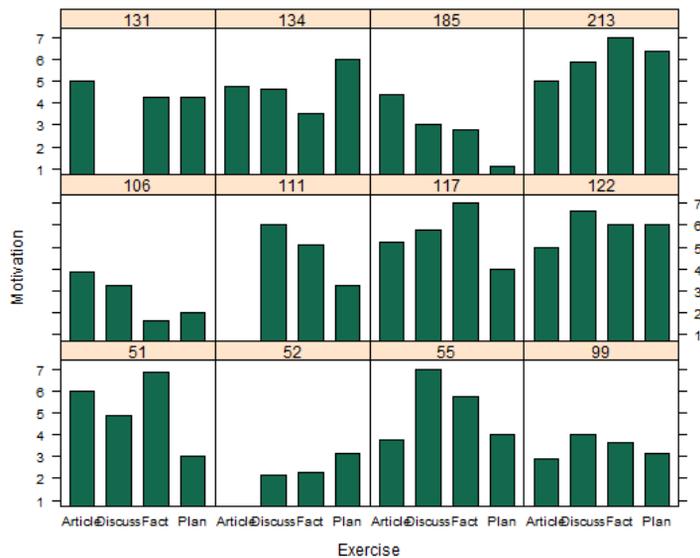
When are participants motivated?

- Fixed effects @ Level 1: predicting participants' motivation in specific exercises:
 - Significant main effects for each exercise.
 - Intercept = Article Presentation
 - Fact Finding: $\beta = -0.64, p < .05$
 - Brainstorming: $\beta = -0.49, p < .05$
 - Planning: $\beta = -0.46, p < .05$
 - Participants were most motivated in the **Article Presentation** and least motivated in the **Fact Finding** exercise.

But it's not that simple...

- Significant random effects for both exercise and attitude toward developmental experiences.
 - Random effects = relationship between a predictor and an outcome may be different for different people.
 - Interpretation: different participants had different patterns of motivation.

Varying Patterns



Motivation & Performance: Critical Thinking

- ICC = 0.14
 - 14% of variance is between persons.
 - BIG assessor/exercise effects!
- Fixed effects:
 - Perceived motivation predicts performance:
 - $\beta = 0.39, p < .05$
 - Smaller effects for exercise:
 - Most difficult: Article Presentation & Brainstorming
 - Fact Finding & Planning were significantly easier.
 - No effects for goal orientation, conscientiousness.
 - Very small effect for ADE.
- No random effects.

Motivation and Performance

	Critical Thinking	Oral Communication	Teamwork
ICC	0.14	0.09	0.17
Motivation effects?	$\beta = 0.39, p < .05$	$\beta = 0.39, p < .05$	$\beta = 0.44, p < .05$
Exercise effects?	AP & GB most difficult; FF and GP significantly easier.	AP most difficult; GB least difficult.	FF less difficult than the others.
Individual difference effects?	None	None	None
Random effects?	None	Motivation	Motivation

What can we take away from this?

- Assessors perceive lots of variance in participants' motivation.
 - Some of this variance is related to participants' own attitudes toward developmental experiences.
 - Some exercises seem to be more motivating than others...
 - ... and some exercises produce more varying motivation than others.
 - Some variance, though, is due to assessor factors.

What can we take away from this?

- Assessors' ratings of performance are closely tied to their perceptions of motivation.
 - Can't tell causal order from this study.

Caveats

- Quality of assessor ratings in this DAC may be questionable.
 - Very high ratio of within-persons variance to between-persons variance.
 - Some, but not all, can be attributed to exercise factors.
 - However, some variance is explained by participant factors.
- Sample represents an extreme test case for varying motivation.
 - More low-motivation participants than we'd expect in a working sample.

Implications

- Assumption that all participants sustain high motivation throughout a DAC is clearly not warranted here.
 - Assessors saw the full range of motivation.
- The best predictor of participants' motivation was their attitude toward development in general.
 - Most conceptually similar of our predictors.
 - A person who generally views development experiences as valuable is most likely to display high motivation in the DAC.

Implications

- Some exercises seem to be more motivating than others.
 - Motivation was significantly higher in the individual exercise than in the group exercises.
 - Importance of accountability?
- Assessors view performance and motivation as linked.
 - Participants' actual motivation may impact their scores.
 - So may assessors' assumptions about motivation – we may need to consider this in training.

Future Directions

- Replicate & resolve methodological issues.
 - Obtain independent ratings of motivation.
 - Train raters on a behavioral definition of motivation.
- Explore other DAC contexts.
 - What is the range of motivation in a typical managerial DAC?
- Examine exercise characteristics that may affect motivation.
 - And group characteristics – emotional contagion (Sy, Côté, & Saavedra et al., 2005).

Questions? Comments?



Thank you!