

GROWTH

POTENTIAL

Practical HR Analytics with Maxim

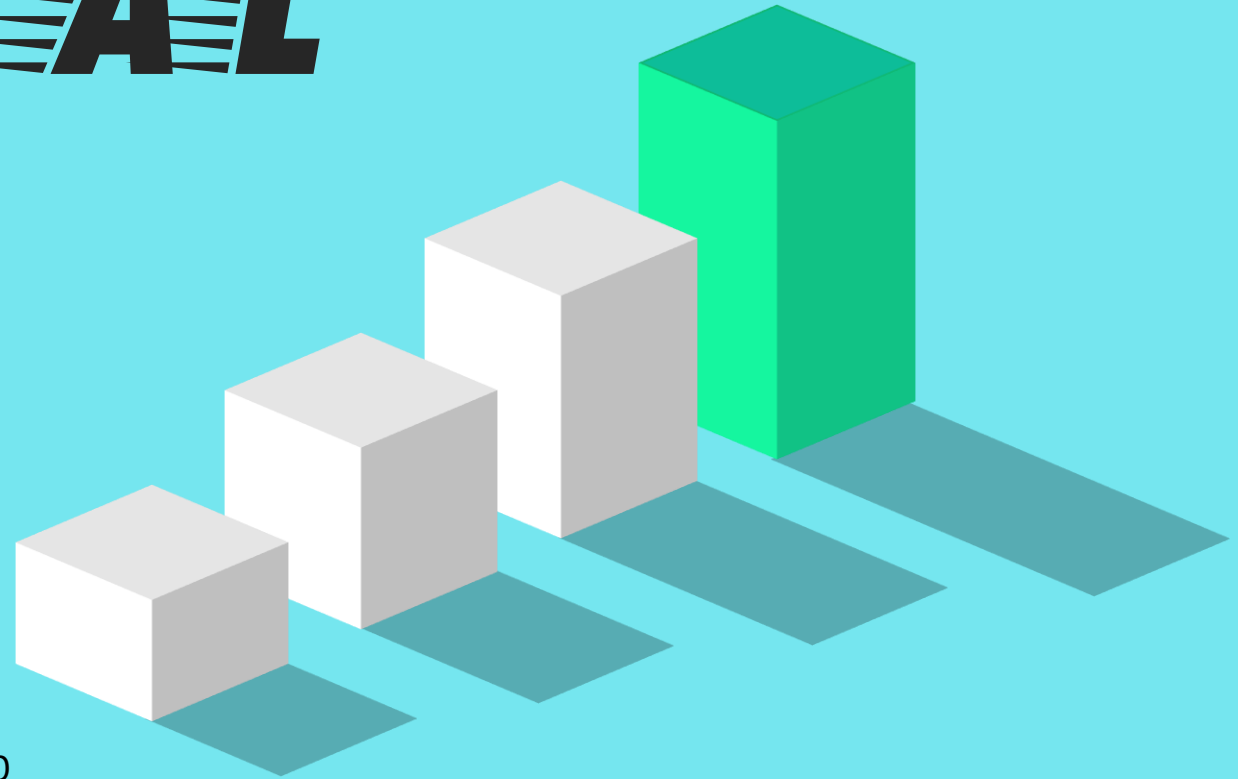
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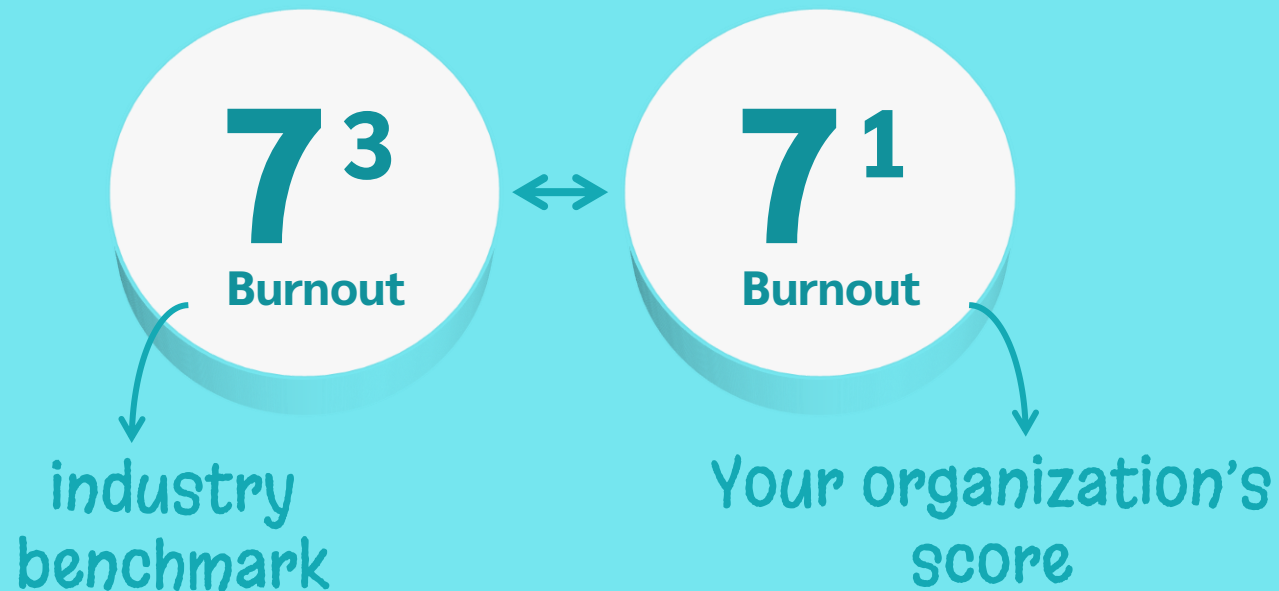
Code and slidedeck at:

`https://github.com/iLLucionist/growthp`



The Seal of Approval

Problem: what should we advise organizations based on employee research?



Now what !?

Why industry benchmarks are not really meaningful

1.

You don't know whether your score is meaningfully higher or lower than the benchmark

2.

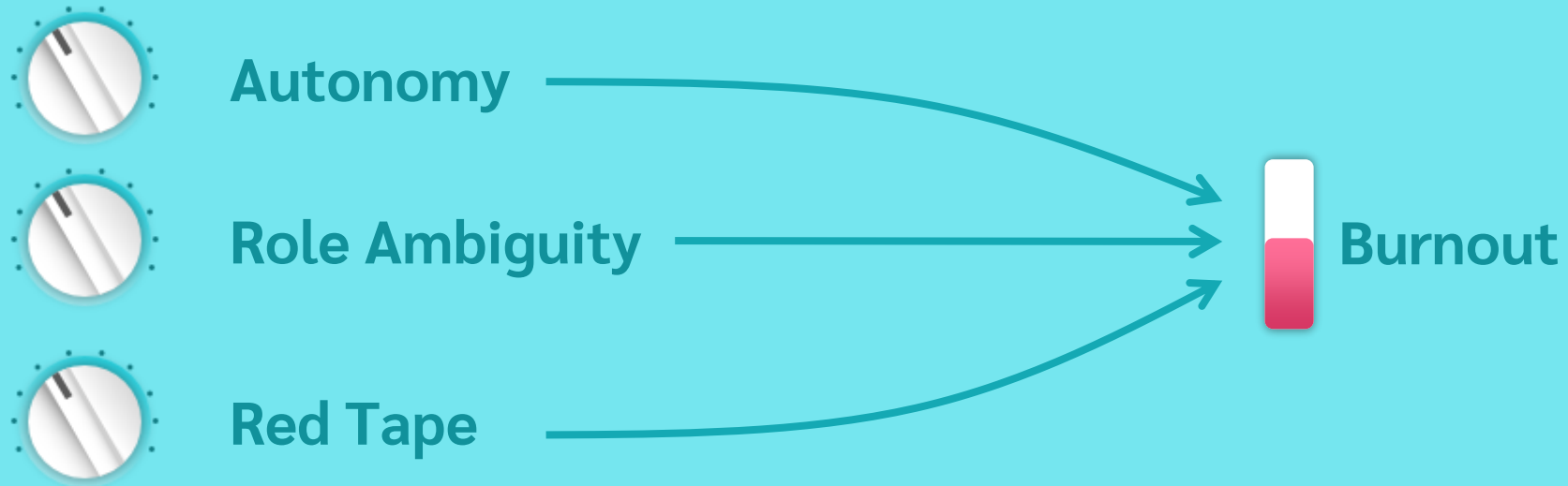
You don't know how you may improve the outcome

3.

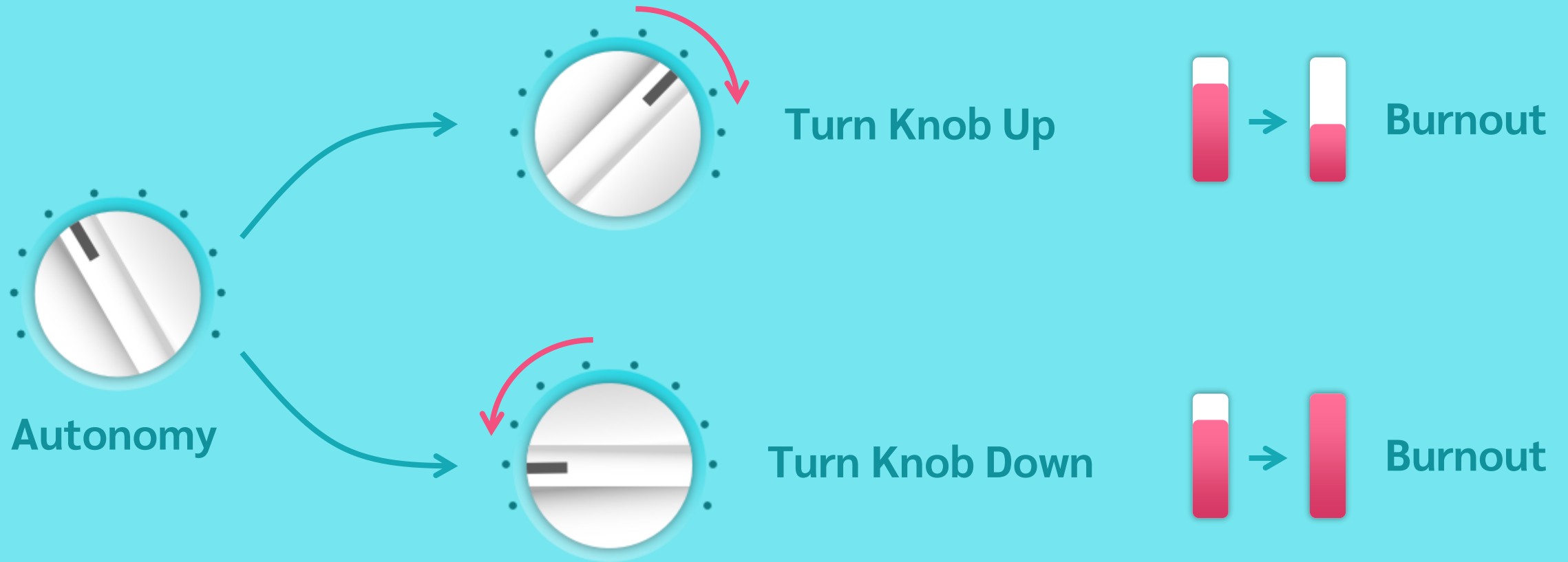
Is knowing your absolute score really all that meaningful?

Finding Control Knobs

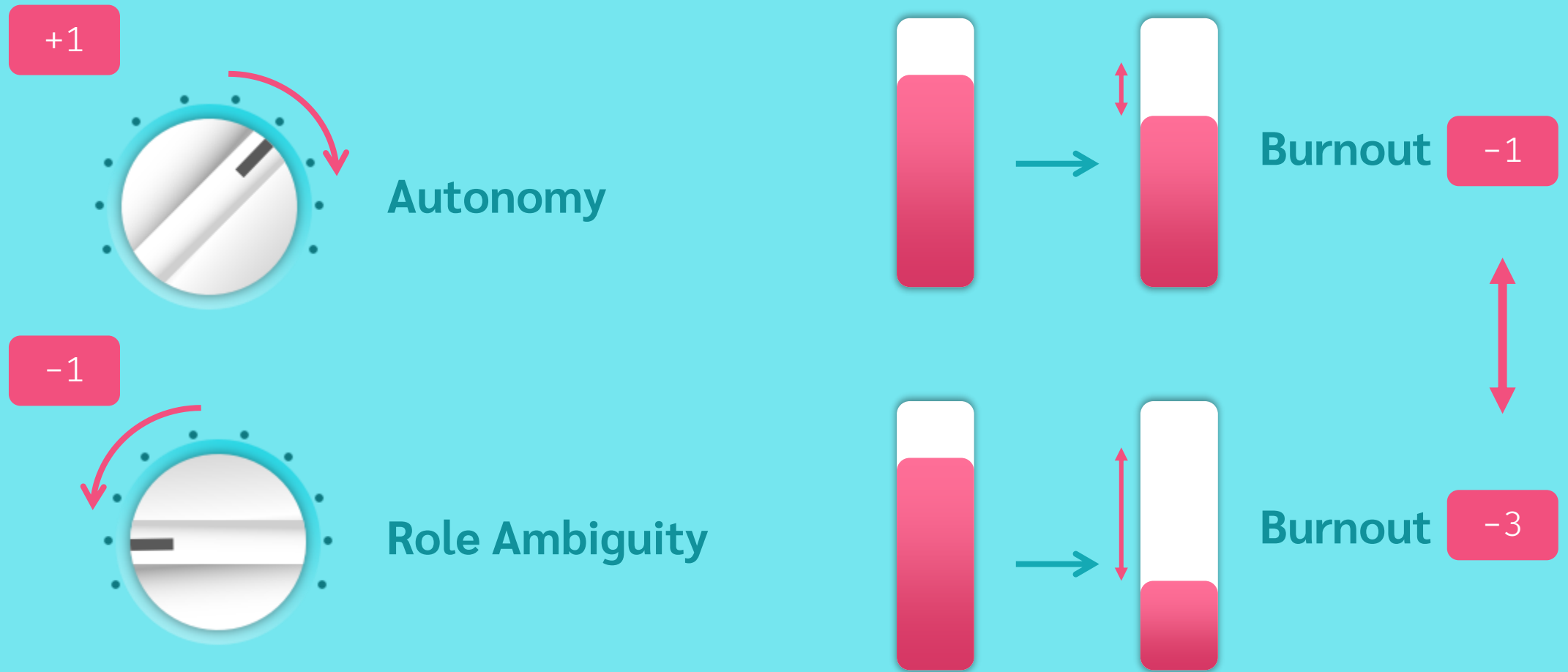
Using regressions to find work factors organizations may change to improve outcomes they care about



Changing Knobs Changes Outcomes



Changing Knobs Changes Outcomes



But... we don't know how far we can still turn the knobs



- Regression analysis may reveal useful turning knobs
- Regression weights do not tell us how far the knobs are already turned

Solution: combine scores with regression weights

GROWTH POTENTIAL

Find out how far the knobs are already turned and
recommend which knobs to turn to
improve important outcomes

1.

Benchmark

Use organization as
their own internal
benchmark

2.

Compare

Determine teams'
growth potential using
benchmark

3.

Rank

Weigh and rank
growth potential
using regressions

4.

Recommend

Make actionable
shortlists teams can put
into practice to realize
growth potential

GROWTH POTENTIAL

Valuable Work

Employees' perception that work is personally meaningful and interesting

Team score **7.5**

Benchmark **6.0**

1.5



Growth potential:
How far the knob
can still be turned

1. Red Tape

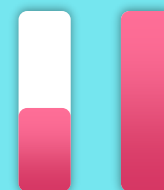
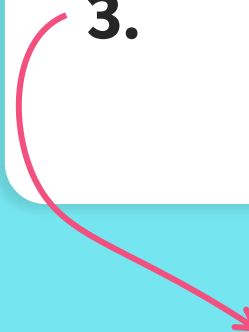
Burdensome and unnecessary rules

2. Obstacles

Things at work that stand in the way of completing tasks and attaining goals

3. Valuable Work

Employees' perception that work is personally meaningful and interesting



Recommended actions:
The knobs that improve
outcomes the most

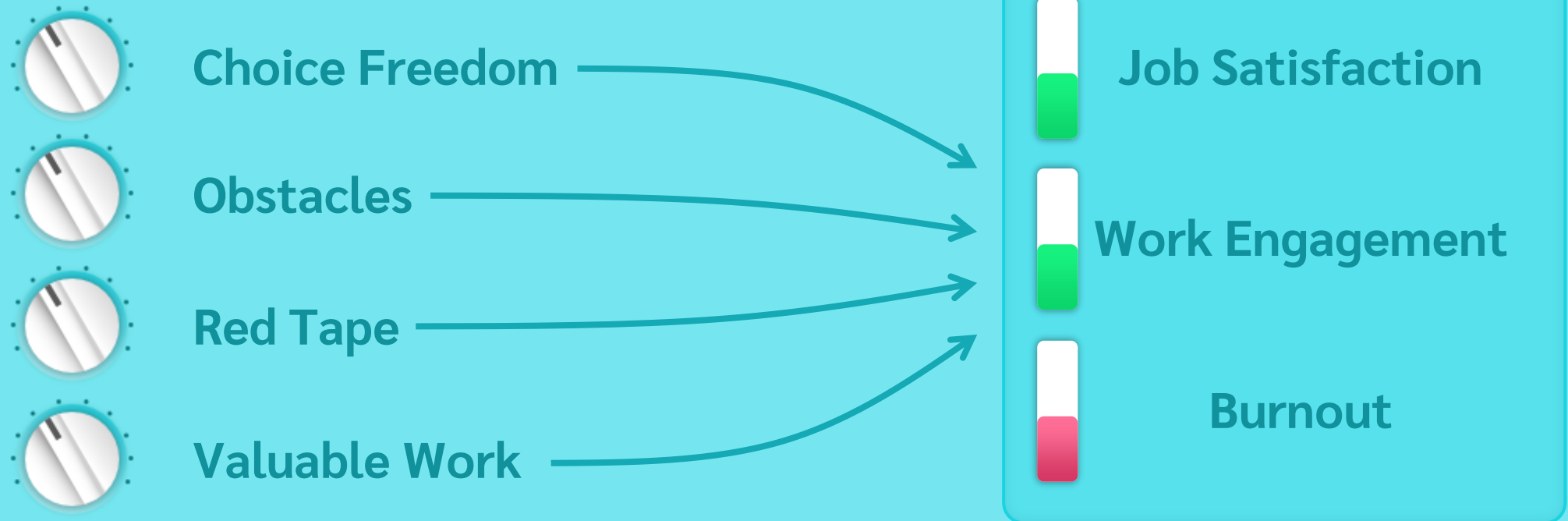


Autonomy Analytics

Case Study: Which autonomy “knobs” should a team turn to improve work outcomes?

Autonomy Analytics

Case Study: Which autonomy “knobs” should a team turn to improve these work outcomes?



The Code

ADD FUNCTION

<https://github.com/iLLucionist/growthp>

Explore yourself!

- R package in the making
- R code available on GitHub
- Bring Your Own Data
- Uses vanilla R – no packages required!

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1 BENCHMARK

Use organization as their own internal benchmark



Reference point

Use high scoring teams (90th percentile) as comparison standard

r10 benchmark

	10%	90%	Reference
Choice Freedom	5.6	8.2	8.2
Obstacles	4.2	7.0	4.2
Red Tape	6.0	9.0	6.0
Valuable Work	7.3	8.9	8.9
Job Satisfaction	7.0	8.3	8.3
Work Engagement	6.4	8.3	8.3
Burnout	2.1	4.4	2.1

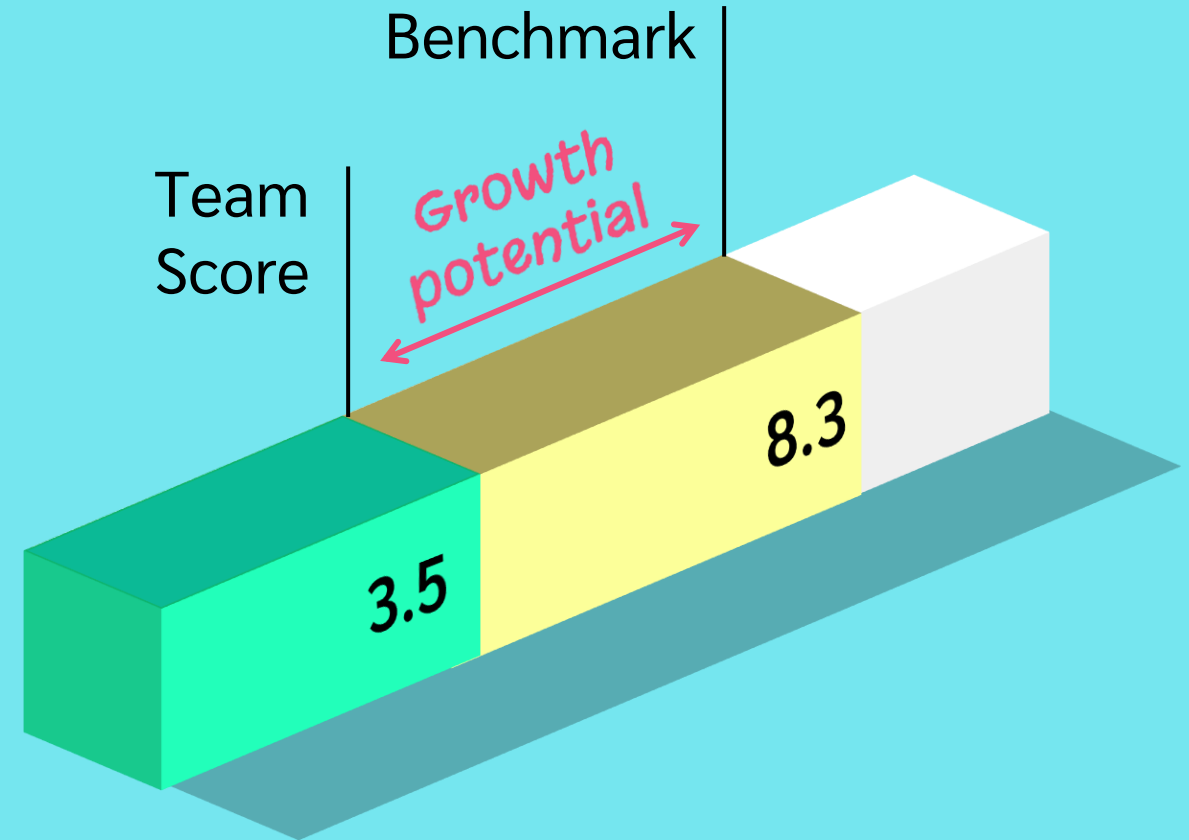
“Flipping”

2 COMPARE

Determine teams' growth potential using benchmark

Growth potential

Calculate difference between a team scores and the comparison standard for all variables



8.3

—

3.5

=

4.8

Growth potential
Calculate difference
between a team scores
and the comparison
standard for all
variables

★ There's no place like hoop

The Hot List

Sulking Hulks

Stoned Cookies

Soul Crushers

Silly Bellies

★ Nuns for Runs

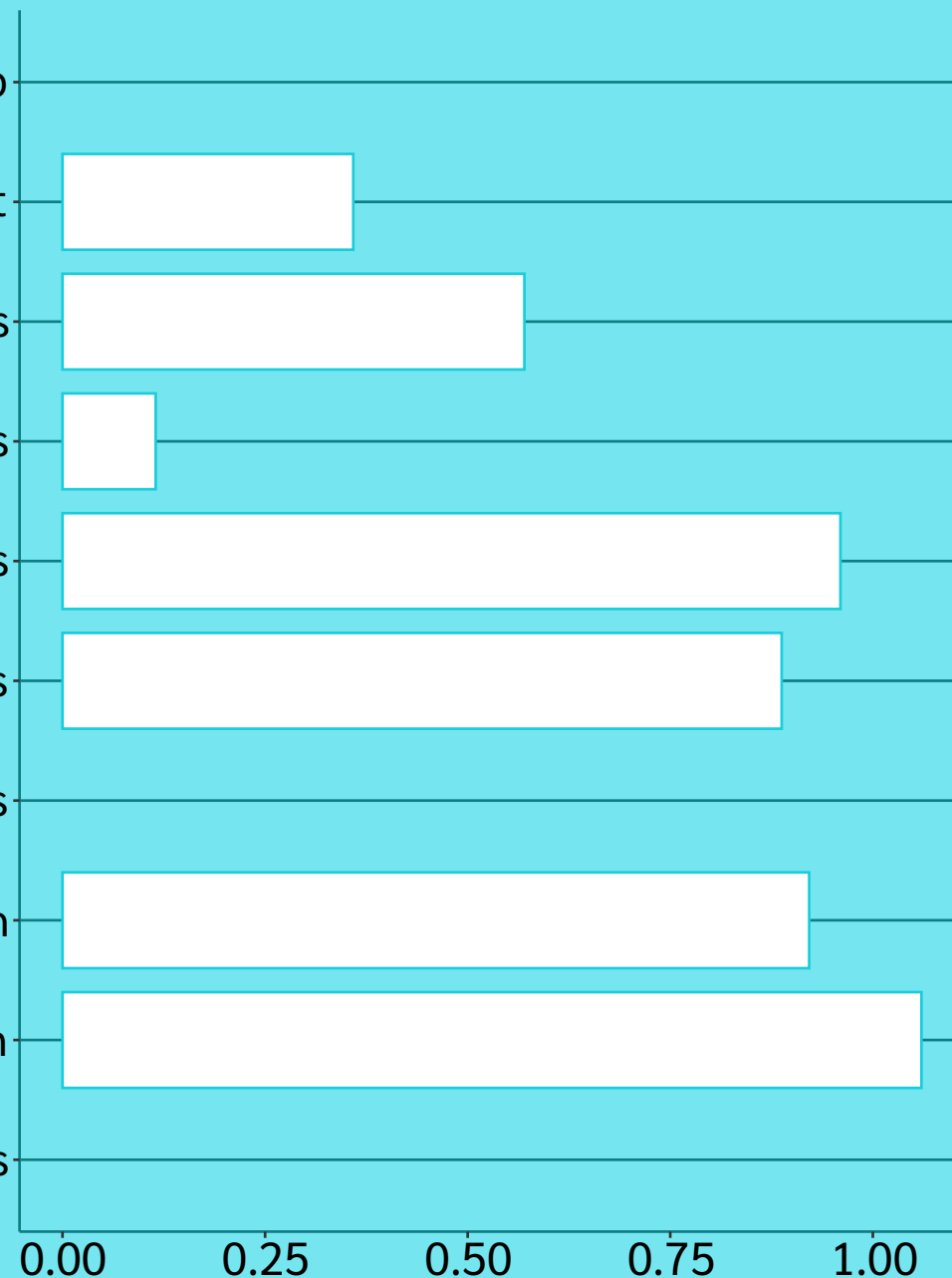
Man of Stealth

Gone with the Win

★ Dumb Dumplings

0.00 0.25 0.50 0.75 1.00

Red tape



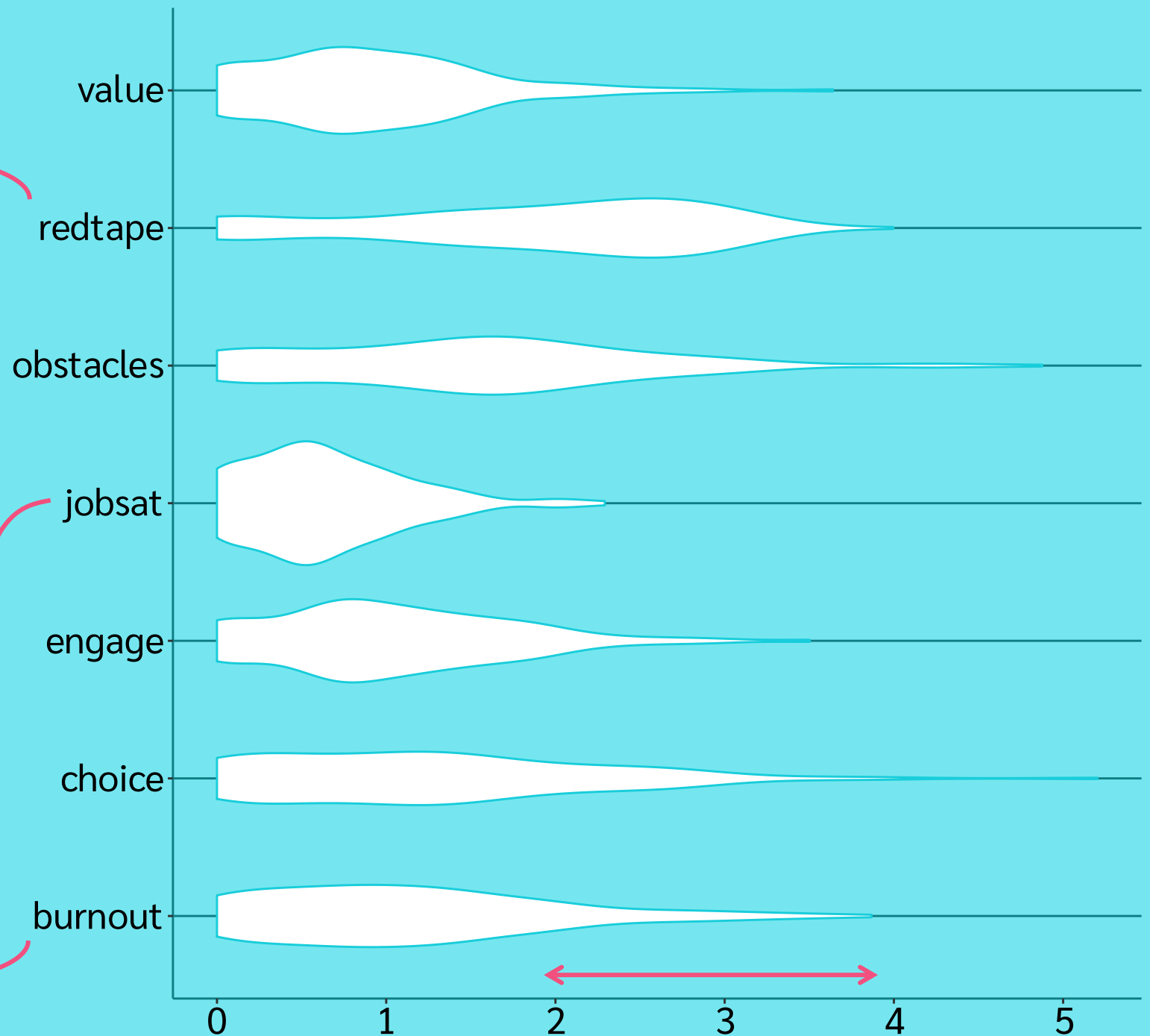
Growth distributions

How much growth there is for all teams on all variables

Lots of room for improvement...

...here not so much

Long tail!





Weigh and rank growth potential using regressions

One model to rule them all
Multivariate regression with all ivs and dvs.
Calculate average coefficients.

Choice Freedom

Obstacles

Red Tape

Valuable Work

jobsat

engage

burnout

absolute
overall

+ .087

+ .170

- .001

.086

- .115

- .041

+ .271

.142

- .061

+ .025

+ .162

.083

+ .253

+ .171

+ .099

.174

row means ←

Coefficients same for all teams



Weigh and rank growth potential using regressions

Calculate weighted growth for every team
Multiply team's growth with overall averaged regression weights

	team's growth		overall weight		team's weighted growth
Choice Freedom	0.20	X	.086	=	.018
Obstacles	4.28		.142		.609
Red Tape	4.00		.083		.330
Valuable Work	0.69		.174		.120

Calculate for every team
Here: "The Real Slim Shadies"

3 RANK

Weigh and rank growth potential using regressions

Used for recommended actions



Choice Freedom Obstacles

Red Tape Valuable Work

Choice Freedom

Obstacles

Red Tape

Valuable Work

weighted growth

.018

.609

.330

.120

relative growth

1.62%

56.53%

30.68%

11.17%

100%

sum

team's ranks

4

1

2

3

Calculate for every team

4 RECOMMEND

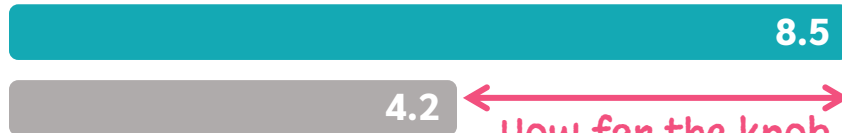
Make actionable shortlists teams can put into practice to realize growth potential

Choice Freedom



How far the knob
is turned

Obstacles



How far the knob
can be turned

Red Tape



Valuable Work



1.

Obstacles

Things at work that stand in the way of completing tasks and attaining goals

2.

Red Tape

Burdensome and unnecessary rules

3.

Valuable Work

Employees' perception that work is personally meaningful and interesting

4.

Choice Freedom

Employees' perception they can make decisions in their work

Knobs in order they can best be turned
to improve all outcomes the most

DEMO

Discussion

Growth potential provides teams valuable insight into how they can improve important outcomes.

Limitations

- Requires a nesting (teams)
- Fit may vary slightly per team
($\hat{y} - y$)
- Misses granularity due to averaging over coefficients

Future

- Multilevel regression feasible?
- Other approaches?
- ...?

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Thank you!
Questions?

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