Accumulating Construct Versus Process Knowledge

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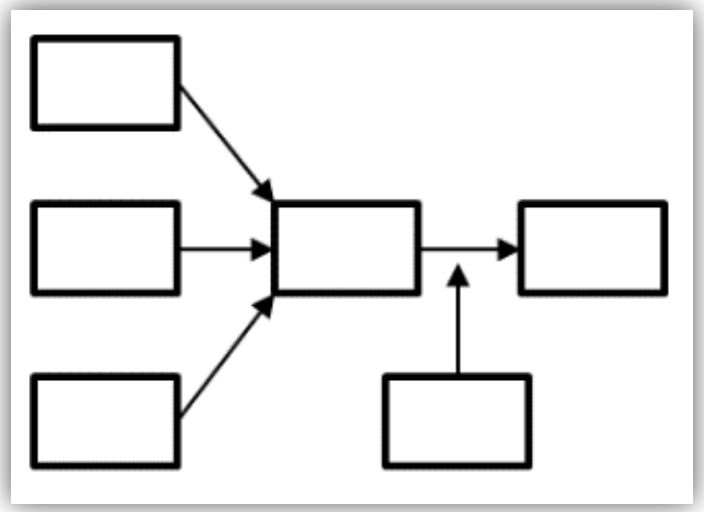
CARMA

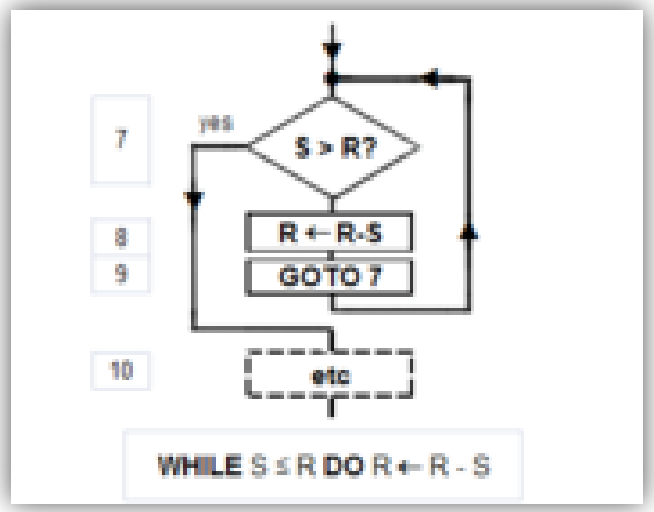
Knowledge Comes in Different Forms

Construct Knowledge



- Focus on Relations Among Variables
- Mediation as Explanation
- Moderation as Contingencies
- Aggregates the Details

Process Knowledge



- Focus on Actors Enacting Sequences of Actions
- Mechanisms/Rules Applied to Actors as Explanations and Generators of Actions
- Explicates the Details: Who, What, Where, When, Why, and How

Example of Accumulated Construct Knowledge

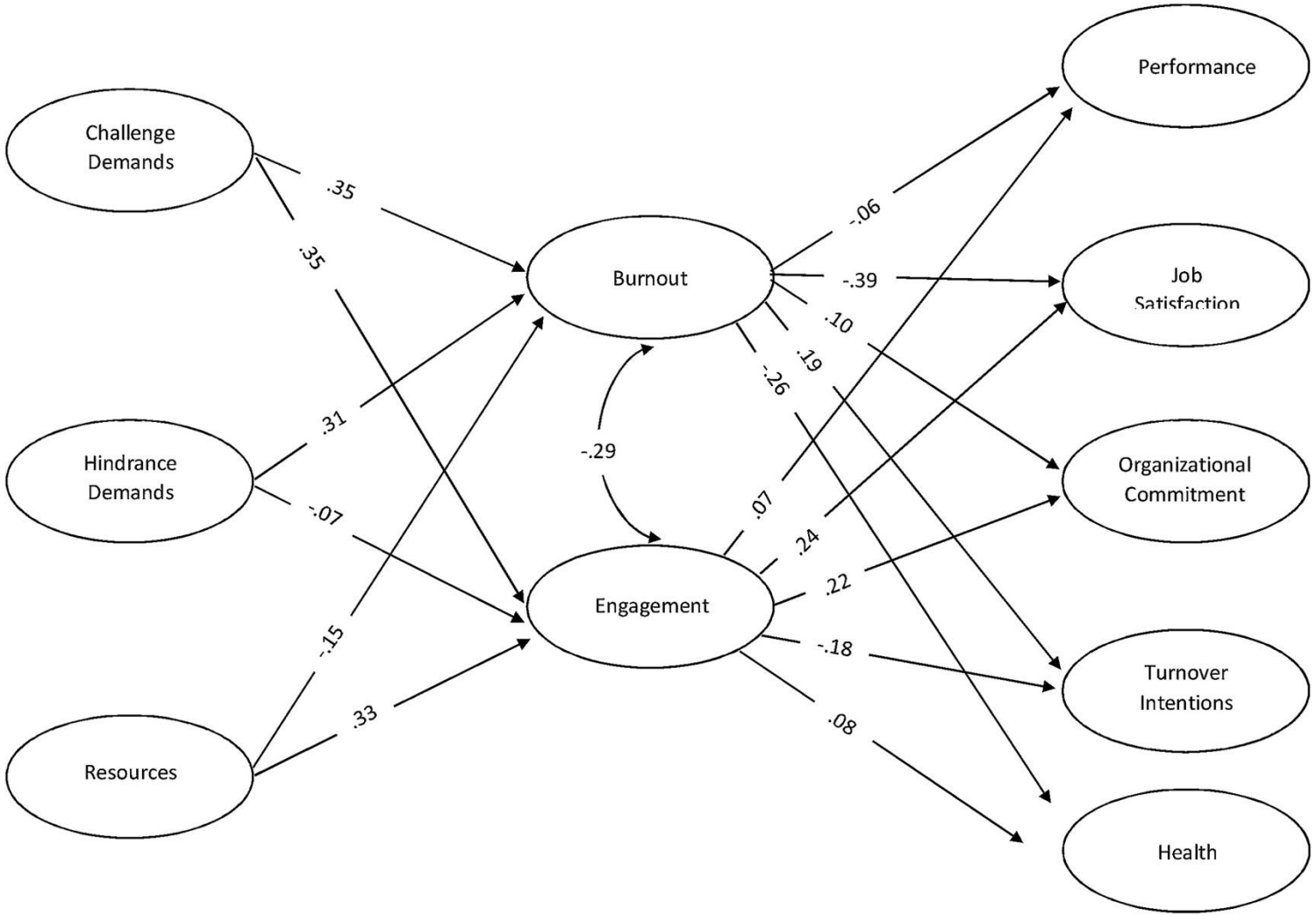
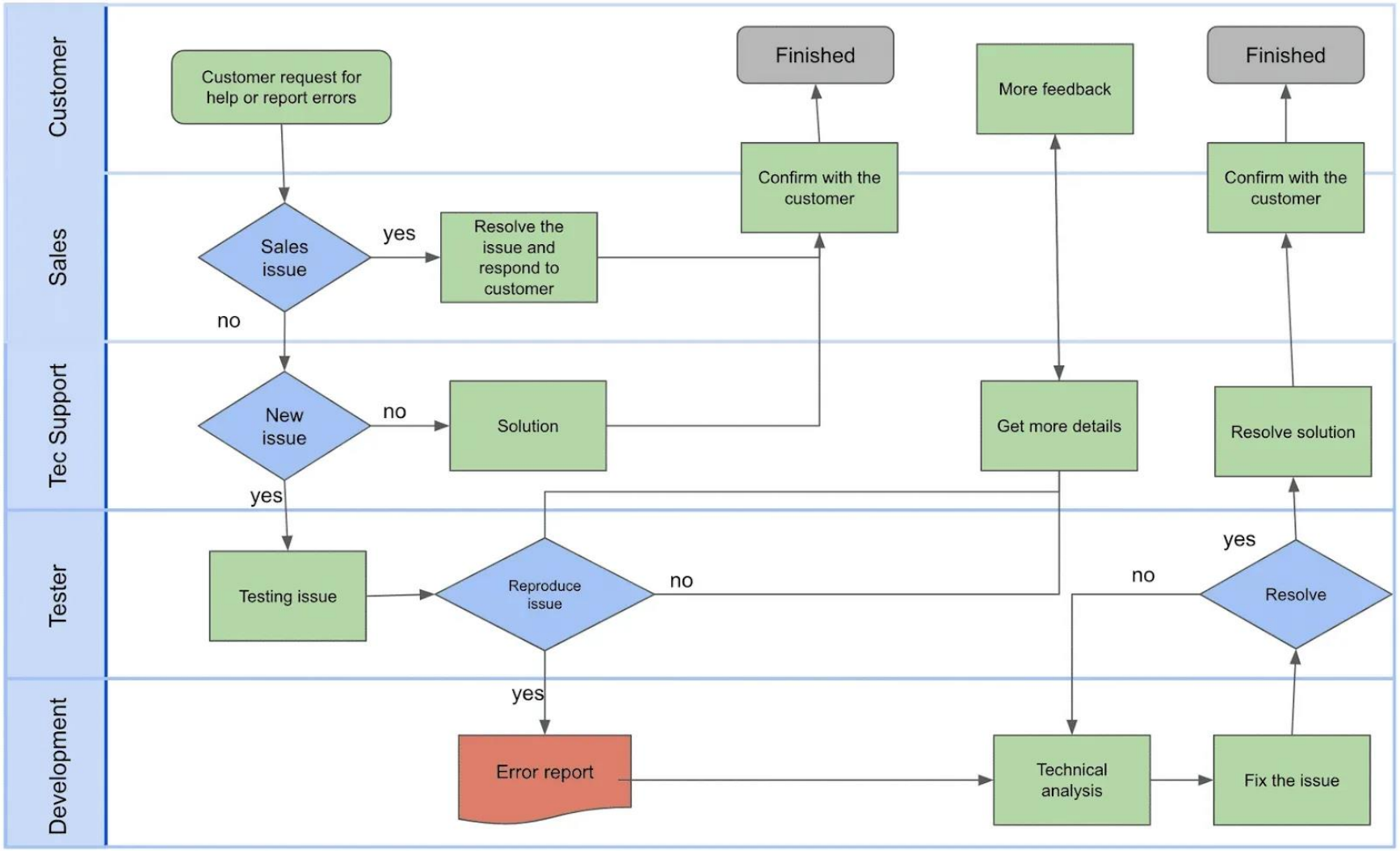


Fig. 2. Results of MASEM Mean Average ß Model of Differentiated JD-R Framework

Note. Values are average standardized beta coefficients for the entire population distribution of possible values.

Goering, D. D., Shimazu, A., Zhou, F., Wada, T., & Sakai, R. (2017). Not if, but how they differ: A meta-analytic test of the nomological networks of burnout and engagement. *Burnout Research, 5,* 21-34.

Example of Accumulated Process Knowledge



Source: https://trailhead.salesforce.com/content/learn/modules/business-process-mapping/understand-universal-process-notation

How Can We Evaluate the Quality of Accumulated Knowledge?

To what extent does our accumulated knowledge help us explain how something works, functions, or operates?

To what extent does our accumulated knowledge help us predict what will happen?

To what extent does our accumulated knowledge help us control/direct what will happen?

Managing a Professional Basketball Team

This management adviser seeks to support the front-line manager.

This front-line manager seeks advice on how to manage team human capital.

How to Win Basketball Games?

Utility of Using the Four Factors of Basketball

Pay Attention to the Action!

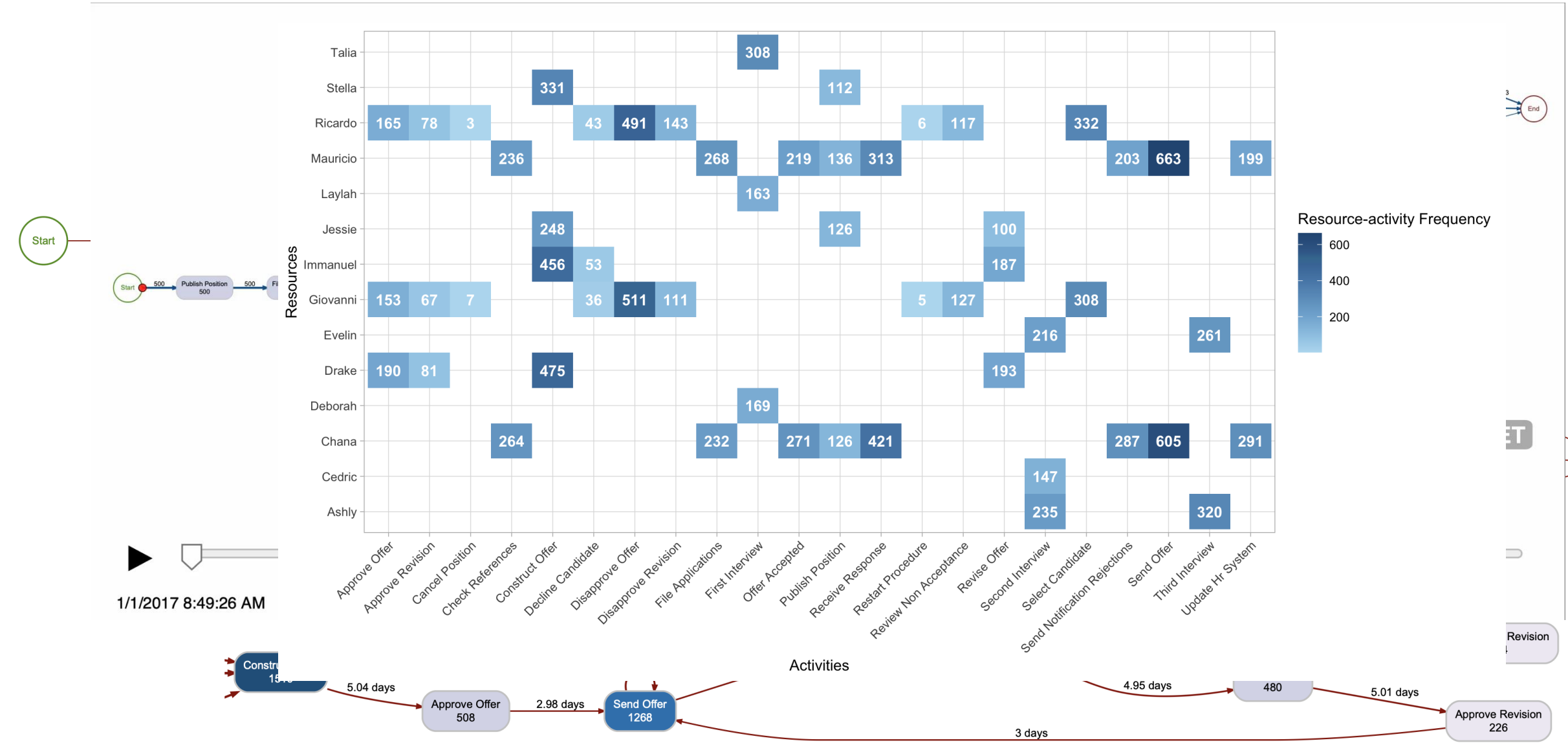
The four factors of basketball miss (aggregate over) the action!

By focusing on the action, one can better explain, predict, and control the outcomes of basketball games!

Example of Process Data

	vacancy	vacancy_department	vacancy_type	vacancy_duration	vacancy_salary_range	activity	resource	time
41	2	Purchasing	Full-time	Permanent	25000-50000	Disapprove Offer	Giovanni	2018-02-21 09:31:40
42	2	Purchasing	Full-time	Permanent	25000-50000	Construct Offer	Immanuel	2018-02-24 10:58:35
43	2	Purchasing	Full-time	Permanent	25000-50000	Approve Offer	Ricardo	2018-03-10 10:48:01
44	2	Purchasing	Full-time	Permanent	25000-50000	Send Offer	Mauricio	2018-03-13 18:01:41
45	2	Purchasing	Full-time	Permanent	25000-50000	Send Offer	Mauricio	2018-03-20 17:24:57
46	2	Purchasing	Full-time	Permanent	25000-50000	Send Offer	Mauricio	2018-03-27 17:06:58
47	2	Purchasing	Full-time	Permanent	25000-50000	Receive Response	Mauricio	2018-04-02 15:41:47
48	2	Purchasing	Full-time	Permanent	25000-50000	Offer Accepted	Mauricio	2018-04-03 20:37:16
49	2	Purchasing	Full-time	Permanent	25000-50000	Send Notification Rejections	Mauricio	2018-04-08 13:45:20
50	2	Purchasing	Full-time	Permanent	25000-50000	Update Hr System	Chana	2018-04-11 18:52:57
51	3	Production	Full-time	Fixed term	25000-50000	Publish Position	Jessie	2017-12-20 18:09:23
52	3	Production	Full-time	Fixed term	25000-50000	File Applications	Mauricio	2018-01-22 17:08:27
53	3	Production	Full-time	Fixed term	25000-50000	Check References	Mauricio	2018-02-01 12:52:45
54	3	Production	Full-time	Fixed term	25000-50000	Select Candidate	Giovanni	2018-02-09 14:23:40
55	3	Production	Full-time	Fixed term	25000-50000	First Interview	Talia	2018-02-22 11:06:14
56	3	Production	Full-time	Fixed term	25000-50000	Second Interview	Evelin	2018-03-09 12:10:37
57	3	Production	Full-time	Fixed term	25000-50000	Third Interview	Ashly	2018-03-25 13:52:25
58	3	Production	Full-time	Fixed term	25000-50000	Decline Candidate	Ricardo	2018-04-10 13:45:32

Insights From Process Data



Integrating Construct and Process Knowledge

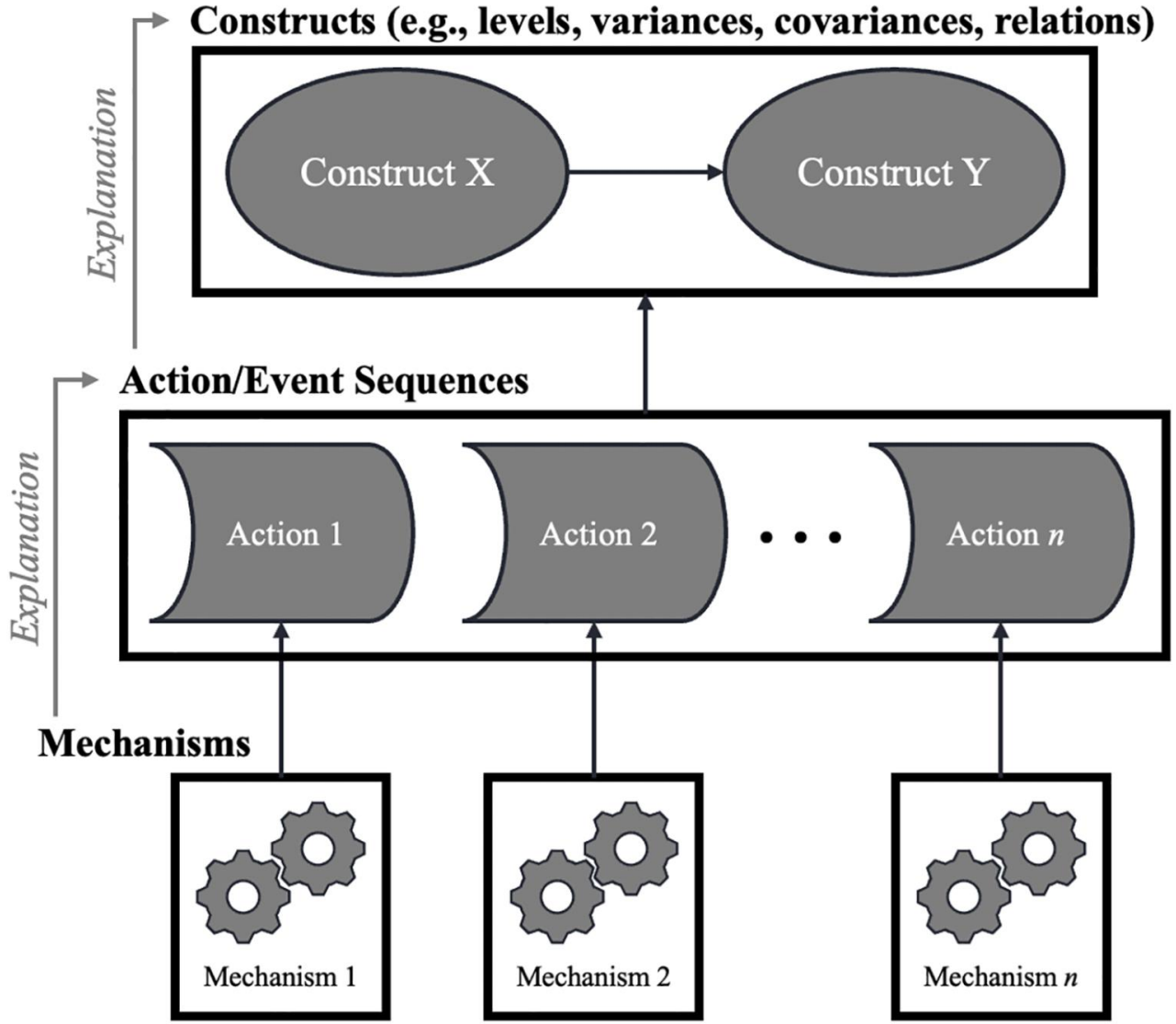


Fig. 1. Layers of Explanation Offered by Process Theories.

A Leadership Example

Yet, process knowledge provides far more extensive degrees of explanation, prediction, and control.

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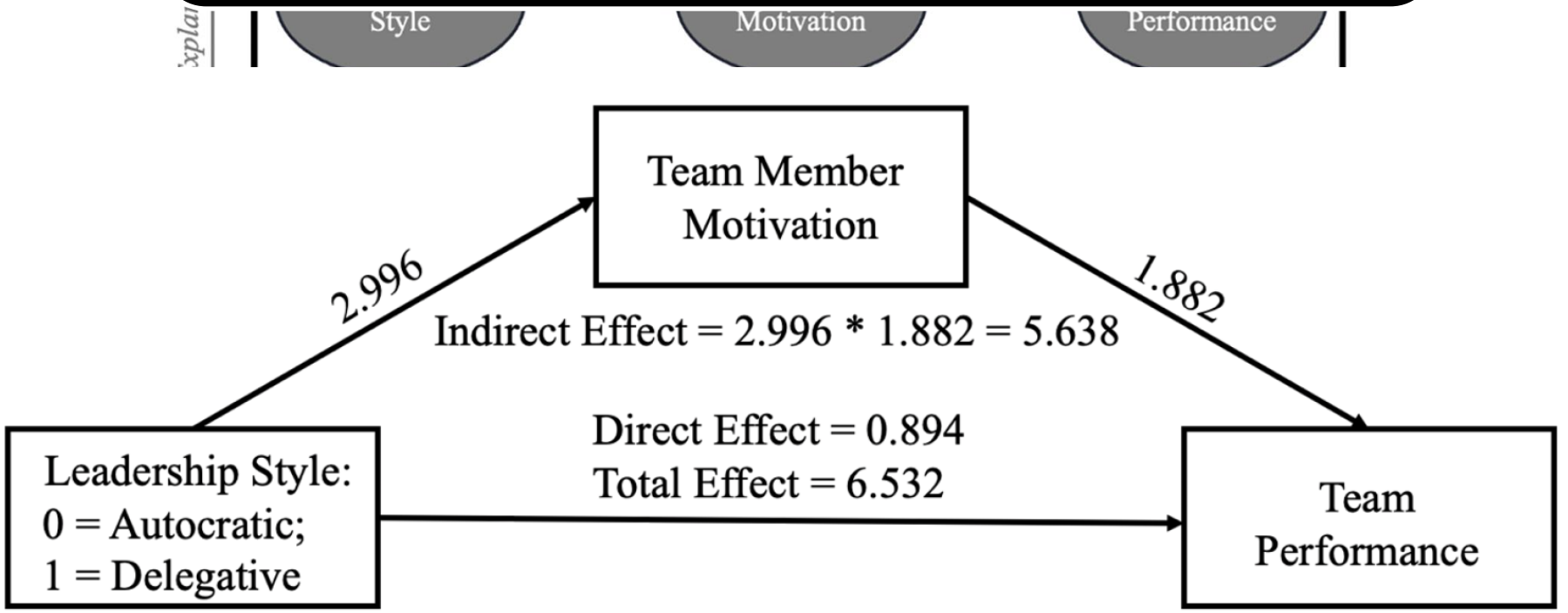

Fig. 5. Construct Path Diagram.

A Few Background References

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Thank You!

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