

# Leadership Across Physical and Conceptual Barriers

(applications of the semantic theory of survey response)

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## What is the value of exploring your own leadership identity?



**In a socialization perspective,  
identity is usually given, not  
discovered or created.**

What are the  
identities you  
may  
discover?

**Why me?**



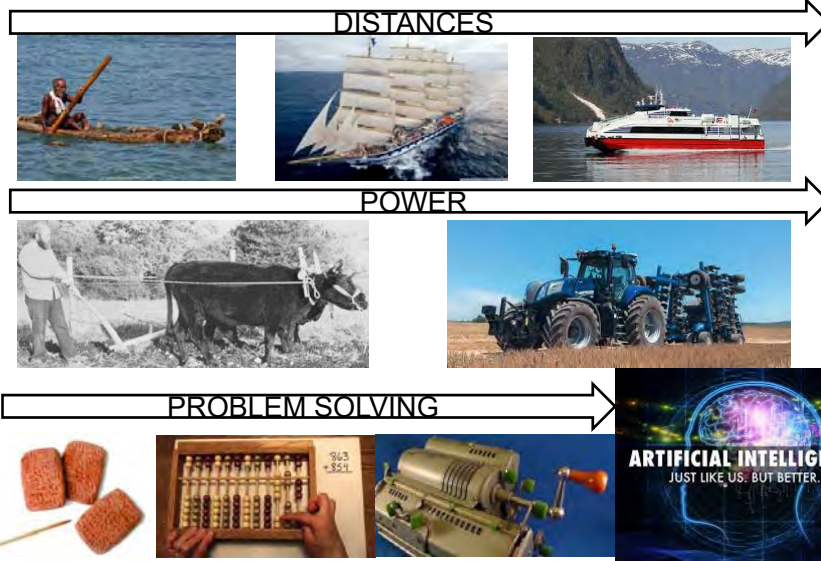
**The new environment may still be far off due to (one or more) conceptual barriers that we do not see.**



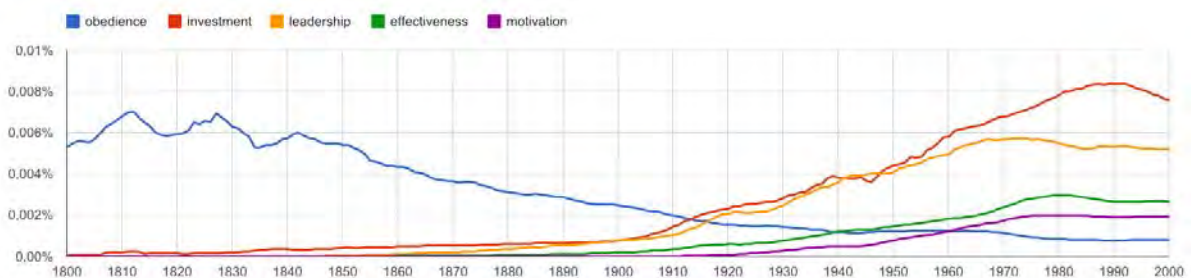
**"...Language is not merely a reproducing instrument for voicing ideas but rather is itself the shaper of ideas, the program and guide for the individual' s mental activity"**

(Whorf, 1940, 1956, p. 212).

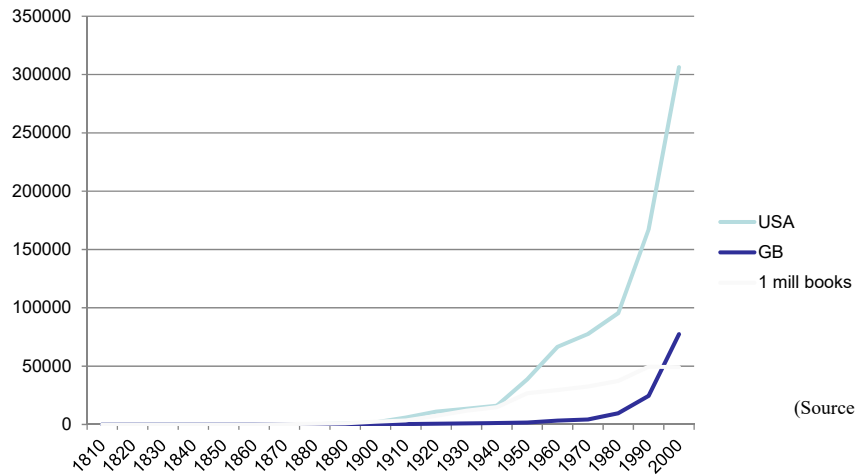
## Development of tools to overcome barriers:



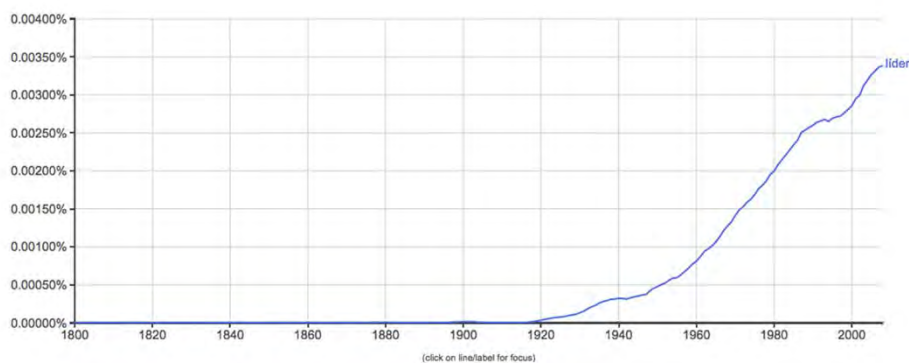
## «Leadership» invented with the shareholding company in 1850.



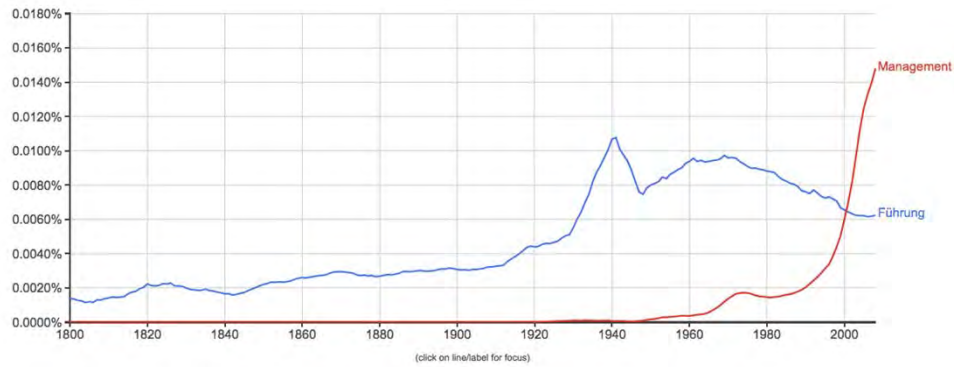
## The word «Leadership» is probably more of an American than a British English construction:



## ...but the word travels the world. Leadership in Spanish (líder)



# Leadership – Führung and Management – in German



# The Chinese term for leadership is even newer: 领导力





## Simple definitions of leadership:

- «Leadership is to create results through {the work of} others», i.e.,
- Leadership is to secure the return on investments in labor, i.e.,
- Leadership is the creation of social realities that drive value creation.
- **CURIOSLY: If there are no (or lousy) results, it was not leadership.**

道可道，非常道。名可名，非常名。

无，名天地之始；有，名万物之母。

故常无，欲以观其妙；常有，欲以观其徼。

此两者，同出而异名，同谓之玄。玄之又玄，众妙之门。

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### 1. The Way

The Way that can be experienced is not true;  
The world that can be constructed is not true.  
The Way manifests all that happens and may happen;  
The world represents all that exists and may exist.

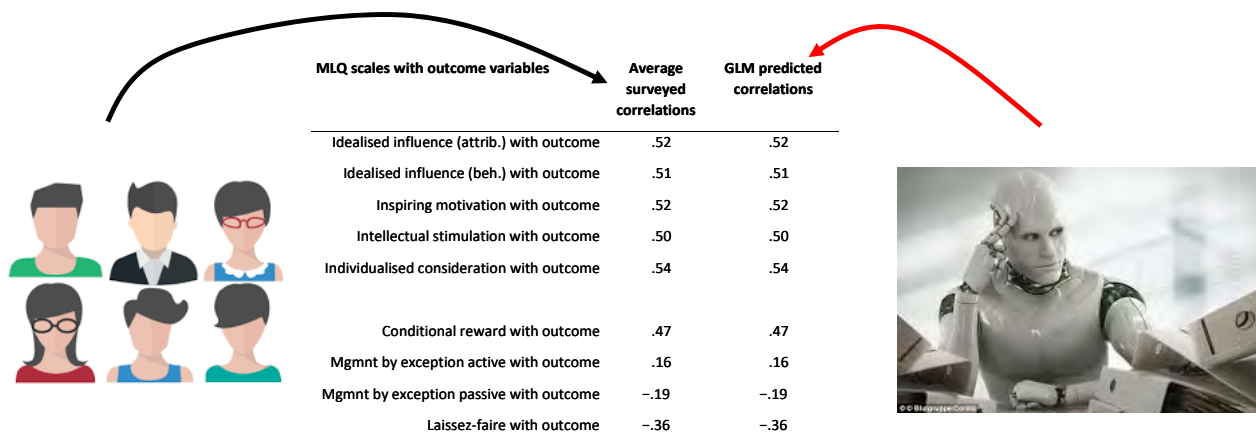
To experience without intention is to sense the world;  
To experience with intention is to anticipate the world.  
These two experiences are indistinguishable;  
Their construction differs but their effect is the same.

Beyond the gate of experience flows the Way,  
Which is ever greater and more subtle than the world.

## Dumdum, Lowe & Avolio's meta-analysis of transformational leadership:

Concept	No studies	N	Effect size
Attributed charisma	17	9538	.66
Idealized influence	16	8608	.66
Indspiring motivation	22	12009	.56
Intellectual stimulation	26	14290	.52
Individual consideration	27	14842	.55
Conditional reward	27	18682	.51
Leadership by exception (active)	20	13895	.05
Leadership by exception (passive)	17	12386	-.34
Laissez-faire leadership	21	11564	-.38

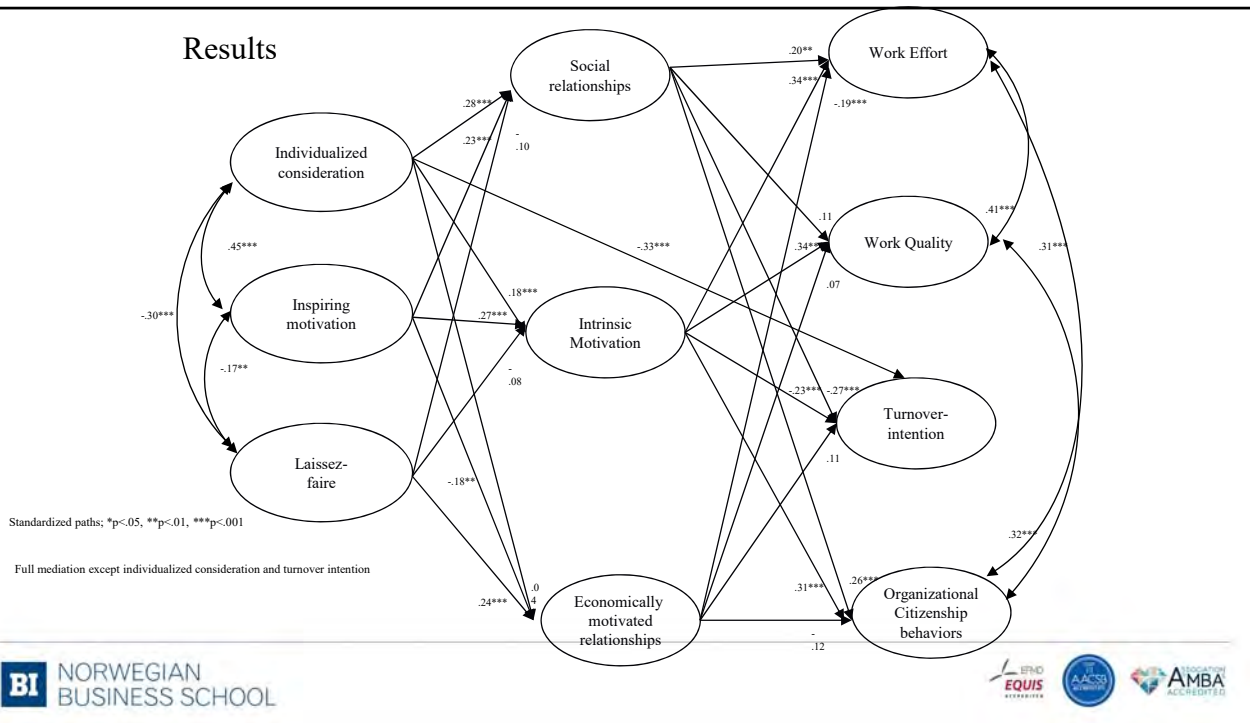
## We can predict survey correlations through semantic algorithms:



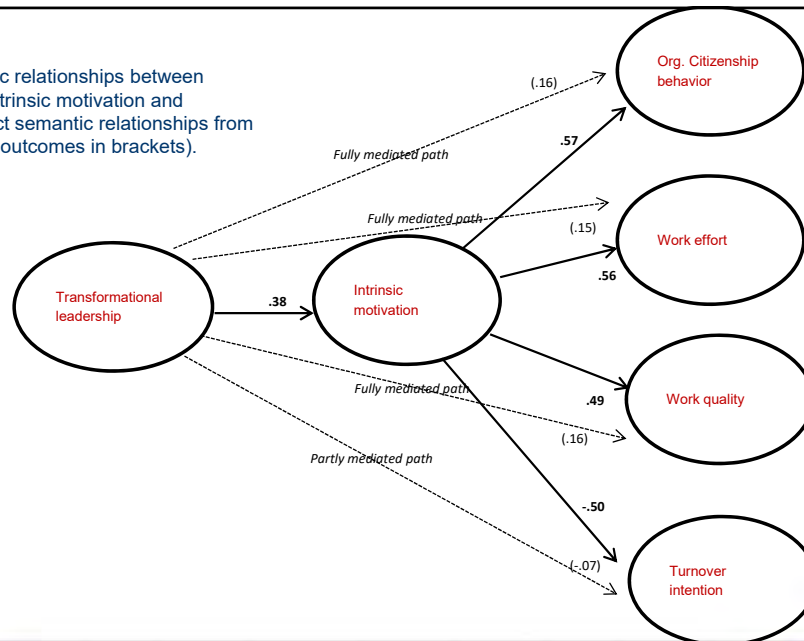
*Similar results for LMX, 2-factor leadership, intrinsic motivation, OCB, turnover intention, exchange motivation, job satisfaction, but NOT for the Five-Factor inventory NEO-FFI.*



## Results



Direct and "mediated" semantic relationships between transformational leadership, intrinsic motivation and organizational outcomes (direct semantic relationships from transformational leadership to outcomes in brackets).



## The algorithms, analyzing items in English, predict almost equally well across the globe:

The questions beg their own answers: In «Cross cultural research», we may only detect how well the instrument is translated (in this case the MLQ).

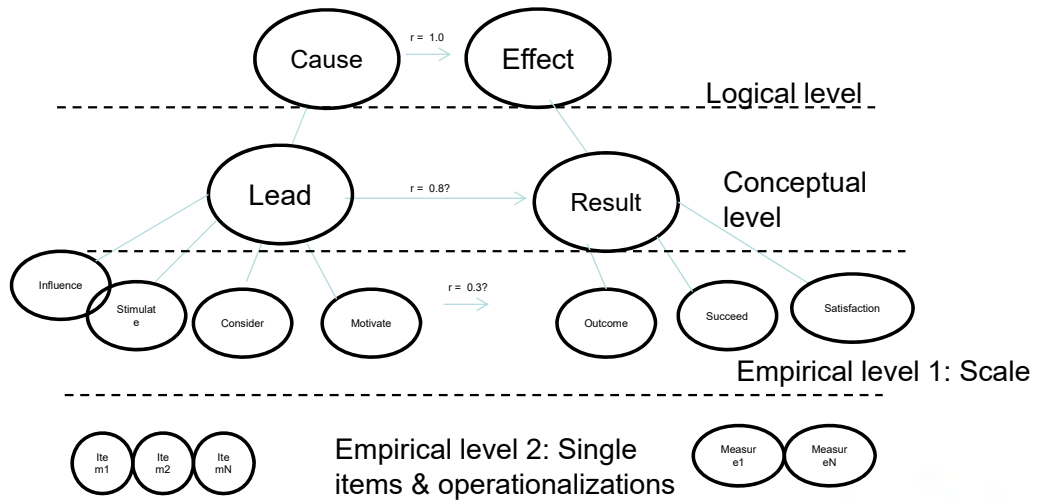
Respondent groups	Adjusted R2 in linear regression	Adjusted R2 in GLM
Native English Speakers (N=137)	.85	.91
Chinese in English (N=195)	.71	.83
Chinese in Chinese (N=182)	.52	.60
Germans in German	.66	.81
Pakistanis in Urdu (N=111)	.11	.31
Pakistanis in English (N=108)	.66	.71
Indian nationals in English (N=40)	.61	.74
Norwegians in English (N=144)	.65	.89
Norwegians in Norwegian (N=1220)	.79	.91
East Asian non-Chinese in English (N=18)	.35	.53
Other Europeans in English (N=40)	.75	.94

## Respondent robotics: Use semantics to reproduce and predict individual scores and factor structures

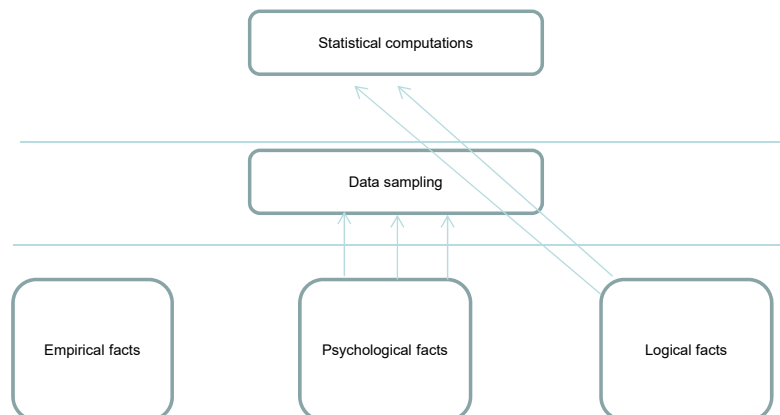


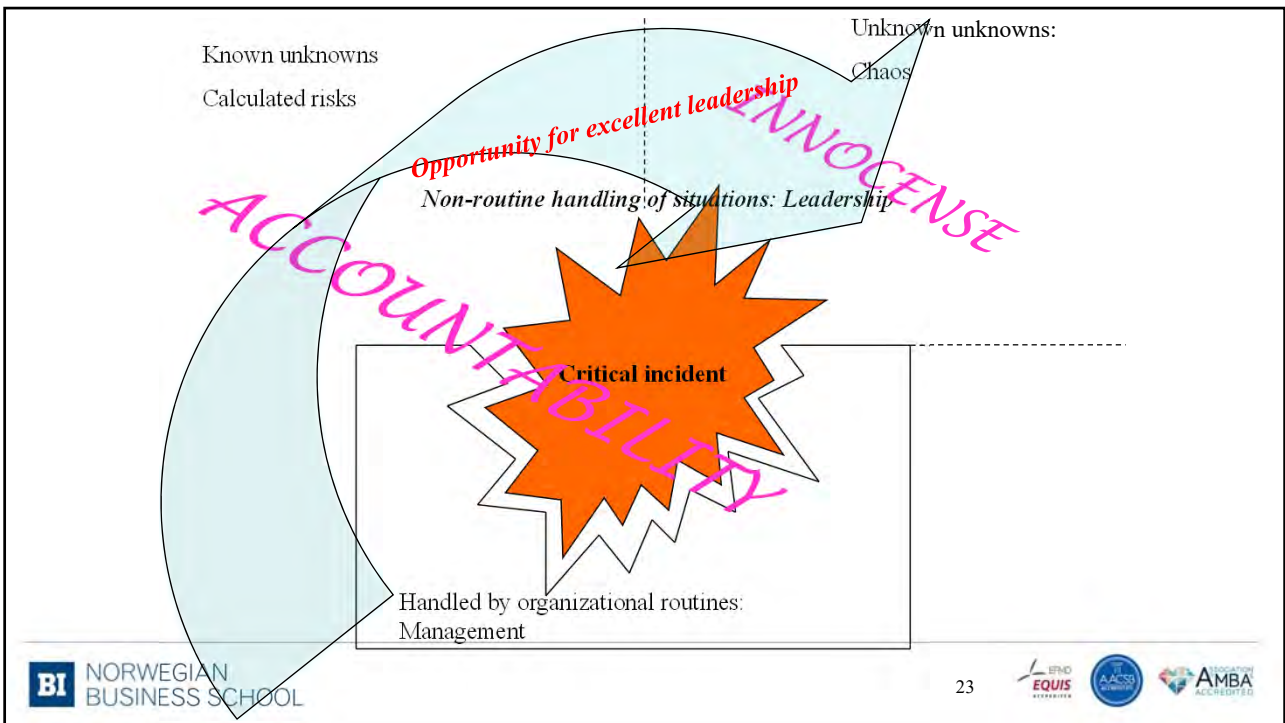
	Real	Outcome items missing	21 (46%) items missing	33 (73%) items missing	33 items random semantics	39 (86%) items missing	39 items random semantics	42 (95%) items missing	42 items random semantics	100% Synthetic
Idealized influence attr	.74	.77	.82	.88	-.10	.99	.13	1.00	-.15	.99
Idealized influence beh	.72	.72	.72	.90	-.07	.92	-.04	.99	-.06	.99
Inspiring Motivation	.80	.80	.82	.91	.09	.99	-.12	1.00	-.05	.99
Intellectual Stimulation	.83	.82	.84	.85	.45	.91	-.20	.93	-.11	.76
Individualized consider.	.78	.78	.82	.99	-.22	1.00	.16	1.00	-.06	.99
Conditional reward	.73	.73	.79	.90	.42	.99	.10	1.00	-.20	.99
Mgmt by exception act.	.51	.52	.43	.72	.00	.77	.13	.97	-.27	.95
Mgmt by exception pas.	.47	.47	.47	.76	.38	.82	-.09	.83	-.06	.83
Laissez-Faire	.77	.77	.75	.78	.33	.84	-.03	.99	-.07	.97
Outcome measures	.92	1.00	1.00	1.00	.18	1.00	-.02	1.00	.07	1.00

## Relationships explored in Wordvis



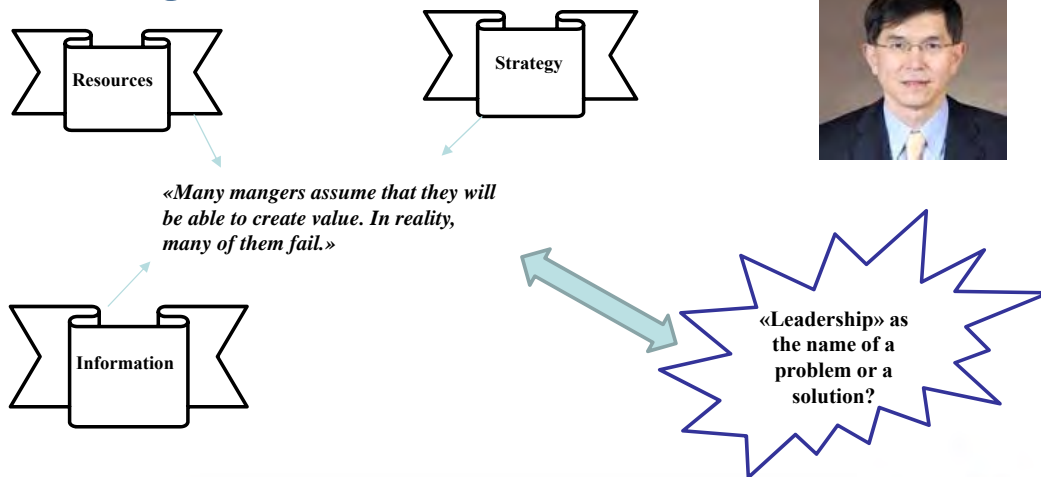
## The logical error of Likert-scale psychometrics, based on the views of Wittgenstein/Russel





An accurate picture of the  
FUTURE:

## The core point explained by professor Ren Mingchuan:



## Clausewitz on methods and theory I:

Method will ... be the more generally used, become the more indispensable, the farther down the scale of rank the position of the active agent; and on the other hand, its use will diminish upwards, until in its highest position it quite disappears...

War in its highest aspects consists not of an infinite number of little events, the diversities in which compensate each other, and which therefore by a better or worse method are better or worse governed, but of separate great decisive events which must be dealt with separately.

...any method by which definite plans for wars or campaigns are to be given out all ready made as if from a machine are absolutely worthless.

# Exploration



## A VERY old piece of advice

(freely and irreverently translated by me):

- 失道而后德: **The ground is more important than the map. Only use a map when you cannot see reality clearly.**
- 失德而后仁: **If you have no good map – or theory – try to link up connections to people (team spirit).**
- 失仁而后义: **If you cannot make people connect with you, try to impose rules.**
- 失义而后礼: **If all else fails, you can follow traditions. BUT:**
- 夫礼者，忠信之薄而乱之首: **Blind faith in traditions lets chaos in again through the back door.**

老子



# The Semantic Theory of Survey Response: publications by april. 2018

## STSR papers

- Arnulf, J. K., Larsen, K. R., Martinsen, Ø. L., & Bong, C. H. (2014). Predicting Survey Responses: How and why semantics shape survey statistics in organizational behavior. *PLoS ONE*, 9(9), 1-13. doi:10.1371/journal.pone.0106361
- Arnulf, J. K., & Larsen, K. R. (2015). Overlapping semantics of leadership and heroism: Expectations of omnipotence, identification with ideal leaders and disappointment in real managers. *Scandinavian Psychologist*, 2(e3). doi:http://dx.doi.org/10.15714/scandpsychol.2.e3
- Arnulf, J. K., Larsen, K. R., Martinsen, Ø. L., & Egeland, T. (2018). The failing measurement of attitudes: How semantic determinants of individual survey responses come to replace measures of attitude strength. *Behavior Research Methods*, 1-21. doi:10.3758/s13428-017-0999-y
- Arnulf, J. K., Larsen, K. R., & Martinsen, Ø. L. (2018). Respondent Robotics: Simulating responses to Likert-scale survey items. *Sage Open*, January-March, 1-18. doi:10.1177/2158244018764803
- Arnulf, J. K., Larsen, K. R., & Martinsen, Ø. L. (2015). *Leadership in language: Differential impact of media language on leadership survey responses*. Paper presented at the Academy of Management meeting 2015, Vancouver.
- Martinsen, Ø. L., Arnulf, J. K., Larsen, K. R., Ohlsson, U. H., & Satorra, A. (2017). *Semantic influence on the measurement of leadership: A multitrait-multisource perspective*. Paper presented at the Academy of Management meeting, Atlanta.
- Arnulf, J. K., & Larsen, K. R. (2018). *Cultural Insensitivity of Likert-scale Surveys in Cross-cultural Studies of Leadership*. Paper presented at the AOM meeting, Chicago.

## Related research:

- Nimon, K., Shuck, B., & Zigarmi, D. (2016). Construct Overlap Between Employee Engagement and Job Satisfaction: A Function of Semantic Equivalence? *Journal of Happiness Studies*, 17(3), 1149-1171. doi:10.1007/s10902-015-9636-6
- Gefen, D., Endicott, J., Fresneda, J., Miller, J., & Larsen, K. R. (2017). A Guide to Text Analysis with Latent Semantic Analysis in R with Annotated Code Studying Online Reviews and the Stack Exchange Community. *Communications of the Association for Information Systems*, 41(11), 450-496.
- Gefen, D., & Larsen, K. R. (2017). Controlling for Lexical Closeness in Survey Research: A Demonstration on the Technology Acceptance Model. *Journal of the Association for Information Systems*(January).
- Larsen, K. R., & Bong, C. H. (2016). A Tool for addressing Construct Identity in Literature Reviews and Meta-Analyses. *MIS Quarterly*, 40(3), 529-551.