

Theory and Theory Contributions

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Theory (what it is and why, what it is not). & Theory contributions

- What is theory?
- What theory is not
- What are theory contributions (and other contributions)?

The best journals ask, “Where is your theory (and theory contribution)?”

Theory (or more specifically, lack of much theory contribution) is often cited as the #1 reason for rejection at many major journals.

1. We will talk about what is a theory contribution (and a bit on other contributions), **but first, what is theory?**
2. It is important to have “theory” in your paper, but that means at least three different things to some editors / reviewers:
 - a) Theory contribution in the introduction and discussion section
 - b) Theory / theories in the introduction (i.e. a mini-literature review) and later in the theory / literature review section – this helps to motivate and situate your paper
 - c) Theory (and related evidence) to back up your own hypotheses (sometimes called “hypothesis development”)
3. Theory motivates the use of these things; determines research question, hypotheses, variables, level of analysis.
4. “Why?” is a key word to handling theory. Why did this occur (what theory explains it), not just some empirical correlations.
5. This is to say, when the reviewers ask you to “add theory” to your paper, don’t just put in a few more citations from (say) ‘institutional theory’ (or something else) and assume that is “adding theory.”

I. What is theory? First, what theory is not (Sutton & Staw, ASQ 1995 – they talk about 5 ‘what theory is not’ examples. **Just two key ones discussed here**

1. References (a list of references) Are Not Theory

References to theory developed in prior work are needed. But just listing references to existing theories and mentioning the names of such theories is not the same as the causal logic they contain. To illustrate, this sentence from Sutton's (1991: 262) article on bill collectors contains three references but no theory:

"This pattern is consistent with findings that aggression provokes the 'fight' response (Frijda, 1986) and that anger is a contagious emotion (Schacter and Singer, 1962; Baron, 1977)."

This sentence lists publications that contain conceptual arguments (and some findings). But **there is no theory here** because no logic is presented to explain **why aggression provokes "fight" or why anger is contagious.**

1. A list of references are not theory (con't)

“Weak theory” or “Poorly motivated hypotheses” – common reviewer criticism of our papers

Calls for "more theory" by reviewers and editors are often met with a flurry of citations by the author. Authors often then just list the names of prevailing theories or schools of thought, without even providing an explanation of why the theory or approach leads to a new or unanswered theoretical question.

In one paper, reviewers emphasized that it had "weak theory" and "poorly motivated hypotheses." The author responded to these concerns by writing a new introduction that added citations to many papers containing theory and many terms like "psycho-social theory," "identity theory," and "social comparison theory." But it still contained no discussion of what these theories were about specifically and why these theories led to the author's hypotheses or general prediction.

i.e. Don't just list theories. Why are they here, how do they help (like gambling addiction helping research on mobile phone and gaming addiction{see slide #10})

2. Data [empirical results alone] Are Not Theory

Example: Hammer (1978) has investigated the relationship between union strength and construction workers' reactions to their work. She found that union strength (operationalized in terms of workers' relative wages) was positively related to both pay satisfaction and perceived job security [an empirical relationship only].

Finally, the union's ability to formally increase members' participation in job-related decisions has been frequently cited as contributing to the unionization of teachers and other professionals (e.g., Bass and Mitchell, 1976...) [also an empirical relationship].

Note: There is no attempt in this paragraph to explain the logical reasons why particular findings occurred in the past or why certain empirical relationships are anticipated in the future. We only learn from the paragraph that others had reported certain findings, and so similar patterns would be expected from the data. This is an example of brute empiricism, where hypotheses are motivated by prior data rather than theory.

The key to the 'what theory is not' is the lack of a 'why' something is occurring, which comes from the theory but the author must explain the why (for the theory paper and for the author's own paper – i.e. how does this apply)

Example – Behavioral theory of the firm (BTOF) vs Kahneman (Prospect theory) and RBV – Why BTOF and RBV – what do they explain, why relevant (to pre-WTO & post-WTO), and especially why certain basic empirical outcomes (hypotheses) will be expected.

Theory's importance and theory contributions

Difficult to over-emphasize the importance of theory in science and academia.

What is theory:

Theory broadly is a statement(s) of 'what causes what' and 'why' (explain a phenomenon), and perhaps under what conditions.

Theory also allows scientists to describe and explain a process or sequence of events (DiMaggio, 1995; Mohr, 1982).

And also, not just explain, but to try to predict outcomes of interest (Kerlinger & Lee, 2000), and direct inquiry in a productive way

e.g. **ulcers and stomach acid / hormones vs bacterial** { H Pylori bacteria } – thus infectious disease and antibiotics instead of endocrinology, for common ulcers). (see slide #8-9)

[See Sutton and Staw (1995) – What theory is not. ASQ; also AMJ edit or articles, 2011, 2012.

Good theory illuminates, bad theory can lock-out the search for other answers – e.g. Dr. Barry Marshal and peptic ulcers and bacteria (new research contributes to theory by improving theory around this topic (i.e. extending bacteriology to ulcers) {also practice contribution}

- Dr. Barry Marshall won the Nobel prize in medicine for his study on peptic ulcers and its main cause, *H. pylori*. He actually drank a solution with *H. pylori* in it to illustrate its causal role.
- This was first reported widely in the *National Enquirer*. Later, [The New York Times](#) published an article by its medical writer, Dr. Lawrence K. Altman on the possible link between *H. pylori* and common ulcers. Dr. Altman stated in in 2002, "I've never seen the medical community more defensive or more critical [and opposed] of a story" since he joined the Times in 1969.
- These problems again occurred during Covid (against Drs seeking simple mitigating therapies for Covid – had their grants cancelled etc).

Good theory illuminates, bad theory can lock-out the answers (con't) – e.g. Dr. Barry Marshal and peptic ulcers and bacteria (new research contributes to improve theory {and practice} on ulcers)

- **The medical profession** (especially the big GI surgeons and the gastro-endocrinologists) was strongly against the idea. Later, they said that the H. pylori theory “had to be wrong.”
- They refused to consider it (that is, look in the theory area that it was not hormones or stress or food causing many ulcers, but rather it was bacteria.
- **Think of the implications of this type of thinking for science (and policy) – looking for stomach acid problems or hormones, when the answer is bacteria (i.e. the specialists were perhaps never going to find the answer, it had to come from outside) – like allowing innovation along only one line of technological direction or standard. Also improving external validity.**

Good theory helps researchers (and practitioner / professionals) to search for answers – Addiction research (i.e. how helpful findings contribute to theory and empirical evidence, and even research design)

- Good theory helps researchers (and practitioner / professionals) to search for answers in the right areas and not in areas that are unproductive or incorrect (but be careful about always limiting
- For example, **research from NYU sociologist Jonathan Haidt shows that mobile phone addiction** (social media and games) in kids and young teens has likely led to an increase in mental illness problems (Haidt, J. 2024. The Anxious Generation: How the Great Rewiring of Childhood Is Causing an Epidemic of Mental Illness).
- To treat this, theory and evidence / recommendations on addiction to other things can be used.
- But what other addictions? Turns out, alcohol addiction is different from drug addiction. Both are different from other addictions (cigarettes, gambling).
- The effect that **gambling (addiction) has on people is similar to phone addiction**. The past theory and research (and an understanding of the mediators and underlying effects such as hormonal changes) helped researchers understand mobile phone addiction with treatments discussed (this did not work for the previous drug addiction research) – **this is a type of theory contribution (theory improvement -- improving external validity , that is, applying the theory to a new area)**

So theory is important in contributing to the search for answers (and hopefully searching in the right place). But research should also contribute to theory. Thus what are 'theory contributions?'

Although the discussions above reveals multiple definitions of theory, and its application, and also suggests how theory 1) helps new research (mobile phone addiction), but also that 2) research can contribute to theory and direct inquiry into productive areas (H-pylori bacteria / infectious disease as a key cause of stomach ulcers, not endocrinology).

Journals (and editors) call for our papers to especially make **theory contributions (like these)**. What else are “theory contributions?” Some general categories have emerged:

Theory contributions (tests theory, builds theory, improves theory)

- 1) A paper can contribute to theory by testing existing theory (including new moderators / new conditions, such as **applying it in a new area** {gambling research to mobile phone addiction research, bacterial infection to the study of common stomach ulcers} **or a new region** {e.g. Asia / China} – **testing external validity**).
- 2) A paper's theory contribution can build new theory (adds new variables, new direction – also conceptual papers do this)
- 3) And the extent to which a paper improves theory (identifying new mediators {mechanisms} extending it -- **improving internal validity**).

1) Theory testing -- Good theory helps researchers (and practitioner / professionals) to search for answers –

Start out with #1 (the most familiar example) – i.e. Contribution to theory by ‘theory testing.’ The extent to which a paper tests existing theory, initially testing internal validity, and later external validity (new conditions, research sites).

JB Miner (2003) rated the estimated scientific validity of 73 theories found in management. A set of OB and strategy scholars then rated the perceived importance of the theories to the management literature, and he estimated scientific validity of each theory.

Of the 73 theories identified in the review, only 25 were rated as high in scientific validity. Jeffrey Pfeffer (2006) found similar results in examining evidence-based practice.

Such results illustrate the importance of theory testing (and thus adding validation to a theory)

Miner, J. B. 2003. The rated importance, scientific validity, and practical usefulness of organizational behavior theories: A quantitative review. *Academy of Management Learning and Education*, 2: 250–268.

Theory testing (con't) – theory contribution examples

Initial studies done on group pressure (social proof) and its influence on individual decision-making (some done by social psychologist, Solomon Asch). They showed that about 70% of the people regularly go along with a 'group,' even they know the group's decision is probably wrong.

- 1) The **empirical contribution** of this types of social proof studies would be the finding and perhaps a similar research site (just testing on a different sample – i.e. vary the group or cause, such as in tourism studies – 'do tennis tournaments increase tourist arrivals?' vs. 'do major bicycle races increase tourism arrivals?' Or testing in a different country – empirical contribution).
- 2) The **theory contribution (though theory testing)** would be a further confirmation of social proof theory in this case, and perhaps with different types of decisions (from following a crowd to simple choice questions / more technical questions). Many other studies followed on groups, decisions, peer pressure, and in different countries. That is, testing the theory, but not just replicating studies (though replications can carry a contribution – see Eric Tsang in AMR (October, 1999)).
- 3) A study in a **'new country'** is a different research site, as the example in #1 above – but a much different research site could be a vanilla empirical contribution or may have some added potential theory (such as culture) is more of a **theory contribution** than just a different sample (as in #1).



Solomon Asch

Theory testing -- Asch's Conformity (Line) Experiment

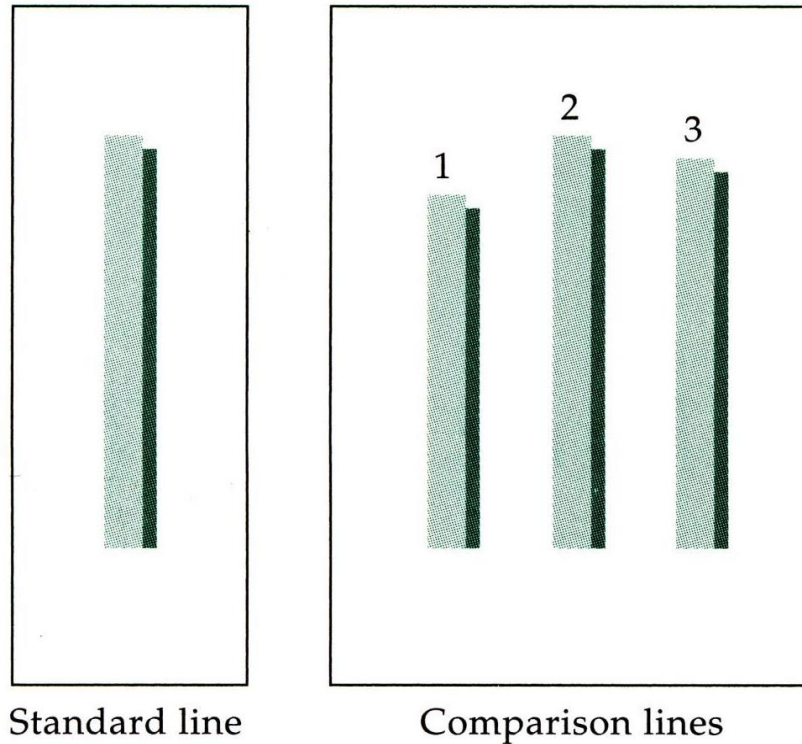
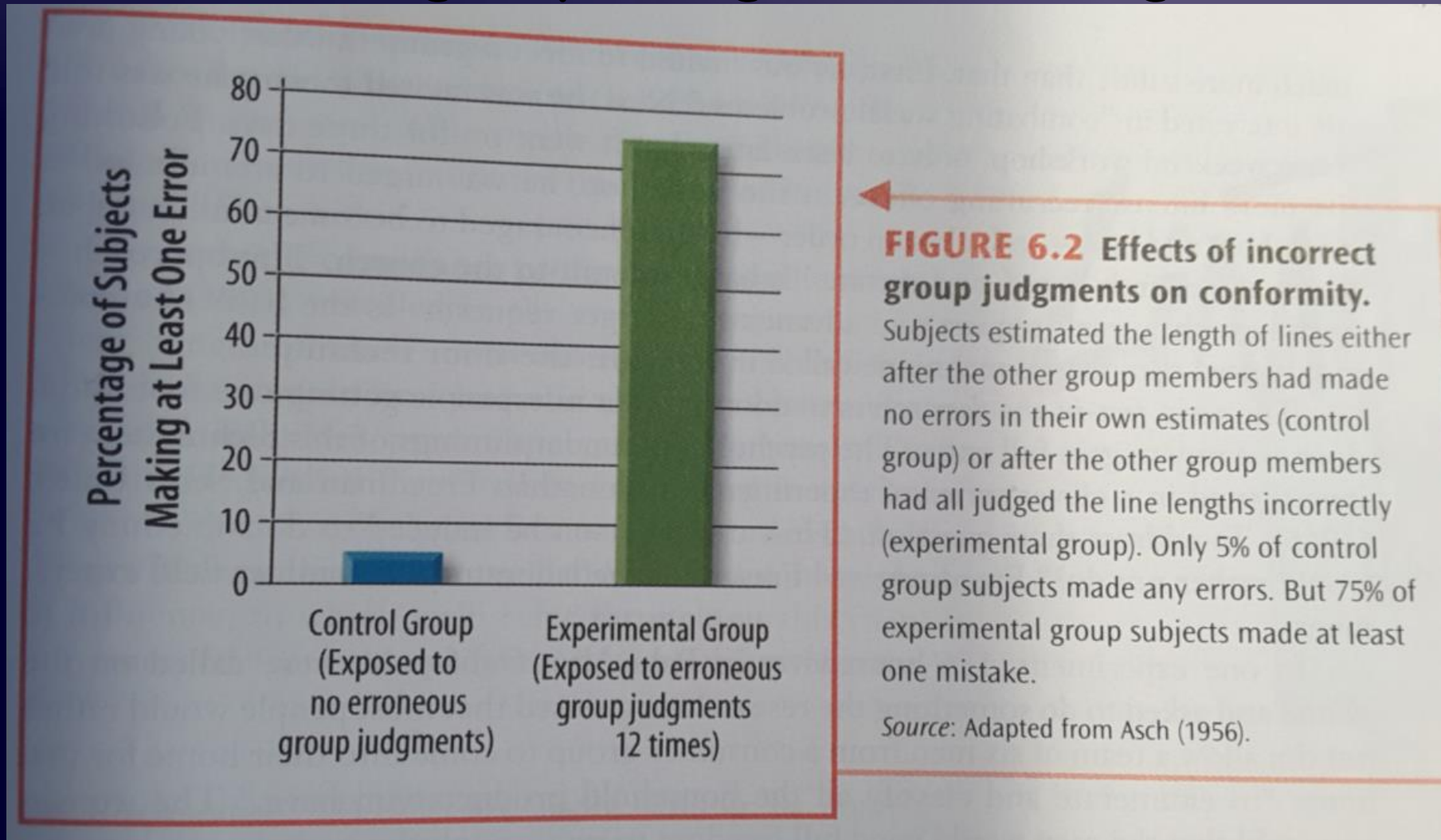


FIGURE 14-1
Sample comparison from Solomon Asch's conformity procedure. The participants judged which of three comparison lines matched the standard.

Asch's Conformity (Line) Experiment. About 75% followed the group and gave the wrong answer



Later, Gregory Berns at Emory University improved Asch's Conformity (social proof) theory by retesting and identifying key mediators.

Good theory testing helps researchers contribute to a theory's validity (and its potential use)

Apart from regular empirical theory testing, other theory contributions to validity could be through meta analysis.

The validity of IQ tests and their application was partially discovered through meta analysis (Schmidt & Hunter's work).

General mental ability (intelligence) is the dominant determinant of the large individual differences in work output on the job revealed by research, maybe explaining about 25-33% of the variance of job performance, depending on the job.

The additional findings helped to further establish GMA (and IQ tests) value in predicting job performance, especially at higher levels. Studies that test this and clarify it provide significant theory contribution (strengthening the theory's validity).

Hunter & Schmidt (1996) also found that highly visible individual differences in citizenship behavior on the job make that intelligence-performance relationship harder to observe in everyday work-life. Studies that clarify this will further test (or give improvement) to the IQ – performance relationship.

2) Theory contribution -- Theory building

Theory building is usually not thought of for 'contributions.' Using it is thought of as part of conceptual or qualitative research, which it often is (just to summarize):

- Theory building from cases** involves using empirical evidence from one or more cases to create theoretical constructs and propositions (Eisenhardt, 1989b; Eisenhardt & Graebner, 2007).
- Grounded theory** involves an iterative process of collecting and analyzing data in order to build a theory about how actors interpret their daily realities (Glaser & Strauss, 1967; Locke, 2002; Suddaby, 2006).
- Ethnography** involves gaining first-hand experience with a research setting in order to build a theory that describes the views of those under study (Atkinson, Coffey, Delamont, Lofland, & Lofland, 2002).

Other (mostly qualitative) research designs are also used in theory building (see John Creswell & Cheryl N. Poth (2024). Qualitative Inquiry and Research Design: Choosing Among Five Approaches (5e).

Regardless of the specific methods used, inductive empirical articles typically conclude with a set of propositions that summarize the resulting theory.

Theory contribution -- Theory building

But also, empirical (hypothesis testing) articles can also build theory, though different from qualitative / conceptual fashion.

As noted, early tests of a theory are typically concentrated on establishing the validity of the theory's core propositions. In subsequent tests, researchers begin exploring the conditions (research site, moderator) that reflect the theory's boundary conditions. That is, 'does this theory work in Mainland China?' Or more generally, in emerging economies? And under certain conditions?

For example, research on motivation added to the validity of Expectancy (VIE) theory by testing hypotheses multiple times on Major League Baseball players and their salaries / performances. Subsequent research studied Expectancy theory with similar predictions for other contract professionals. And additional conditions (moderators) were added such as country and gender. This helped to build the theory as variables were clarified and the external validity enhanced.

A little different from just testing the theory in another country, or just another sample. It is a qualitatively different type of sample (highly paid professionals vs manufacturing line workers).

So theory building goes first, then theory testing. But more theory building can occur with additional external validity checks (some overlap with empirical contributions here – eg turnaround and changing the CEO – in Thailand?)

3) Theory contribution -- Theory improvement –

Be sure you are working with the right theory and research

- Behavioral intentions [and the Theory of Planned Behavior]
- The theory of planned behavior is used to understand and predict behaviors
- Behaviors are immediately determined by ‘behavioral intentions’ and behavioral intentions under certain circumstances, perceived behavioral control, norms / values, and attitudes toward the behavior and goal.
- See example (below) and some recommendations on how to improve this theory

Theory improvement: Behavioral intentions and entrepreneurship ('intention to be an entrepreneur) – contribution to entrepreneurship research (and not psychology)

- I see many papers on entrepreneurial (behavioral) intentions. Most of these papers are positioned using the Theory of Planned Behavior.
- Thus, they examine the effect of attitudes, social norms, personality factors, and perceived behavioral control and new conditions, etc. on the behavioral intentions (intention to become an entrepreneur or innovator). They are usually reasonably well-done studies
- Most of these studies confirm the expected statistically significant relationships between the effects of attitudes, personality, social norms and perceived behavioral control on behavioral intentions.
- Although they occasionally find the relationship between one of these independent variables to be non-significant. They seldom find relationships in the opposite direction than expected (i.e. something maybe hindering the intention to behavior toward entrepreneurship – a negative finding could be a theory improvement / clarification).
- Occasionally, some other interesting independent or moderator variables are introduced. But usually, however, the only fairly different (potential contribution) aspect of the research is the different country context (moderator) in which the research is conducted.

Theory improvement -- Behavioral intentions and entrepreneurship (intention to become an entrepreneur)

- **But, these papers seldom go beyond behavioral (entrepreneurial) intentions measures to actual behavior.** They stay with (mostly) individual variables and their link to the 'intention to behave' (not the actual behavior or even some behavioral outcome).
- All of this research is valuable at some level, and these do provide consistent, if partial, support for the theory of planned behavior {a psychology theory}.
- **But, given that we know a lot about the theory of planned behavior (and intentions),** and maybe that researcher is submitting the paper to an **entrepreneurship journal** that publishes entrepreneurship work, does this type of behavioral intention work actually advance our understanding (contribute to) on entrepreneurship (theory, empirical evidence, practice)?
- It would be good if the studies submitted on behavioral intentions would include a first step action also (i.e. starting the behavior toward entrepreneurship). That would be better for entrepreneurship journals (go beyond psychology models only).

Theory improvement -- Behavioral intentions and entrepreneurship

- A key concern (for editors and reviewers) about this type of research is that it should probably involve temporal (time) considerations. That is, we are not told when an intention creates a behavior, and does it create that behavior? What do they do with those intentions (this is of more interest to entrepreneurship research than just measuring intentions).
- Also, are the intentions to start a business formed many years prior to actually starting a venture? To what extent (and in what situation) are intentions formed in closer proximity to the actual behavior (say, for example, three months or six months or a year)?

Theory improvement -- Behavioral intentions and entrepreneurship (con't)

- A related problem with behavioral intention only and entrepreneurship is the question of whether entrepreneurial activity is often actually unintentional.
- Research on the large number of accidental entrepreneurs and the significant volume of successful necessity entrepreneurs would seem to represent cases
- Many people never considered starting a business, but become entrepreneurs because they just got going and it seemed the business was working -- people are willing to pay for something they do as a hobby or to meet a personal need.
- Entrepreneurship can suddenly arrive with little planning, just taken on, little by little (like the acting profession for some people also – 5 years, try another 5 years, like James Garner said).

Theory improvement -- Behavioral intentions and entrepreneurship. Really using the theory of planned behavior to explain entrepreneurship

- More attention should be devoted to understanding the extent to which intentions turn into **(actual entrepreneurial and innovative) behaviors**, and how this works.
- In addition, given that launching a venture is a journey of many steps, what aspects of intentions (including strength of intention) ensure the entrepreneur does not stop after pursuing a few steps only.
- **Other examples of research questions** might include investigations into whether the pursuit of entrepreneurial behaviors varies depending on how long one has had the intention.
- **Similarly, while context (country) matters**, we need to better **understand what it is about certain contexts (countries / cultures) that create intentions that later result in behaviors.**
- **Researchers should not lose focus of interest (in this example), which is entrepreneurial actions, new venture creation, and their outcomes. Just correlating more variables with stated intentions (often from undergraduate students) provides more evidence of the causes of behavioral intentions, but not actual behavior or other key outcomes.**

Theory improvement – other examples

- Identify a new variable
- Identify a mediator
- Identify and study a moderator (this can be an empirical contribution also if the moderator is already well-known, like culture).

What theory contributions are not

- What you did in the paper (a new approach could be a contribution, probably to method or research design, but must explain this). In general, what you did (in studying this problem) is **NOT a contribution** – i.e. “Our contribution is we collected 5000 surveys, and we used a ‘scraping technique’ and then SEM...”
- **Not a contribution** -- This paper contributes to the literature on entrepreneurial partners with its exploration of ... Don’t “contribute to the literature.” Don’t extend the literature, etc.
- **Not a contribution** – Different from past research, our study focuses on this ... [the finding has to be quickly explained – ok to contrast your work with others (that is a motivation), but just doing something differently is not a contribution].
- What did you find or learn by the process, that will be helpful to the field in some way, and what specifically are you contributing?

Theory contributions are very important

- Usually a paper should provide contributions to theory, to empirical / case evidence, and practice, and others (e.g. research methods, policy. Some differences with conceptual papers).
- In particular, contributions to theory are very important.
- Papers that **supply empirical contributions only** (i.e. studying EV industry strategy in India, or SE Asia, or a comparative case on China's auto industry to examine an existing theory) probably is not enough for the better journals.

Helpful sources on theory contributions (and theory building)

Colquitt, J. A., & Zapata-Phelan, C. P. (2007). Trends in theory building and theory testing: A five-decade study of the Academy of Management Journal. *Academy of Management Journal*, 50(6), 1281-1303.

Fisher, G., Thatcher, S. M., & Makadok, R. (2023). The AMR Origins Series: Demystifying the Theory-Building Process. *Academy of Management Review*, 48(2), 173-180.

Geletkanycz, M. & Tepper, B. J. 2012. From the editors: Publishing in AMJ - Part 6: Discussing the implications. *The Academy of Management Journal*, 55(2) (April 2012), pp. 256-260.

Makadok, R., Burton, R., & Barney, J. (2018). A practical guide for making theory contributions in strategic management. *Strategic Management Journal*, 39(6), 1530-1545.

Any questions?

