

Why branch attitude questions?

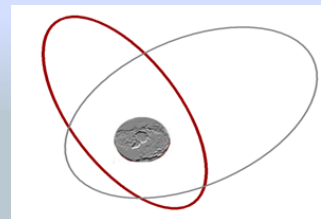
Theoretical and Methodological Considerations

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How many points are optimal for a rating scale?

Is it better: a numerical scale,
a partially labeled scale,
or a fully labeled scale?

How many points are optimal for a rating scale?

Is it better: a numerical scale,
a partially labeled scale,
or a fully labeled scale?

With branching format
all the answers given to these questions
may change!

What is branching

A branching question instead of asking directly the position in a bipolar scale employs **two steps**:

- Asks **first the direction**
“Are you satisfied or dissatisfied?”
- and **after the extremity**
“How much? A little, somewhat, or a lot?”

When branching

Branching is useful for measuring, with a rating scale,

- In general: **Bipolar constructs**
- Specifically: **Attitudes**

Attitude measurement potentially represents the **main field** of application of branching scales and branching research

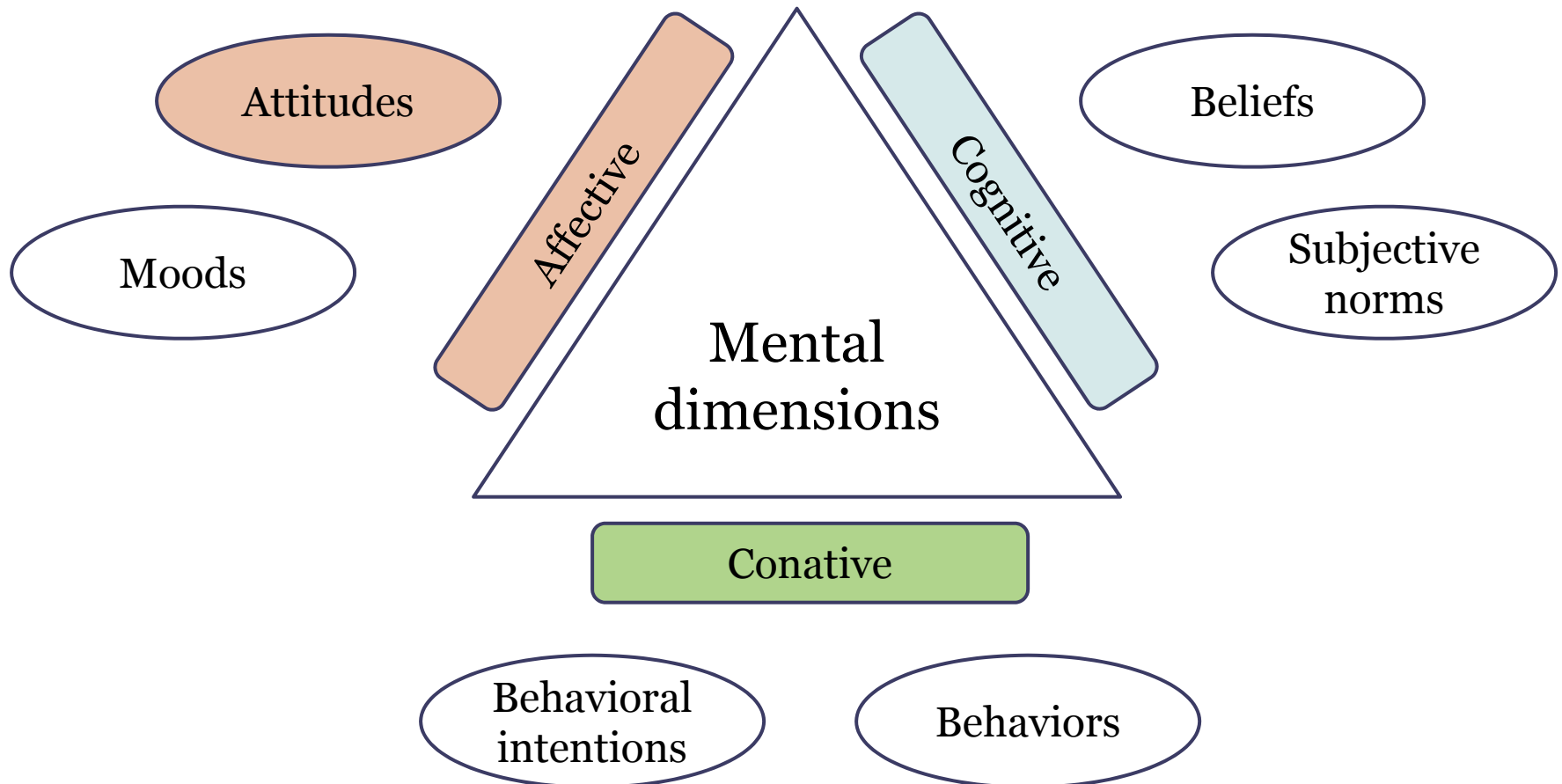
Attitudes: Bipolar constructs

- Attitude is a controversial concept, but
- The uncomplicated definition given by Thurstone (1931) included all the 3 elements closely connected to its measurement:

*“Attitude is the **affect** [1] **for or against** [2] **a psychological object** [3]”*

Attitudes: Bipolar constructs

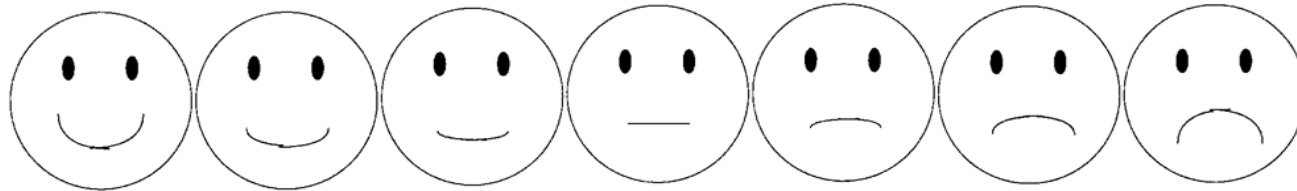
- **Affective-emotive dimension** (Fishbein and Ajzen, 1975)



Attitudes: Bipolar constructs

- **Bidirectional**

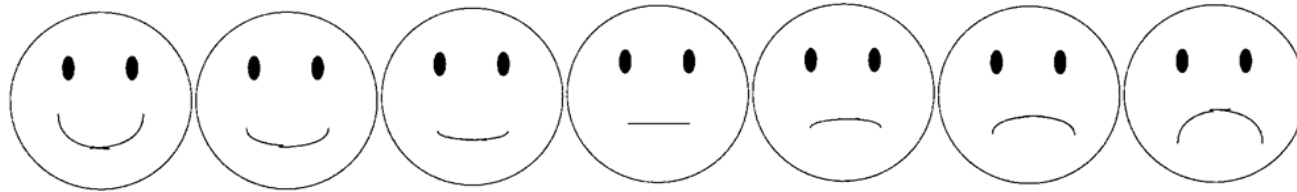
Attitude must be measured by employing “*a procedure which locates the subject on a bipolar affective or evaluative dimension*” (Fishbein and Ajzen, 1975)



Attitudes: Bipolar constructs

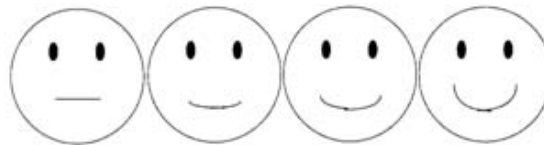
- **Bidirectional**

Attitude must be measured by employing “*a procedure which locates the subject on a bipolar affective or evaluative dimension*” (Fishbein and Ajzen, 1975)



- and not two separate evaluations

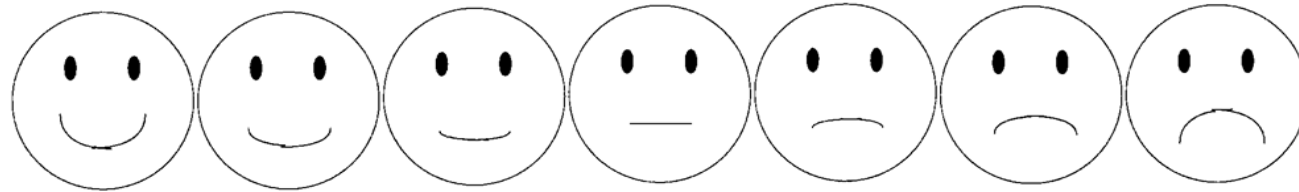
- Positive feeling



Attitudes: Bipolar constructs

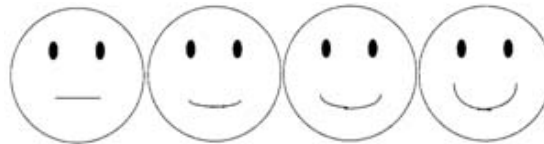
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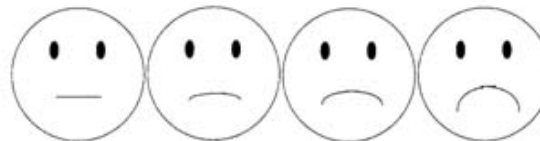


- and not two separate evaluations

- Positive feeling



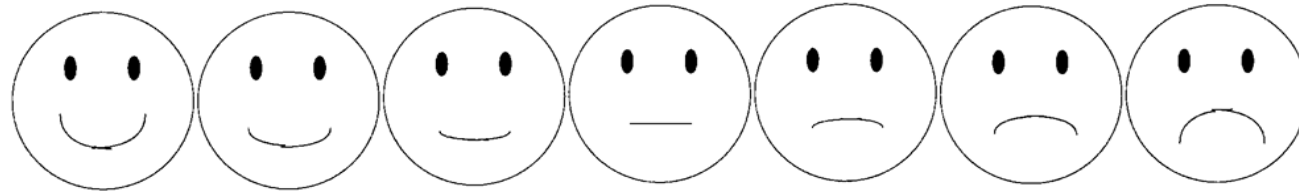
- Negative feeling



Attitudes: Bipolar constructs

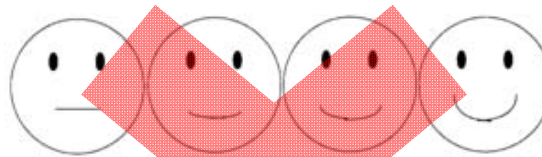
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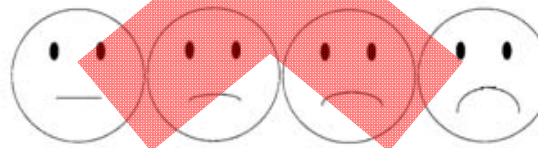


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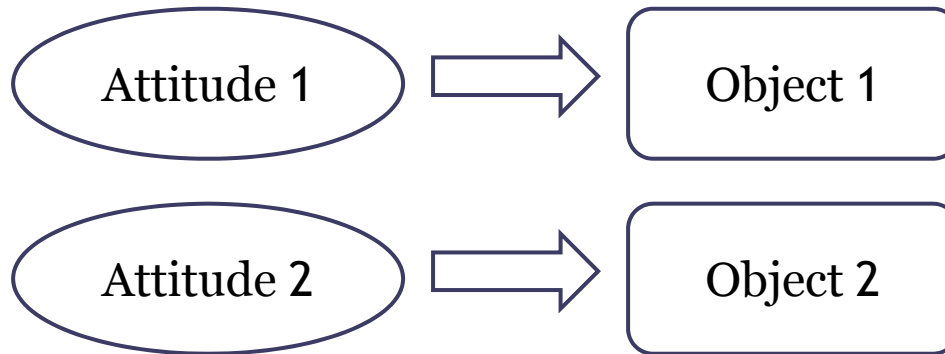


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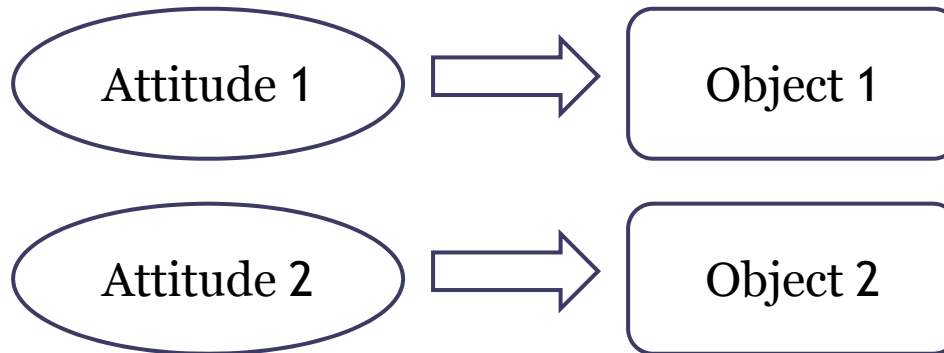
Attitudes: Bipolar constructs

- **Holistic evaluation of only one entity**

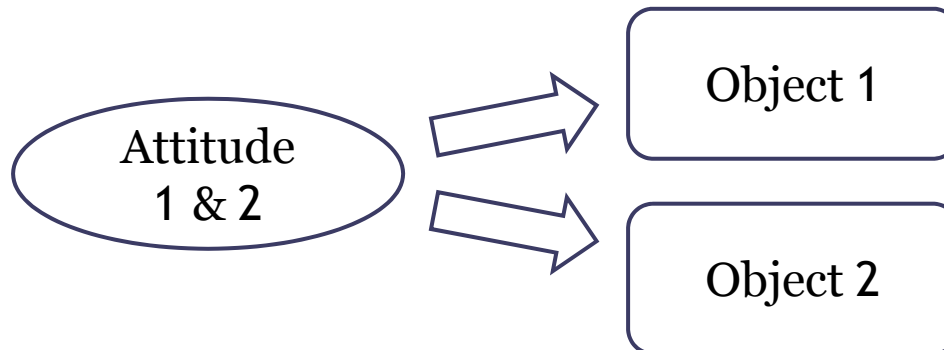


Attitudes: Bipolar constructs

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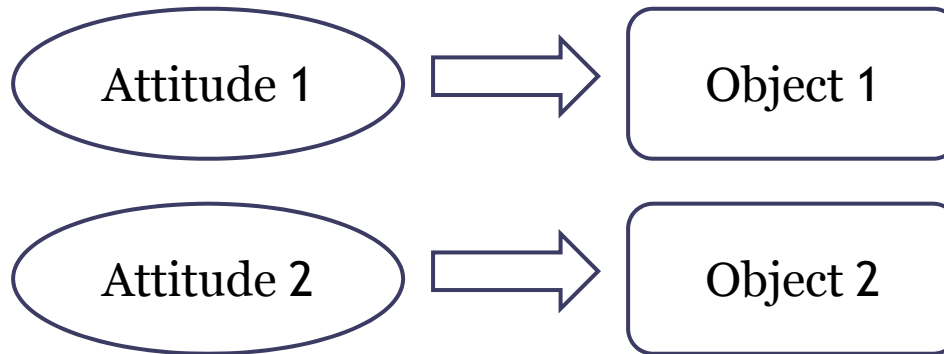


- and not of multiple subjects, objects or situations.

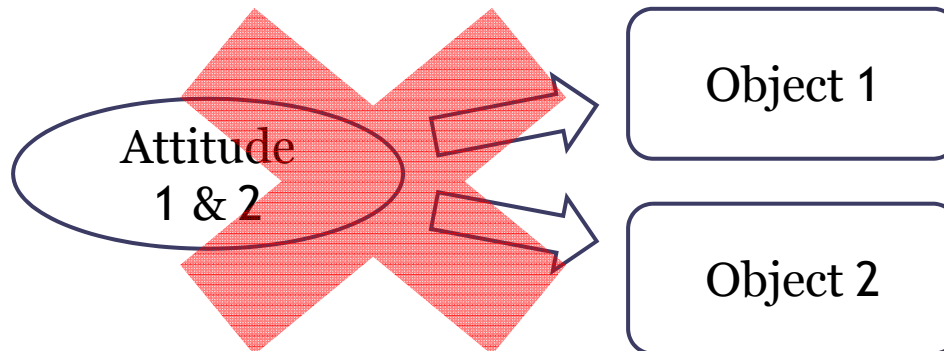


Attitudes: Bipolar constructs

- **Holistic evaluation of only one entity**



- and not of multiple subjects, objects or situations.



Attitudes: Unipolar or Bipolar scales?

Attitude is bipolar and requires bipolar rating scales, so:

- A **unipolar verbally labeled** scale is incorrect

Not at all
satisfied

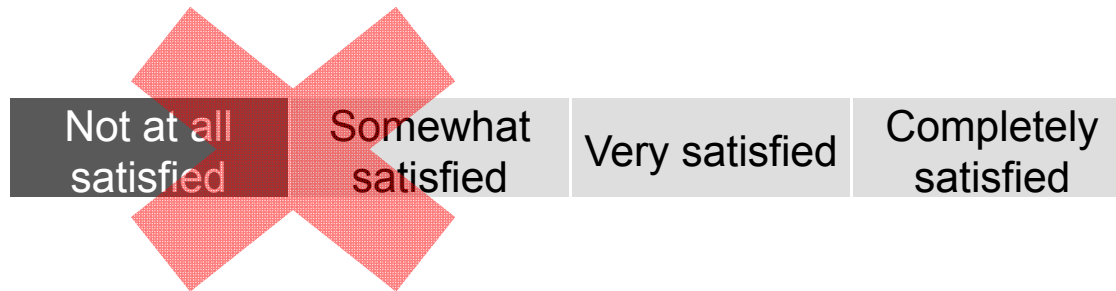
Somewhat
satisfied

Very
satisfied

Completely
satisfied

Attitudes: Unipolar or Bipolar scales?

Attitude is bipolar and requires bipolar rating scales



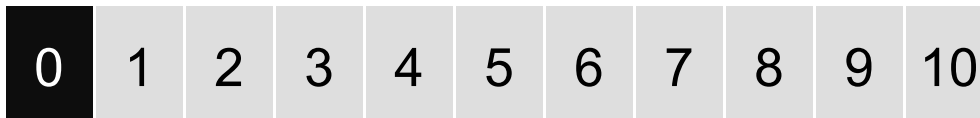
- A **bipolar verbally labeled** scale is **correct**



Attitudes: Unipolar or Bipolar scales?

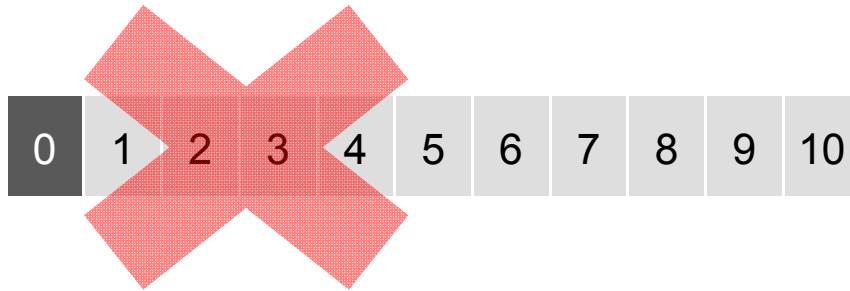
Attitude is bipolar and requires bipolar rating scales

- A **unipolar numerical** scale measuring satisfaction is incorrect



Attitudes: Unipolar or Bipolar scales?

Attitude is bipolar and requires bipolar rating scales



- A **bipolar numerical** scale is **correct**



Why branching?

Why branching: Traditional view

Main reason given to branching:

- **Simplification** the judgment task

Decomposition principle (Armstrong, Denniston, & Gordon, 1975)

Reducing a complex decision task into a series of **smaller and simpler decision tasks** allows people to make **better judgments**

Why branching: Traditional view

Other reasons:

- **Explore the midpoint** information
- **Less burdensome** for respondents to a **telephone** interview
- Effectiveness of **two-category** scales to reliably capture the **direction** and also of **longer scales** to measure the **intensity** (Alwin, 1992)

Why branching: Hypothesis

The crucial reason here suggested:

- Branching scales might have the

**Same unit of measurement
for both sides**

Asymmetry of rating scales

Saris and Gallhofer (2007)

Symmetric scales are less valid and reliable than



Asymmetric scales (fewer negative categories)



Asymmetry of rating scales

That means:

- The **power of discrimination** of the positive side **is different** from the negative because the distance between the categories is different
- There are **two different units of measurement**

Asymmetric scales (considering the unit of measurement)

Negative

Positive



Asymmetry of rating scales

- **Negative labels, both verbal and numerical, are not symmetrical** with their positive equivalents
- The negative part is **conceptualized** and **used** by respondents **differently** compared to the positive part
- Negative answers, on any scale, belong to a **different system of measurement** from positive answers

Asymmetry of rating scales

- Employing **asymmetric scales**, as suggested, is not the best solution, because the **two directions** have **not the same probability** to be chosen
- The bias resulting from the asymmetry might be reduced **using branching** and **removing reference** to either the positive or negative direction **in the second step**

FIRST STEP

 Positive

 Negative

SECOND STEP

Intensity



(“a little”, “quite a bit”, “a lot”, “completely”)

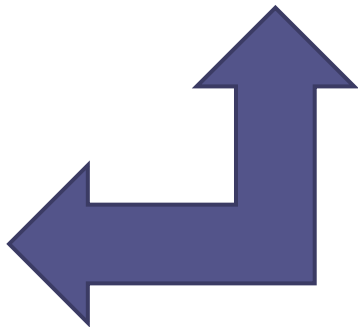
Bipolar construct and Bipolar scale

- Visual representation of a bipolar construct in a bipolar scale:

- Common sense (the same of the theoretical view)



- Alternative perspective (less natural, never used)



Why branching numerical scales

- Branching solve 2 problems of unipolar numerical scales for measuring bipolar constructs
 1. the **scale is bipolar**, so it is also correct
 2. the **midpoint logic** is the **same** of **respondent's midpoint** (no errors due to misunderstanding of direction or intensity of the numeric answer)

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 1. the **scale is bipolar**, so it is also correct
 2. the **midpoint logic** is the **same** of **respondent's midpoint** (no errors due to misunderstanding of direction or intensity of the numeric answer)
- And solve the main problem of bipolar numerical scales
 3. **no positivity bias** caused by using **negative numbers** (people simply avoid minus numbers because they don't use them in everyday life)

Branching research

Problem of branching the midpoint

- **Second step for the midpoint** to probe whether respondents in the middle are leaning toward one of the two directions or really in the middle:

That means **remeasuring the direction** and **not measuring the intensity**

so the result might be the measurement of **another dimension**

obtaining a **classification** and not a scale

Improving telephone interviews

- **Satisficing behaviors nonbranching the midpoint:**

If respondents in the middle receive only one step a larger number of them could choose the midpoint, because less burdensome (Groves and Kahn, 1979)

- **Vulnerability** of branching

HIGHER AMOUNT OF MISSING DATA VALUES

generated by the twice more chances that respondents have to answer “don’t know” along two steps (Miller, 1984)

Branching reliability and validity

Krosnick & Berent (1993)

- Study 5, 7 and 8 **compared** for the first time **one- and two-step** versions of **fully verbally labeled** scales

Branching format showed higher reliability (test-retest) **and validity** (correlation with other variables criteria)

How branching

- 1. Do not branch the midpoint to improve the scale**
(you will obtain a classification and not a scale)

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(it will have higher probability than the other scale points and it will generate respondents' satisficing behaviors)

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3. Use more than 3 categories in the second step
(answering the extremity is less burdensome and this improvement allows respondents to express closeness to the middle likewise and gains higher discrimination)

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(add the option "I answered the direction only because I was forced", or better "My real position is in the middle)

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Thanks

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