HOW TO CONDUCT RESEARCH ON INTERPERSONAL ATTRACTION USING THE TWO-DIMENSIONAL MODEL OF ATTRACTION

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Brief description

The two-dimensional model of attraction (TDMA) posits that affective and behavioral attraction responses are determined by two cognitive assessments: willingness (perception of the target person's willingness to facilitate the perceiver's interests) and ability (perception of the target person's ability to facilitate/hinder the perceiver's interests). As a general rule, with a more positive willingness and/or ability assessment, the more affective and behavioral attraction that results. However, fun and interesting effects (e.g., high affective attraction but low behavioral attraction) can result when forces are present to generate the absence of attraction given high ability or high willingness (e.g., fear of rejection from an attractive person).

The goal of this document is to provide: (a) an overview of the TDMA, (b) a description of common manipulations of attraction given TDMA, (c) a "roadmap" for developing constructs necessary to test attraction given TDMA, (d) an informal evaluation of some popular measures as they relate to TDMA, and (e) a discussion of a few issues important to testing attraction given this framework.

NOTE: Please do not cite this document. It is intended to be an informal description of some of the issues that face attraction research using the TDMA. As one will note, this document includes my personal views on some topics. I am currently in the process of writing several papers that more clearly and completely describe the ideas contained within. If you feel the need to cite this document, feel free to e-mail me, and I'll see whether I've got a better citation/paper for you.

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Assessments of the TDMA

Willingness

What is it? Refers to the degree to which the target person is evaluated as willing to facilitate the participant's interests/goals

How is it measured?

a. Assessment of benevolent intent/trust/willingness: Assessed with a questionnaire that taps into the degree to which the participant believes that the target person will facilitate his/her interests/goals.
b. Assessment of perceived acceptance: Research has noted a pretty good correlation between "perceived acceptance" (i.e., the degree to which the participant believes the target person likes/accepts him/her) and benevolent intent/trust/willingness. In my mind, perceived acceptance is the best and easiest "real world" operationalization of willingness. As of this writing, who knows how willing reviewers will be to equate the two.

Ability

What is it? Refers to the degree to which the target person is evaluated as possessing the qualities necessary to facilitate (or hinder) the participant's (potentially) domain-specific goals/interests.

How is it measured?

a. The most tricky assessment to measure. This is a domain-specific assessment that should relate to the relevant assessment given the demands of the task.

Behavioral attraction

What is it? Reflects the participant's preference or tendency to act in an approach-oriented fashion toward the target person

How is it measured?

a. Self-report behavioral questions: The most common way of assessing "behavioral attraction." The questions focus on the participant's preference to act in an approach-oriented fashion toward the target person.
b. Actual behavior: Note that the above definition defines this as a preference or tendency to act in a particular way. The measurement differences between actual behavior and intended behavior have been hazy and mismashed in the literature. I'm currently working on papers that will better clarify the difference between the two as they relate to interpersonal attraction (methinks one day I will propose to cease measuring behavioral attraction using the self-reported behavioral tendencies).

Affective attraction

What is it? Reflects the quality of the participant's positive emotional response toward the target person

How is it measured?

a. Commonly measured using self-reports of the participant's positive emotional response to the target person
Popular Manipulations of Attraction
What do they do?

"I just want to get participants to like each other. Does it matter how I do that?" Yes! Not all manipulations of attraction are the same. Some act to grow attraction via willingness, others work via ability, and others work via both! The manipulation the researcher selects should be determined by a theoretically informed decision about why the participant will respond to the target person. If what is of interest is that the participants respond to the target person in a particular way because s/he believes that the target person is "quality person," then a manipulation of ability is apt. But if trust is of interest, manipulate willingness. The type of manipulation matters. A trustworthy salesperson (willingness) will inspire more sales than would a physically attractive (ability) salesperson. Most are more willing to affiliate with someone they know likes them versus someone who is "physically attractive" (e.g., Moore & Butler, 1989).

Physical attractiveness
What is it? People like those who are physically attractive. In the lab, this is done by manipulating the physical attractiveness of the person the participant will evaluate/meet/interact.

According to TDMA, how does it work? Technically, a manipulation of ability, but it may produce rather strong reductions in willingness when self-threat is present (e.g., expected future interaction which may cause rejection).

Intelligence or other domain-relevant dimension
What is it? See above, but replace "physical attractiveness" with intelligence or whatnot.

According to TDMA, how does it work? Technically, a manipulation of ability. But remember that the same issues may apply here as they do for physical attractiveness, as many will fear of rejection (i.e., low willingness) when interacting with someone "too" good.

The similarity effect
What is it? People like those who they believe are similar to themselves with respect to attitudes, personality traits, and/or values. In the laboratory, the most common manipulation uses Byrne's (1971) technique, in which participants are led to believe that another participant shares his/her views on a series of important attitudes (e.g., attitude toward war, abortion, discotheques, etc...). A full description of Byrne's method can be in Byrne (1971), and a review of research can be found in Montoya, Horton, & Kirchner (2008) and Sunnafrank (1991).

According to TDMA, how does it work? Similarity operates via both willingness and ability. Because of this, I consider it a rather "messy" manipulation and should be rarely used.

Reciprocity of liking
What is it? People like those who like them. In the laboratory, this is most commonly manipulated by making participants believe that their "interaction partner" is prone to accept or "like" them, or not. For a more complete description of this manipulation, see Montoya & Insko (2008), who adopted the procedure from McWhirter and Jecker (1967).

According to TDMA, how does it work? A manipulation of willingness.

A full theoretical description for each of these manipulations can be found in Montoya & Horton (in press)
Existing Measures of Attraction and TDMA Assessments
How do they jibe with the TDMA and are the measures any good?

This section provides some informal commentary on frequently-used measures of attraction, ability, and willingness. You will note that I have issues with nearly all of the measures (even my own)! In this way, this section could be considered a way of communicating the relevant issues when creating/modifying TDMA-related items rather than me anointing a scale as "good."

Byrne's (1971) Interpersonal Judgment Scale (IJS)

1. To what degree is the target person:
   a. intelligence
   b. morality
   c. knowledge of current events
   d. adjustment
2. How much do you think you will like this person?
3. How much would you want to work with this person?

Attraction is operationalized as the sum of the final two items. It is commonly preceded by four "filler" items (that comprise what I'd say is an ability assessment). Note that one of the attraction items is affective (i.e., "How much do you think you will like this person?") and the second is behavioral (i.e., "How much would you want to work with this person?"). It is "OK" to use the IJS (although I wouldn't advise it), but keep two things in mind:

1. Because one item is affective and one behavioral, only use the IJS in "no-threat" tasks (e.g., person perception tasks) when there is not the expectation that behavioral attraction will differ from affective attraction.
2. Attraction responds more dramatically to attraction phenomena when the attraction items are preceded by the four "filler" items (Montoya & Horton, 2004, 2012). It is likely because the "filler" items primed a salient assessment that then cause the relevant manipulation to produce more or less liking.

Rubin's (1974) Liking Scale

1. I think that _____ is unusually well-adjusted.
2. I would highly recommend _____ for a responsible job.
3. I have great confidence in _____'s good judgment.
4. I think that _____ is one of those people who quickly wins respect.

From the perspective of the TDMA, this is a measure of ability, not attraction, and should not be used to measure attraction. But if the researcher was interested in measuring ability, it could work. It would only work during a person perception task in which the overall, general and "undifferentiated" (an odd choice of word, no?) ability assessment is of interest (i.e., should be not be used, for example, during a dating study when physical attractiveness is important).
McCroskey and McCain's (1974) measure of interpersonal attraction
1. I think s/he could be a friend of mine.
2. It would be difficult to meet and talk with him/her.
3. S/He just wouldn't fit into my circle of friends.
4. We could never establish a personal friendship with each other.
5. I would like to have a friendly chat with him/her.
6. I think s/he is quite handsome (pretty).
7. S/He is very sexy looking.
8. I find him/her very attractive physically.
9. I don't like the way s/he looks.
10. S/He is somewhat ugly.
11. S/He is a typical goof-off when assigned a job to do.
12. I have confidence in his/her ability to get the job done.
13. If I wanted to get things done, I could probably depend on him/her.
14. I couldn't get anything accomplished with him/her.
15. S/He would be a poor problem solver.

From the perspective of TDMA, the social attraction subscale (Questions 1-5) is a measure of behavioral attraction, the physical attraction subscale (Questions 6-10) is a measure of ability (and should only be used in contexts in which physical attractiveness is a relevant assessment), and task attraction (Questions 11-15) is a measure of ability (and again, should only be used in contexts in which generalized task performance is relevant).

Montoya and Insko's (2008) measure of affective attraction
1. How unpleasant/pleasant do you feel about your partner?
2. How cold/warm do you feel about your partner?
3. How positive/negative do you feel about your partner?
4. How friendly/unfriendly do you feel toward your partner?
5. How distant/close do you feel to your partner?

I'm pretty sure I co-opted these from Herbst, Gaertner, and Insko (2003). I could see using this measure of affective attraction again. If I recall correctly, that fifth item was tricky (it reliability was a bit iffy) and might have to be dropped.

Montoya and Horton's (2004) measure of cognitive evaluation
1. My future interaction partner is probably well-respected.
2. My future interaction partner is probably good at everything that s/he does.
3. In general, how good a person do you think your partner is?
4. My future interaction partner will probably be successful in life.
5. My future interaction partner probably achieves all of his/her goals.
6. My future interaction partner could help me accomplish my goals.
7. I think that my future interaction partner would make a good leader.

What a terrible measure of "cognitive evaluation" (which we would now call an "ability" assessment). It has been trashed in a couple of published papers and rightly so. I don't like it and I would never use it again. It is too narrow, "leader-y," and "achievement-oriented" for my tastes.
Singh, Simons, Young, Sim, Chai, Singh, & Chiou's (2009) measure of attraction and trust

**Attraction**
1. I would like to meet my interaction partner.
2. I will probably like my interaction partner.
3. I look forward to meeting my interaction partner.
4. I would enjoy discussing controversial topics with my interaction partner.
5. I would like to get to know this person better.

**Trust**
1. In any upcoming task, my partner would act benevolently toward me.
2. If given the opportunity, this partner would probably exploit me.
3. My partner would take advantage of me.
4. This interaction partner would make me feel secure.
5. I would expect this interaction partner to play fair with me.

The measure of attraction is primarily a measure of behavioral attraction. Some of the items were adapted from Montoya and Horton (2004), and as noted in my description there, I don't like some of those items. With respect to the trust measure, I like it better than my 2008 measure (Montoya & Insko, 2008), and this version may have better reliability.

Montoya and Insko's (2008) Benevolent Intent Assessment
1. If given the opportunity, my partner would probably exploit my trust in him/her.
2. I believe that my partner will look out for my interests.
3. During the upcoming interaction with my partner, I believe that my partner will act benevolently.
4. If my partner were placed in a situation where s/he could gain at my expense, I believe that my partner would do so.

When I used this measure back in 2008, I found strong reliability among all of the items. When I last used it, I found much poorer reliability (I believe the middle two items correlated highly and the outside items correlated highly). I still like all of the individual items, though. The measure, apparently, could use some tweaking.

Campbell's (1999) measure of romantic attraction
1. How attractive do you find this person?
2. How desirable would you find this person as a dating partner?
3. How much would you actually like to date this person?
4. How would you feel about yourself if you were dating this person?
5. How do you think your friends would feel about you if you were dating this person?

Two of the items focus on living up to one's own or another's standards for behavior (I'm currently working on a paper that discusses how those different standards can affect behavioral attraction). The other three items are a mix of affective and behavioral attraction items. Overall, I wouldn't advise its use, but if one insisted on using it, only use it when (a) self-threat is absent (because of the mix of affective and behavioral items) and (b) behavioral attraction is generally sanctioned (e.g., don't use it when assessing same-sex relationships).
Montoya and Horton’s (2004) measure of interpersonal attraction

1. I would like to meet my future interaction partner.
2. To what extent do you want to work on the upcoming task with your partner?
3. I would probably dislike talking with my future interaction partner at a party.
4. I would enjoy discussing controversial topics with my future interaction partner.
5. My future interaction partner would probably not make a good friend to me.
6. How much do you think you will like your partner?
7. I would like to get to know this person better.
8. I think I would enjoy my future interaction partner's company.
9. To what extent are you looking forward to meeting your partner?

A bit long, but still an acceptable measure of behavioral attraction. I could see using specific items from this measure again in a study in which I assessed behavioral attraction to a target person during a laboratory study (although #6 is now looking a bit like affective attraction. And #7? I wouldn't use that again...).

Whitchurch, Wilson, and Gilbert's (2010) measure of romantic attraction

1. How much do you like this person?
2. How much would you like to work with this person on a class project?
3. How similar are you to this person?
   - I might be interested in him/her as:
   4. ...a casual acquaintance
   5. ...a friend
   6. ...someone I would hook-up with
   7. ...a potential boyfriend/girlfriend

From the perspective of the TDMA, this is not an advisable measure of attraction, affective, behavioral, romantic, or otherwise. Of the six questions, one is behavioral (interest in class project), one is affective (how much do you like), and one is a precursor to attraction (perception of similarity). Second, if the difference between "romantic attraction" and "interpersonal attraction" is an interest in a romantic relationship (rather than as a friend or teammate), then two questions about the target person as a casual acquaintance and friend do not belong.

Not included in my discussion here are measures of "actual behavior." I plan on including a review of those measures in the Beta Squadron Release.
Frequently asked questions

1. In what order should I measure everything?

There are several relevant considerations. First, to maintain the ability to test for mediation (of affective/behavioral attraction by willingness/ability), one must measure the mediator(s) before the dependent measure. Second, as is mentioned elsewhere in this document, we have found that the effects of attraction phenomena have a more powerful effect on attraction when the attraction assessment is preceded by the assessment of willingness/ability.

2. I found that neither willingness nor ability mediated attraction. What gives?

The first thing I would say is, "did you measure ability and willingness 'correctly'?" In other words, did the measure of ability capture the relevant dimension given your manipulation? For example, in a laboratory-based study on selecting teammates for a basketball team, I would expect the ability assessment to include an assessment of the target person's basketball skills.

3. Why did not behavioral attraction differ from affective attraction like the TDMA predicted they would?

Sometimes I find a nice differentiation between the components when I predict it (e.g., Montoya & Insko, 2008) and sometimes I don't. One is less likely to find the differentiation when the affective and behavioral attraction items are intermixed on a single questionnaire, as consistency and acquiescence biases are likely an issue. Rather than measuring self-reported behavioral items, measuring actual behavior would certainty help (I'm two for two when I do it).

4. I'm cool if I just use a measure of behavioral attraction to assess "attraction," right?

Iffy! Just because a participant expresses a desire to affiliate with the target person does not necessarily mean that the person "likes" the target person more. The desire to affiliate can be motivated by many different causes, including curiosity, need for information (are they really as good as they seem?), desires to reduce uncertainty (e.g., "I just want to know whether s/he likes me!"), among others!

5. I'm interested in dating and mate choice. Should I measure "romantic attraction" rather than "interpersonal attraction"?

Romantic attraction is a "subtype" of interpersonal attraction. Interpersonal attraction is the whole pie and romantic attraction is a small piece of that pie. What are the advantages of measuring this sliver, rather than the whole? At this writing, I don't see any. I am not aware of any systematic reviews or analyses on the topic.

Yeah, sure, specificity is always good, but I would expect the general "non-romantic" affective and behavioral attraction items to act nearly-identically to romantic attraction items. For example, I would expect "I feel positively toward. . ." (as an affective item) and "I want to affiliate with. . ." (as a behavioral item) to measure something pretty similar to "I want to date. . ." (as a romantic attraction item).
I could see the difference between "interpersonal attraction" and "romantic attraction" as meaningful if one was interested in conducting research that specifically differentiated between an "interest as a friend" and an "interest as a relationship partner." There is some research on the topic (e.g., Sprecher & Regan, 2002), but even they did not differentiate between "interpersonal attraction" and "romantic attraction."

This last point, incidentally, is something I have always been interested in studying. If, say, someone "likes" us but we do not "like" them, we do not necessarily want to lose them as a friend, we just don't want to date them. We've then got to play this game where we keep them at this 'optimal distance' in which we must regulate how much we express liking for them—we've got to push them away...but not too far...just in that right "optimal distance." If anyone is interested in this (and has a nice way of studying it), let me know!

References


