

Implicit Association Test

Joyce Ma and Jackie Wong

August 2004

THIS IS NOT A DEFINITIVE FINAL REPORT

FORMATIVE evaluation studies like this one often:

- **are conducted quickly**, which may mean
 - small sample sizes
 - expedited analyses
 - brief reports

- **look at an earlier version** of the exhibit/program, which may mean
 - a focus on problems and solutions, rather than successes
 - a change in form or title of the final exhibit/program

Mind – Formative Evaluation Implicit Association Test

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PURPOSE

- To determine if visitors are willing to ‘take a test’ at an exhibit, particularly one similar to tests typically administered in experimental psychology
- To identify visitor concerns and sensitivities around taking an Implicit Association Test, including privacy issues
- To survey the range of interpretations and reactions (believability, surprise) visitors have for the results
 - What it means for themselves
 - What it means for others
- To identify visitor questions about the test and its results

METHOD

- Cued Interviews
- Visitors were recruited individually from the area near the Store. We only approached adults English-speakers because of the reading level required for the test.
- Visitors were asked to take the test with a laptop computer that was linked to the test website: <https://implicit.harvard.edu/implicit/demo/selectatest.html>. We asked visitors to take the Gender IAT which is designed to reveal associations between science/humanities and female/male.
- Visitors sat on the bench next to the Bank of America ATM with their backs against the wall while the evaluator sat a few feet away facing away from the visitor. We hoped that this would give visitors taking the test some quiet and privacy on the museum floor.
- The evaluator gave visitors test instructions, started visitors on the appropriate test screen and answered any questions before the IAT began. Every visitor was told that they could stop the test at any time for any reason. (See Appendix A for the instructions we gave visitors.)
- After a visitor had finished the test, the evaluator asked a series of questions about the experience. These questions are in Appendix B. Note that we made sure that every question could be answered without the visitor having to reveal his/her results, and we explicitly told visitors that they did not have to share their test results with us.

PARTICIPANTS

- $N = 21$
- All adults
- Gender
 - 12 females
 - 9 males

FINDINGS

Did visitors sit through the entire test?

All but one (20 out of 21) of the visitors sat through the entire test. The one visitor who ended early was forced to stop because the laptop computer crashed during the test. In addition, , one visitor's friend, who had waited for her companion, remarked at the end of the interview, "if it's an exhibit, then it takes way too long. You should shorten the test."

What concerns did visitors have about taking an IAT?

We asked visitors if they felt at all uncomfortable taking the test at the Exploratorium.

- 13 out of 21 visitors did not feel uncomfortable or awkward at all.
- However, the other 8 visitors mentioned feeling:
 - A bit confused about what to do until they became more familiar with the test (3 visitors)
 - Self-conscious about making mistakes especially when a friend decided to stay and look over their shoulders (2 visitors)
 - Like a guinea pig in an experiment (2 visitors)
 - Apprehensive about the outcome (2 visitors)

We were particularly concerned about how visitors might feel about having a friend or family member look over their shoulders while they were taking the test. This could be a problem because many of the interactions on the museum floor are highly social with most visitors coming in groups. However, this test requires a single user to focus for a long (about 5 minutes) period of time on a solitary task. We asked visitors how they would feel if their friends or family watched.

- 13 out of 21 visitors would not object to having their companions watch.
- The remaining 8 visitors would rather take the test without spectators because:
 - Their friends and family would distract them from the task at hand (6 visitors)
 - They did not want to make a mistake in front of their companions (2 visitors)
 - They did not want others to find out they may be biased while they were taking the test (1 visitors)

All but one visitor felt comfortable sharing their results after taking the test. The visitor who expressed some reluctance explained:

Visitor11: I'll be comfortable with anyone that I know well, but I'll be hesitant to do this with my grand kids. teenagers are very sensitive. not that I don't think they are mature enough to discuss these things, but in case that it tells me I associate men with science, I don't want them to misunderstand that I'm sexist.

Everyone was willing to have their results included in a database as long as they remain anonymous.

How did visitors interpret the results?

Did visitors find their own results believable?

Results Believable?	Count (out of 20¹)
yes	8
uncertain	11
no	1

- 40% (8 out of 20) visitors found their results believable. These visitors gave various reasons for why they found the results believable:
 - The test seems to be ‘scientific’ (including coming from a reputable source) (5 visitors)
 - Visitor6: I think so. I assume if they’re using this for research, then it must be reliable
 - Visitor9: I think so. seems like it’s scientific
 - Visitor11: it doesn’t seem like this was one of those stupid tests that get sent to your emails. from what you said, seems like it has some scientific basis.
 - Visitor17: yes. because you can tell they arrange the words in certain orders and also switch the categories around so they can get at what you really think
 - Visitor18: it seems like a legitimate test. I think I can believe the results. [say more about that] I might not believe it if this is something that was sent to me in a spam. but it looks very professional and I trust that the museum would demand a certain quality in what they present.
 - They can explain the results by connecting it to something they believe (2 visitors)
 - Visitor1: I think bias does exist. the older you are the stronger it is.:
 - Visitor8: yeah, I can buy that I might have some implicit association between male and science. after all, it’s in our culture and ingrained in us. it’s unfortunate but it’s true
 - They took the test without ‘cheating’ (1 visitor)
 - Visitor11: I can believe my own results, since I know I didn’t do anything funny to try to cheat. I don’t know if I can believe other people’s results.
- A majority (60%) of the visitors were not completely convinced:
 - They felt that a test cannot say very much about a person (3 visitors)
 - Visitor4: not sure. I’m usually skeptical of tests. I don’t think 10 min can determine that much about a person.

¹ Recall that one out of the 21 visitors recruited had to abort the test early.

- Visitor12: as much as a test can tell you anything. it's ok as long as you take the results with a grain of salt.
- Visitor20: to be honest, I'm not sure if I believe in the results. no fault of yours. but it's just a test, and I'm skeptical of any tests that try to tell you about your personality. I know this is a little more scientific, but it's still just a 5 minute test.
- They wanted more information about how the test works (3 visitors)
 - Visitor7: I'm not sure. I didn't read through all the information on this page [result page], so I don't know how they get the results. I would have to read more about it to tell.
 - Visitor14: I don't know. how does it work? how does it come up with the result? I'd be interested to find out why. [believable?] depends on how the results are determined
 - Visitor16: not sure. it's a little confusing how they would show your words from the same category repeatedly in a row. not sure if that just tricks your brain or what. it's interesting. [believable?] don't know. I guess.
 - They didn't think they took the test 'right' (2 visitors)
 - Visitor13: I'm very slow, so I don't know how believable my results can be. mine was inconclusive anyway
 - Visitor20: I'm sure when they do this in a lab, or when a psychologist uses this, they are a lot more rigorous.
 - They wanted to repeat the test before they believe the results (2 visitors)
 - Visitor2: I mostly.... I don't know. I want to run through it a few more times.:
 - Visitor5: I guess. I don't know. I trust that there isn't a trick to this. taken with a grain of salt, yes. [say more about that?] it's just a test. maybe if I take it a few times and get the same results.
 - They thought there are flaws in the test itself (1 visitor)
 - Visitor3: feel that it was flawed. because you're trying to see if there's an association between science and male. that [science grouped with male] came first, so by the time you put science and female together, I was already used to the other one. I think this test has a confusion of variables, flawed in the setup.
 - Their results were inconclusive (1 visitor)
 - Visitor10: not sure how that applies to me, since mine was inconclusive

Did visitors think it revealed anything about themselves?

Revealing?	Count (out of 20 ²)
yes	11
uncertain	4
no	5

- Nearly half (9 out of 20) of the visitors either did not think or were uncertain that the test revealed anything about themselves. These visitors:
 - Had inconclusive test results (5 visitors)
 - Did not believe their test results (2 visitors)
 - Did not know how to interpret the test results (1 visitor)

- The other visitors thought the test
 - Challenged what they thought about themselves (3 visitors)
 - Visitor1: I always stress the equality of men and women. so the result is disturbing.
 - Visitor17: yes. I didn't think I would have link female and science since I'm not a science person.
 - Visitor2: yeah. that was interesting. I'm a science person myself. there's no reason why female would not be associated with science. I haven't overcome my culture [general culture of male-science] as much as I like to think.
 - Showed that biases are deeply ingrained (3 visitors)
 - Visitor2: yeah. that was interesting. I'm a science person myself. there's no reason why female would not be associated with science. I haven't overcome my culture [general culture of male-science] as much as I like to think.
 - Visitor5: yeah. I try not to be biased, but sometimes these things are deeply ingrained
 - Visitor8: a little bit. it revealed that I haven't overcome my cultural bias
 - Reinforced what they believe about themselves (3 visitors)
 - Visitor11: a little bit. [can you say more?] that my subconscious isn't too far from what I try to be consciously. which makes me happy. [laughs]
 - Visitor19: yeah. I like science, so I think it shows.
 - Visitor6: yeah, I think so. [say more?] I try to be sensitive of any prejudices I might have. especially this topic, since I have daughters and want to encourage them to do whatever they want. and I think my result reflects that.
 - Showed how we are products of our environment (3 visitors)
 - Visitor14: yeah, probably. I grew up with very strong, intelligent women in my family and circle of friends. so I guess it makes sense that I would associate women with science.

² Recall that one out of the 21 visitors recruited had to abort the test early.

Visitor18: yes. growing up in an environment where girls are supposed to play with dolls and grow up to have kids and stay home, I'm not surprise that somewhere in my head I've been told to think only men can be scientists. even if that is not my believe at all. I was very supportive of my daughter pursuing whatever career she wanted. she didn't turn out to be a scientist. but if shed wanted to, I would support her as much as I can

Visitor9: yes. I'm an engineer and most of my colleague and classmates when I was in school were men. so I'm not surprised that I would have this association in my mind.

Were visitors surprised by their results?

Surprising?	Count (out of 20 ³)
yes	9
no	11

- We looked to see if there was any relationship between what visitors' thought the test revealed and if they found the results surprising. The following tallies the number of visitors who were surprised by their results according to what they thought the test revealed

What the test revealed	Count of visitors who were surprised by results
Nothing – test was not believable	0
Nothing – test was inconclusive	2 out of 5 (surprised that the test was inconclusive)
Nothing – needed more information	0 out of 1
Biases are deeply ingrained	1 out of 3
Challenged belief about self	3 out of 3
We're products of our environment	2 out of 3
Reinforced belief about self	1 out of 3 (surprised by the degree)

How did visitors interpret someone else's results?

As part of the interview we also asked visitors to interpret a staff member's IAT result. This question was designed to allow visitors who may be reluctant to talk about their own results, to nonetheless interpret and comment on the significance of the IAT.

We found that

- Close to half of the visitors (10 out of 21) did not think they could say anything more about the person by looking at their IAT results beyond the results themselves or how that result

³ Recall that one out of the 21 visitors recruited had to abort the test early.

compare to others. Some of these visitors explained that there is very little that anyone can say about a person based on a summary from a test. For example,

Visitor4: I didn't thi9nk you can say that much about a person based on a 10min text, but it's an interesting idea

Visitor20: you can't really generalize about a person base on this test result. it wouldn't be fair

- The other visitors made the following inferences about the staff member:
 - S/he is a product of her/his environment (4 visitors)
 - Visitor6: someone who isn't used to seeing or connecting woman to science perhaps
 - Visitor8: this person probably grew up seeing mostly men in science, like Einstein and guys in lab coats.
 - Visitor9: someone like me who is accustomed to seeing men in scientific fields
 - Visitor11: assumedly that this person took the test honestly, I guess this person grew up seeing more men associated with science, on TV or real life.
 - Visitor18: someone like myself I suppose, who grew up in a paternal society.
 - The person is male/ female (4 visitors)
 - Visitor17: probably not a science person and probably a man
 - Visitor15: this person thinks guys are better in science
 - Visitor19: probably a woman who doesn't like science. or a guy who doesn't like science.... no, the other way around. it would be a guy who likes science.
 - Visitor1: seeing the result, I say it's female, 40 or older.
 - The person (dis)likes science (2 visitors)
 - Visitor17: probably not a science person and probably a man
 - Visitor19: probably a woman who doesn't like science. or a guy who doesn't like science.... no, the other way around. it would be a guy who likes science.

What questions did visitors have about the test and its results?

We asked visitors if they had any questions about the test and its results. Their questions fall under these broad categories

- How does the test work
 - Visitor3: it's a bit flawed. It's more leading toward linking male to science
 - Visitor4: just how they get the result from you responses
 - Visitor6: how does it work?
 - Visitor7: yes, how did they determine the result of your tests.
 - Visitor11: whether there is anything in the test that accounts for people who might try to cheat the test.
 - Visitor13: do you get the same results if you take the test again?

Visitor14: how the results were figured out. how does it work?

Visitor20: I would be interested to see how they come up with the results and how this is used in research.

Visitor21: yeah, like how accurate is the test. how does it work? how do you know if it's really implicit association or if someone is just messing up by accidents.

- How to interpret the final result

Visitor3: the result is very confusing.

Visitor17: yes. I notice the numbers here are different [meaning the % on our prop vs. the % on the screen. I explained that they update the web % base on people's test results. ours is a little older]

- How will the data be used

Visitor12: how are the results used?

Visitor16: how does it work? how the results come about?

Visitor18: how many people do you ask to take this test for the experiment. what you are going to do with the results.

Visitor20: I would be interested to see how they come up with the results and how this is used in research.

- Where to take the test (online)

Visitor10: just how I can retake the test

Visitor15: I want to know my result. how can I take this again?

- How scientific

Visitor4: how scientific this is

What other IATs would visitors want to try?

We described other available IATs and asked visitors which ones they would be interested in trying at the Exploratorium. The following gives the tally for each choice.

IAT	Count (out of 21)
Age ('Young - Old') . This test often indicates that Americans have automatic preference for young over old.	13
Race ('Black - White') . This test indicates that most Americans have an automatic preference for white over black.	14
Arab-Muslim ('Arab Muslim - Other People') . This test frequently reveals an automatic preference for other people compared to Arab-Muslims.	13
Weight ('Fat - Thin') . This test often reveals an automatic preference for thin people relative to fat people.	15
Skin-tone ('Light Skin - Dark Skin') . This test often reveals an automatic preference for light-skin relative to dark-skin.	12

There was no strong preference for one over the others.

All but one visitor said that they would be interested in trying at least one other IAT. The one exception did not give much credence to the test as a way of revealing anything about a person.

SUMMARY AND DISCUSSION

The Mind Team had two key concerns about using the Implicit Association Test with floor visitors. First, the IAT can introduce potentially sensitive issues about hidden biases. In fact, the team discussed how 'edgy' they wanted the test before deciding to use the Gender IAT with visitors, deciding to stay away from the more racially charged tests and instead selecting one that we felt would have personal meaning and that touches on our perceptions about science. We wanted visitors to feel that their experience taking the IAT revealed something about the way they think and feel. At the same time, we did not want the experience to be too upsetting to visitors.

Second, the IAT requires a test taker to individually focus on the test for a 5 minute period without distractions. As such, it represents a large class of activities used in experimental psychology to reveal patterns in human thinking. Using these activities on the floor with visitors to reveal aspects of their own cognition, however, may not be straightforward. Because most visitors come to the Exploratorium as part of a group, we were concerned that the asocial nature of the IAT would dissuade or disallow visitors from taking the IAT. Furthermore, the Exploratorium floor is typically noisy and chaotic which can make it difficult for anyone to concentrate for a long period of time.

This study is a first attempt at looking at visitors' reactions to an Implicit Association Test, with a focus on the above 2 issues of concern. In summary, we found that:

- With one exception, the visitors recruited were willing to sit through the entire test. (The computer crashed for the one visitor who did not complete the IAT.) This is despite the fact that all the visitors were told that they could quit the test at any time for any reason and that we were particularly interested in knowing if visitors are willing to spend the time on this kind of activity.
- However, over 1/3 of the (8/21) visitors claimed they would feel uncomfortable if someone were to watch them while taking the IAT, with 6 out of 21 visitors claiming that other people would distract them from the task at hand.
- Furthermore, over 1/3 of the (8/21) visitors felt uncomfortable at some point with the test. Their discomfort stemmed from initial confusion about what to do, feeling self-conscious about making a mistake, and to a lesser degree, feeling like a 'guinea pig' and apprehension about what their results may indicate.
- 60% (12/20) visitors claimed that they did not believe or were uncertain that they believe the test results. These visitors explained that a test, especially a short test, cannot tell anyone very much about a person, that they wanted more information before they would believe the results, that they didn't take the test 'right', that they wanted to repeat the test before believing the results, that their test results were inconclusive, or that the test design is fundamentally flawed.
- Yet, a majority (55%, 11/20) thought that the experience revealed something about people. That is, it challenged/ reinforced what they believed about themselves and it showed how biases can be deeply ingrained and how we are products of our environment.
- At the end of the experience, most visitors had questions about the IAT and wanted to try another test, indicating some level of curiosity and interest.

In summary, few visitors indicated any sensitivity to the test results. Most of the discomfort visitors felt was with *taking* the test, particularly in the museum environment, which is social and oftentimes noisy. Some of the potential sensitivity in interpreting the test results may have been mitigated by the fact that a majority of the visitors did not find the results completely believable. Nonetheless, many visitors remarked on their own beliefs, their actions, and the influence of environment on their thinking and asked questions about the test itself. These findings suggest that the *IAT is a promising activity to promote visitor reflection, but our key challenge remains adapting the activity to the museum setting, which is not conducive to the solitary, focused task of taking an IAT.*

This study has two key limitations: First, only adults who were willing to spend at least 5 minutes apart from the group were interviewed. We, therefore, have no indication how or whether this activity will work for the 'typical' family groups that come to the Exploratorium. That is, would this work as a stand-alone exhibit to attract visitors, particularly if they need to separate from their group and focus on a task for a 'long' time? Second, despite efforts to make visitors comfortable in aborting the activity, visitors oftentimes want to please the evaluator and will stay longer during a cued interview than they would if they happened upon an exhibit. Although everyone we interviewed agreed to take the test and stayed until the end, we are not sure if this

would be the case for a stand-alone situation. Future evaluation studies will attempt to capture more naturalistic behavior with a standalone exhibit on the floor.

ACKNOWLEDGEMENTS

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APPENDIX A

Instructions to Visitors

Excuse me, my name is XXX. and I work here.

We're trying out a new activity for an exhibit. Would you be willing to give us some feedback on it? This should take about 15 minutes. Is that okay?

Can I first describe the activity to you?

The activity is basically a sorting activity. It's done on a computer. So, you'll see 2 categories, one here [point right on prop A (Figure 1)] and one here [point left on prop A (Figure 1)]. And, you'll sort words into the categories. These are the words (prop B, Figure 2).

Figure 1. Prop A



Figure 2. Prop B

Category	Word
Male	Man, Boy, Father, Male, Grandpa, Husband, Son, Uncle
Female	Girl, Female, Aunt, Daughter, Wife, Woman, Mother, Grandma
Science	Physics, Chemistry, Neuroscience, Biochemistry, Astronomy, Engineering
Liberal Arts	Philosophy, Humanities, Arts, Latin, English, Music, History

Once the activity starts, you'll see a word pop up in the center [here]. Simply press "i" on the keyboard if it belongs with this category, and "e" on the keyboard if it belongs with this category. It's best to keep your right index finger on the "i" key and your left index finger on the "e" key. If the computer thinks you've made a mistake, a red "X" will pop up. Just press the other key when that happens. I'm going to show you the categories and words you'll be sorting on the computer. We would like you to sort the words as quickly as possible but as accurately as possible. Because you'll be going fast, you'll likely make a few mistakes. That's okay.

This activity is actually a method some psychologists are using to help reveal what they call implicit associations. So, the idea is that some ideas are more strongly tied to each other than others in our minds. What this activity does is try to figure out what ideas are more strongly associated than other ideas. It does this by timing how quickly a person can sort words into categories. So, after you do the sorting activity, the computer will analyze your data and show you the results.

Does this sound like something you want to try now?

[If No] May I ask why you'd prefer to not to try the activity?

[If Yes] Great. Now, before we begin, I want to let you know that we are not recording your results on the computer. No one at the Exploratorium will know your results. I will be right here, but I will not be looking at you or at the computer screen while you're doing this activity.

Also, I don't want you to feel that you need to finish this activity. One of the things we're trying to find out is how long people are willing to sit at a computer and do something like this. So, whenever you feel like you've had enough or you want to stop for whatever reason, just tell me. However, if you stop before you finish all the sorting, the computer will not be able to give you any results.

Any questions before we begin? Okay

APPENDIX B

Interview Questions

1. Did you finish the activity? So, if you've completed them all, you would have seen a screen that looks something like this [Prop C, Figure 3].
 YES NO
2. Did you feel uncomfortable or awkward at any point during that activity? [Say more]
3. How comfortable do you think you would be taking the test with a friend or family watching you?
4. What about talking about the results with your friend or family?
5. How comfortable do you think you would be having your results included in a database. There would be no way of identifying your results. So, it would be anonymous.
6. Let's talk about the results. Now, I don't need to know your results specifically. But, I would like to ask about how you felt about the results.
 - a. Were the results believable? Can you say a little bit about why / why not?
 - b. Did you feel that it revealed something about you?
 - c. where you surprised by the results?
7. These are NOT your results [show Prop D, Figure 4]. These are the results from a staff member here at the Exploratorium. What can you say, if anything, about this person? Can you tell me a little about why you think that?
8. Are there any questions you have about this activity and what it means?
9. Here are some other categories we are thinking of. Which ones would you try at an exhibit at the Exploratorium? [Prop E, Figure 5]

Other Implicit Association Tests:	(Check yes)
Age ('Young - Old').	
Race ('Black - White').	
Arab-Muslim ('Arab Muslim - Other People').	
Weight ('Fat - Thin').	
Skin-tone ('Light Skin - Dark Skin').	

Figure 3. Prop C

You have completed the Gender-Science IAT.

The line immediately below summarizes the results of your task performance.

Summary of your results

If your result was described as 'inconclusive', [click here](#).

Your result, reported above, is already corrected for the order in which you took the parts of the IAT.

The interpretation shown above is described as 'automatic association between Science and Male' if you responded faster when *Science* and *Male* words were classified with the same key as opposed to *Liberal Arts* and *Male* items. It is marked 'automatic association between Liberal Arts and Male' if you were faster when giving the same response to *Liberal Arts* and *Male* items. Depending on the magnitude of your result, your automatic preference may be described as 'slight', 'moderate', 'strong', or 'little to no preference'.

If you have unanswered questions about the task, please review the [frequently asked questions](#) about this type of research. Any followup questions can be directed to the researchers by email at that page.

Compare your result above with the results for other website visitors summarized in the table below.

This table does NOT describe your data. This data reflects the results of visitors to the website. The percentages reflect the proportion of people who showed that level of bias.

Interpretation	Percent of Total
Strong automatic association between male and science	19%
Moderate automatic association between male and science	27%
Slight automatic association between male and science	19%
Little to no automatic gender association with science or liberal arts	23%
Slight automatic association between female and science	7%
Moderate automatic association between female and science	4%
Strong automatic association between female and science	1%

Figure 4. Prop D

You have completed the Gender-Science IAT.

The line immediately below summarizes the results of your task performance.

Your data suggest a moderate association between science and Male relative to Female

If your result was described as 'inconclusive', [click here](#).

Your result, reported above, is already corrected for the order in which you took the parts of the IAT.

The interpretation shown above is described as 'automatic association between Science and Male' if you responded faster when *Science* and *Male* words were classified with the same key as opposed to *Liberal Arts* and *Male* items. It is marked 'automatic association between Liberal Arts and Male' if you were faster when giving the same response to *Liberal Arts* and *Male* items. Depending on the magnitude of your result, your automatic preference may be described as 'slight', 'moderate', 'strong', or 'little to no preference'.

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Slight automatic association between female and science	7%
Moderate automatic association between female and science	4%
Strong automatic association between female and science	1%

Figure 5. Prop E

Other Implicit Association Tests:	Categories and Words You would these sort words into these categories...
Age ('Young - Old'). This test often indicates that Americans have automatic preference for young over old.	Good Joy, Love, Peace, Wonderful, Happy Bad Terrible, Horrible, Nasty, Evil, Awful Old faces of Old people Young faces of Young people
Race ('Black - White'). This test indicates that most Americans have an automatic preference for white over black.	Good Joy, Love, Peace, Wonderful, Happy Bad Terrible, Horrible, Nasty, Evil, Awful Black Black faces White White faces
Arab-Muslim ('Arab Muslim - Other People'). This test frequently reveals an automatic preference for other people compared to Arab-Muslims.	Good Joy, Love, Peace, Wonderful, Happy Bad Terrible, Horrible, Nasty, Evil, Awful Arab Muslim Akbar, Ashraf, Habib, Hakim, Karim Other People Benoit, Philippe, Maarten, Takuya, Matthais
Weight ('Fat - Thin'). This test often reveals an automatic preference for thin people relative to fat people.	Good Joy, Love, Peace, Wonderful, Happy Bad Terrible, Horrible, Nasty, Evil, Awful Fat People Images of Fat People Thin People Images of Thin People
Skin-tone ('Light Skin - Dark Skin'). This test often reveals an automatic preference for light-skin relative to dark-skin.	Good Joy, Love, Peace, Wonderful, Happy Bad Terrible, Horrible, Nasty, Evil, Awful Dark Skinned People Images of Dark Skinned People Light Skinned People Images of Light Skinned People