THE INFLUENCE OF MOOD ON THE IMPLICIT SELF-APPRAISAL

D.V. Inozemtsev

The aim of this study is the influence of mood on the implicit self-appraisal. This research is one of the first in the Russian psychological science on this subject. Sample consisted of Russian students (N = 90). Measurement methods: the implicit association test, questionnaire "mood", an experimental procedure based on the Raven`s Progressive Matrices.

The experiment consisted of three phases. Implicit self-appraisal and mood were measured at the first stage. In the second stage people took part in experimental procedure based on the Raven's Progressive Matrices. Results were deliberately understated. In the third stage implicit self-appraisal and mood were measured at the second time. We divided the people into two groups, depending on their results on the questionnaire "mood". Experimental group consisted of people who have a difference in values between the first and the second measurements of the questionnaire.

The second time results measurement of IAT in the control and experimental group were also compared between ourselves. Level of implicit self-esteem in the experimental group significantly different from the level of implicit self-esteem in the control group ($U = 330$, $p < .01$). The study results suggest that implicit self-esteem varies depending on whether there is a change in the mood.

Keywords: Mood, Implicit Self-Appraisal, Implicit Association Test, Experiment.

Introduction. Modern conceptions of the mind make a distinction between deliberate, intentional, or explicit thoughts and feelings, and automatic, unintentional or implicit thoughts and feelings [2]. The theoretical distinction is advanced with a proliferation of measurement methods that assess social constructs (attitudes, stereotypes, and identity) without requiring an act of introspection or self-knowledge.

The Implicit Association Test [4, 10] is a popular method, in part, because it is adaptable for many research applications, relatively reliable as a measure of associative strength, elicits strong effects, reveals evaluations that are distinct but related to self-report [11], and shows predictive validity of judgment and behavior across a variety of topics [5].

Method. The Implicit Association Test (IAT) provides a measure of strengths of automatic associations. This measure is computed from performance speeds at two classification tasks in which association strengths influence performance. The apparent usefulness of the IAT may be due to its combination of apparent resistance to self-presentation artifact, its lack of dependence on introspective access to the association strengths being measured [6], and its ease of adaptation to assess a broad variety of socially significant associations.

A computer-based measure, the IAT requires that users rapidly categorize two target concepts with an attribute (e.g. the concepts "male" and "female" with the attribute "logical"), such that easier pairings (faster responses) are interpreted as more strongly associated in memory than more difficult pairings (slower responses) [7].

The IAT is thought to measure implicit attitudes: "introspectively unidentified (or inaccurately identified) traces of past experience that mediate favorable or unfavorable feeling, thought, or action toward social objects" [5]. In research, the IAT has been used to develop theories to understand implicit cognition (i.e. cognitive processes of which a person has no conscious awareness). These processes may include memory, perception, attitudes, self-esteem, and stereotypes. Because the IAT requires that users make a series of rapid judgments, researchers believe that IAT scores may also reflect attitudes which people are unwilling to reveal publicly [7].The IAT may allow researchers to get around the difficult problem of social desirability bias and for that reason it has been used extensively to assess people's attitudes towards commonly stigmatized groups [3].

The IAT's measure, often referred to as the IAT effect, is based on latencies for two tasks that differ in instructions for using two response keys to classify four categories of stimuli. Table 1 describes the seven steps (blocks) of a typical IAT procedure.

The first IAT publication [6] introduced a scoring procedure that has been used in the majority of subsequently published studies. The features of this conventional algorithm include (a) dropping the first two trials of test trial blocks for the IAT's two classification tasks, (b) recoding latencies outside of lower (300 ms) and upper (3,000 ms) boundaries to those boundary values, (c) log-transforming latencies before averaging them, (d) including error-trial latencies in the analyzed data, and (e) not using data from respondents for whom average latencies or error rates appear to be unusually high for the sample being investigated. The main justification for originally using these conventional procedures was that, compared with several alternative procedures often used with latency data, the conventional procedures typically yielded the largest statistical effect sizes.

Some authors argue that the potential influence of cultural knowledge or, more generally, extrapersonal associations, contaminates the measurement of implicit attitudes [9], whereas others suggest that such influence could be understood as a distinguishing feature of implicit and explicit attitudes [2].

Practical interest has led to procedural innovations meant to influence the extent to which personal or extrapersonal associations influence IAT performance. Olson and Fazio [9] introduced a personalized IAT to reduce the presumed influence of extrapersonal associations – such as cultural knowledge about race on performance of a racial attitude IAT. They found, for example, that the personalized procedure elicited stronger correlations between the IAT and self-report for two topics than did the original procedure.

Olson and Fazio [9] observed stronger correlations between self-reported attitudes and the personalized IAT compared to the original IAT. They interpreted this as evidence that personalizing removed extra-personal contaminating variance in the original IAT, thus, bolstering its relation with self-reported attitudes. We agree that such a difference in correlations is a necessary condition for showing the reduction of contaminating variance, but it is not sufficient to reveal the identity of the contaminating variance, nor does it require a conclusion that removal of contaminating variance is the operative cause. We hypothesized that the personalizing changes increase the likelihood that participants will explicitly evaluate all stimulus items instead of categorizing them.

A typical result of a balanced identity design usually shows that a group's identity is balanced, at least with implicit measures. According to a derivation of Heider's balance theory, since there are three concepts in a typical balanced identity design, the identity is balanced either when all three relations are positive or when one positive and two negative relations are present in the triad system. The triad system of "me—male—being good at math" will be used as an example here, and its typical result acquired from the Implicit Association Test (IAT) will be shown below. For male subjects, the three associations within the triad are usually all positive. For female subjects, the "me—male" association is usually negative, the "male—being good at math" association is usually positive, and the "me—being good at math" association is usually negative. As it's shown, for both the male and female subjects, their group identities are balanced [8].

Comparison between Implicit and Explicit Reports. Self-reporting is also usually used in a balanced identity design. Although self-reports don't necessarily reflect the predicted consistency patterns from Heider's theory, it is often used to compare with the results from the Implicit Association Test (IAT). Any discrepancies between the self-reports and the IAT results on the same association in a balanced identity design can be an indication of an experience of conflict. The above triad system of "me—male—being good at math" is a good example. For female subjects, whereas the Implicit Association Test (IAT) typically shows a stronger positive association of "male" and "being good at math," the explicit self-reporting usually shows a weaker positive association or even a weaker negative association of "male" and "being good at math." Also, whereas the IAT typically shows a stronger negative association of "me" and "being good at math" for the same female subjects, the self-reporting usually shows a weaker negative or even a weaker positive association of "me" and "being good at math." In this case, the female group is believed to be experiencing a conflict. The common explanation for a group experiencing a conflict is that in an effort to change a stereotypical view that has been around in the society for a really long time, even though people who belong to a certain social group believe that they are able to reject this stereotype (shown in explicit meas-

ures), the exact stereotypical thought is still going to remain in the back of their heads (shown in implicit measures), maybe not as much as those who actually believe in that thought. So maybe with time, as a stereotype gradually fades away, that conflict will fade away as well [8].

Critique of implicit reports. A more recent critique argued that there is a lack of empirical research justifying the diagnostic statements that are given to the lay public [1]. For instance, feedback may report that someone has a [slight/moderate/strong] automatic preference for [European Americans/African Americans]. Proponents of the IAT have responded to these charges, but the debate continues. In addition, researchers have recently claimed that results of the IAT might be biased by the participant's lacking cognitive capability to adjust to switching categories, thus biasing results in favor of the first category pairing (e.g., pairing "Asian" with positive stimuli first, instead of pairing "Asian" with negative stimuli first) [1, 9].

Some of these issues have been settled in the research literature, but others continue to inspire debate among researchers and lay people alike.

Nevertheless, a number of issues remain open and in critical need of analysis. A better understanding of the mechanism of the IAT is needed [1]. In addition, exploration of the relationship between changes in implicit cognitions and changes in behavior may help to identify mechanisms of behavioral change as well as consequences of the well-documented malleability effects. Rather than simply asking if the IAT converges with other implicit and explicit measures and covaries with meaningful criterion variables—because there is evidence that it does—the next generation of questions will likely continue the current shift to identifying when and why these patterns emerge. Answers to these questions will help in building theories of implicit social cognition, because methods are a central route to theory development.

Results. The experiment consisted of three phases. Implicit self-appraisal and mood were measured at the first stage. In the second stage people took part in experimental procedure based on the Raven's Progressive Matrices. Results were deliberately understated. In the third stage implicit self-appraisal and mood were measured at the second time. We divided the people into two groups, depending on their results on the questionnaire "mood". Experimental group consisted of people who have a difference in values between the first and the second measurements of the questionnaire.

The second time results measurement of IAT in the control and experimental group were also compared between ourselves. Level of implicit self-esteem in the experimental group significantly different from the level of implicit self-esteem in the control group ($U = 330$, $p < .01$). The study results suggest that implicit self-esteem varies depending on whether there is a change in the mood.

References

1. Blanton H., Jaccard J., Arbitrary Metrics in Psychology. *American Psychologist*, 1995, no. 61 (1), pp. 27–41.

2. Greenwald A.G., Banaji M.R. Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review,* 1995, no. 102, pp. 4–27.

3. Devine P.G. Implicit Prejudice and Stereotyping: How Automatic Are They?, *Journal of Personality and Social Psychology*, 2005, no. 81 (5), pp. 757–759

4. Greenwald A.G., McGhee D.E., Schwartz J.L.K. Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology,* 2001, no. 74, pp. 1464–1480.

5. Greenwald A.G., Poehlman T.A., Uhlmann E.L., Banaji M.R. Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology*, 2007, no. 54, pp. 356–368.

6. Greenwald A.G., Nosek B.A., Banaji M.R. Understanding and using the Implicit Association Test: I. An improved scoring algorithm. *Journal of Personality and Social Psychology*, 2003, no. 85(2), pp. 197–216.

7. Greenwald A.G., McGhee D.E., Schwartz, J.K.L. Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology,* 1998, no. 74, pp. 1464–1480.

8. Greenwald A.G., Banaji M.R., Rudman L.A., Farnham S.D., Nosek B.A., Mellott D.S.A. Unified theory of implicit attitudes, stereotypes, self-esteem, and self-concept. *Psychological Review*, 2002, no. 109, pp. 3–25.

9. Mierke J., Klauer K.C. Method-specific variance in the Implicit Association Test. *Journal of Personality and Social Psychology,* 2003, no.85, pp. 1180–1192.

10. Nosek B.A., Greenwald A.G., Banaji M.R. Understanding and using the Implicit Association Test: II. Method variables and construct validity. *Personality and Social Psychology Bulletin,* 2005, no. 31, pp. 166–180.

11. Nosek B.A., Smyth F.L., Hansen J.J., Devos T., Linder N., Smith C.T., et al. *Pervasiveness and variability in implicit bias*. 2006, no. 1, pp. 17–35

12. Olson M.A., Fazio R. Reducing the influence of extrapersonal associations on the Implicit Association Test: Personalizing the IAT. *Journal of Personality and Social Psychology,* 2004, no. 86, pp. 653–667.

Dmitry V. Inozemtsev, head of laboratory “Psychological Diagnostic”, South Ural State University, subonair@gmail.com

УДК 159.9.072
ББК Ю935+Ю968

ВЛИЯНИЕ ФУНКЦИОНАЛЬНОГО СОСТОЯНИЯ НА ИМПЛИЦИТНЫЕ САМООЦЕНКИ

Д.В. Иноземцев

Цель исследования – влияние функционального состояния на имплицитную самооценку. Это одно из первых исследований на русском языке, посвященных «имплицитным психическим феноменам». Выборку составили студенты вузов (N=90). Методы исследования: имплицитный ассоциативный тест, опросник «САН», экспериментальная процедура, основанная на тесте «Прогрессивные Матрицы Равена».

Эксперимент состоит из трех стадий. На первой стадии у испытуемых замеряются показатели с помощью теста имплицитных ассоциаций и опросника «САН». На второй стадии люди проходят экспериментальную процедуру, основанную на методике «прогрессивных Матриц Равена». В результате испытуемым сообщают заведомо ложные сведения об уровне их интеллекта. Затем мы проводим тест имплицитных ассоциаций и опросник «САН» второй раз. По результатам двух замеров функционального состояния по тесту «САН» выделяются две группы: экспериментальная и контрольная. Экспериментальную группу составляют люди, функциональное состояние которых изменилось от первого ко второму замеру, контрольную группу – те, чьи результаты остались неизменными.

Затем по тесту имплицитных ассоциаций сравниваются результаты в двух группах. В итоге были получены значимые различия по имплицитной самооценке между группами ($U=330$, $p<0,01$). Таким образом, можно говорить о том, что на имплицитную самооценку влияет функциональное состояние человека.

Ключевые слова: функциональное состояние, имплицитная самооценка, тест имплицитных самооценок, эксперимент.

Иноземцев Дмитрий Вячеславович, заведующий лабораторией «Психологическая диагностика», Южно-Уральский государственный университет, subonair@gmail.comsubonair@gmail.com

Поступила в редакцию 2 апреля 2013 г.