



Soliya Impact Assessment Tools

Soliya has had a research partnership with the **Saxelab Social Cognitive Neuroscience Laboratory at MIT** and more recently with the **Annenberg School of Communication at University of Pennsylvania**.

The focus of the research is to identify and establish evaluation tools to measure attitude changes and skill-development that young people achieve through **Soliya's Connect Program**.

Through testing among Soliya's Connect Program participants and matched control groups, results indicate that virtual exchange programs can increase participants' empathy for other cultures and perspectives, develop their willingness to engage constructively with peers of diverse backgrounds and views, and provide participants with the experience of being heard and respected.

Both an overview of several of the evaluation instruments and a summary of some existing findings are included below. We hope that by adapting these tools and methodologies for use within your own virtual exchange programs, you will not only illuminate the impact of your own work but also contribute to the body of research on outcomes that can be achieved through this growing field.

The Tools

Self-Other Overlap

This is an interactive visual tool that measures the degree to which an individual feels a sense of commonality with another group. Research indicates that increased self-other overlap correlates with compassion and predicts pro-social behavior, i.e. increased willingness to forgo personal rewards to alleviate suffering of the other (Batson, Turk, Shaw & Klein, '95), and is associated with greater trust and cooperative exchange (Zak & Knack, '01).

Inter-group Affect

This measure consists of a 'feeling thermometer' that is widely used to assess intergroup negativity (Choma, Hodson, & Costello, 2012; S. Paolini, M. Hewstone, E. Cairns, & A. Voci, 2004; Turner & West, 2012) and is employed to measure affect towards the 'other'.

Meta-perceptions

Responses to another group can be heavily dependent upon how you think that group perceives you (Vorauer and Sasaki, 2009). This has been demonstrated to be particularly important for the perception that the other group listens to and respects your views: research shows that 'feeling heard' facilitates positive change in intergroup behaviors, even in groups involved in direct protracted conflict (e.g. Israelis and Palestinians) (Bruneau and Saxe, 2012; Sagy et al., 2002). The Peace and Conflict Neuroscience Lab measures meta-perceptions that the other group 'listens to' and 'respects' your own group.

Meta-dehumanization

Another specific meta-perception that we have found to be particularly damaging to intergroup relations is the view that the other group thinks of your group as less 'evolved' than their own (Kteily, Hodson and Bruneau, 2016). For example, we have shown that the degree to which Americans feel dehumanized by Iranians predicts their resistance to the Iran nuclear accord and their willingness to engage in open warfare with Iran (Kteily, Hodson and Bruneau, 2016); and for Muslim Americans, feeling dehumanized by Donald Trump and Americans in general predicts support for violent versus non-violent collective action, and unwillingness to report suspicious activity in their communities to the FBI (Kteily and Bruneau, in press).

Challenging Norms

Participants are asked to report their agreement with statements that present a range of perspectives toward the other identity group. This measure enables Saxelab to assess whether participants going through the virtual exchange program are able to challenge norms that perpetuate intergroup conflict. Norms of intergroup conflict (e.g. belief in the 'Clash of Civilizations' hypothesis) have been shown to help drive violent intergroup conflict (e.g. in Rwanda), so diminishing these norms is particularly desirable to help buffer against future conflict (Paluck, 2009).

Dr. Emile Bruneau and Soliya are committed in their partnership to developing novel and innovative approaches to measure changes in attitudes between groups. For example, Dr. Bruneau has partnered with the Collective Intelligence Group at MIT to develop cooperative online games that are designed to measure communication and collaboration skills across cultures, and he is currently developing reaction time and eye tracking protocols to examine the effect of virtual contact on empathy for the 'other'. Future work aims to directly examine neural responses to social information, within a subset of program participants, using functional magnetic resonance imaging (fMRI).

Dehumanization

One consequence of feeling dehumanized is the tendency to dehumanizing the other group, in turn. We have used a set of items to determine how much people blatantly dehumanize the other group (Kteily, Bruneau, Waytz and Cotterill, 2015). We have found that this measure predicts real-world outcomes in a number of intergroup contexts: openness to warrantless wiretapping and torture of Arab terror suspects in the U.S. (Kteily, Bruneau, Waytz and Cotterill, 2015), the acceptance among Israelis of Palestinian civilian casualties during the War in Gaza in 2014 (Bruneau and Kteily, in review), the rejection of Muslim refugees in Denmark, Spain, Greece and Hungary (Bruneau, Kteily and Lasse, in review), a bias by Hungarian teachers in placing minority Roma students into low track schools (Bruneau, et al., in review).

Cross-cultural Collaboration Skills Test

MIT Saxelab is partnering with the Collective Intelligence Group at MIT to develop cooperative online games that are designed to measure communication and collaboration skills across cultures. The games are played before and after the virtual exchange program to gauge whether participants become better able to overcome anxieties and performance inhibitors in cross cultural environments.

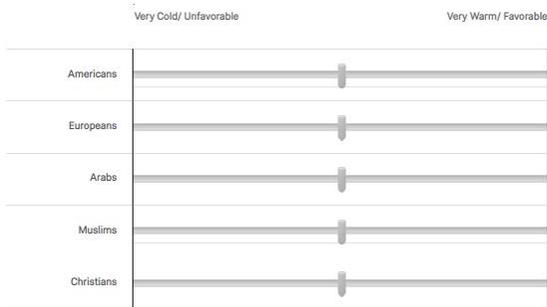
The following are two examples of how these tools have looked when applied to Soliya’s Connect Program.

Please choose the picture that most closely represents YOUR relationship with each of the groups below.

	A	B	C	D	E	F	G
Americans	<input type="radio"/>						
Europeans	<input type="radio"/>						
Arabs	<input type="radio"/>						
Muslims	<input type="radio"/>						
Christians	<input type="radio"/>						

A slider asking students to compare their personal identities to those of various identity groups, including their own. In this case American students are asked to represent their own relationships to different groups, including to Americans.

Indicate how "Cold" or "Warm" you feel towards each group:



The Feeling thermometer measure how warm or cold one feels towards different groups.

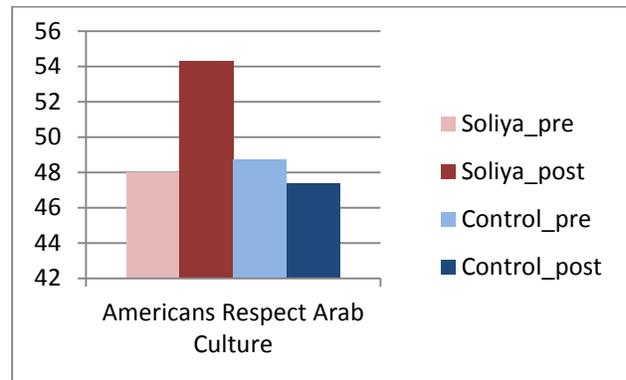
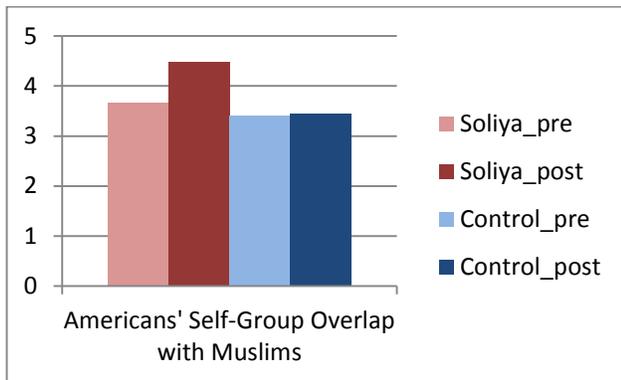
The Results

In a recent manuscript, researcher Dr. Emile Bruneau argued that, “Intergroup contact has the demonstrated potential to stem the tide of intergroup negativity. However, modern socio-political conflicts that span great physical distances make direct contact difficult, costly and rare. Recently, ‘virtual exchange’ programs have attempted to provide the benefits of contact to a far larger (and broader) audience, at a fraction of the cost. Soliya is one such program.”

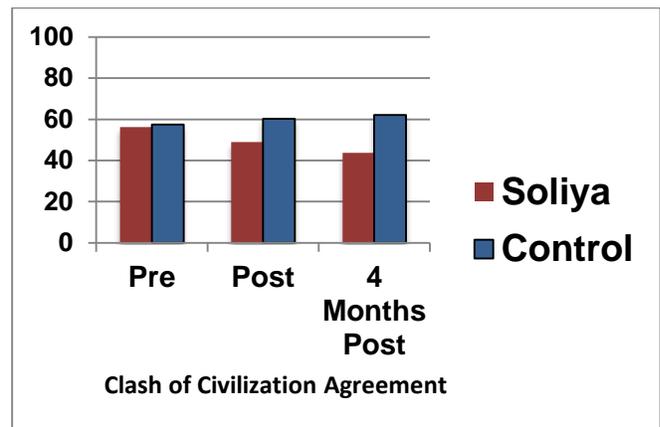
Over the Spring 2013 semester, the MIT Sixelab evaluated the effect of Soliya on program participants, relative to a control group – all university students in either “The West” or in Arab and/or predominantly Muslim societies. In the middle of the semester, the Boston marathon bombings occurred, which were committed by two Muslim brothers. This tragic event allowed for investigation of the effect of a virtual contact program in the context of an act of violence that could be construed as ‘intergroup’.

For nearly all measures, American Soliya participants experienced increased positivity towards Muslims and Islam, or were insulated from increased negativity exhibited by the control group, despite the bombings by two Muslim individuals.

The following three charts show American Soliya participants' changing attitudes towards Arabs and/or Muslims – Despite Boston Marathon Bombings



Four months after the program, the large gap between Soliya participants and all controls persisted, particularly around the measure of whether participants agreed with Samuel Huntington's contentious "Clash of Civilizations" argument:



The results provide evidence for the efficacy of "virtual contact", even in the face of intergroup aggression.

According to Dr. Bruneau:

"Virtual contact is not only an alternative to direct contact; virtual interactions could be used to enhance or maintain the effects of direct contact before or after the initial experience. Soliya's Connect Program illustrates 'virtual contact' as a new effective type of intervention that could dramatically expand the scope and extend the reach of intergroup contact, and achieve broad change in intergroup perceptions and attitudes."



Dr. Emile Bruneau

Dr. Emile Bruneau is research faculty in the Annenberg School for Communication at the University of Pennsylvania. Prior to his formal training in neuroscience and cognitive neuroscience, Dr. Bruneau worked, traveled and lived in a number of conflict regions: South Africa during the transition from Apartheid to Democracy, Sri Lanka during one of the largest Tamil Tiger strikes in that nation's history, Ireland during "The Troubles", Israel/Palestine around the Second Intifada. Dr. Bruneau is now working to bring the tools of science to bear on the problem of intergroup conflict by (1) building methods to better characterize the (often unconscious) cognitive biases that drive conflict (e.g. through functional neuroimaging (fMRI)), and (2) critically evaluating efforts aimed at transcending these biases. His work has focused on perceptions of Arabs, Muslims and Mexican immigrants in the U.S., Roma and Muslim refugee perceptions in Europe, and the Israeli-Palestinian conflict. Dr. Bruneau is the recipient of the 2015 Ed Cairns Early Career Award in Peace Psychology.