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Changing Attitudes, Changing Behaviors. Conceptual Change as a Model for Teaching Freedom of Religion or Belief*

- Children need a framework to understand freedom of religion or belief (FORB) as a fundamental human right to prevent intolerance and radicalization.
- Currently there are limited educational programs especially on this freedom.
- Conceptual change theory and strategies have not been widely used in teaching about the social sciences, and not at all in teaching about human rights.
- Teachers showed positive conceptual change in knowledge and ideologies, increased empathy for others whose beliefs were different than their own, and were able to implement the content of the training within their classrooms.

Purpose: The purpose is to demonstrate that conceptual change theory and strategies can be applied to areas of the social science, such as human rights education on FORB.

Design/methodology/approach: The theoretical scope of this paper is conceptual change theory and is intended to introduce the theory and practice of conceptual change in teaching about FORB in social sciences and how it was used in training teachers.

Findings: Conceptual change theory and strategies were found to be effective in teaching about FORB.

Practical implications: This study introduces the use of conceptual change theory and strategies in teaching about human rights.

Keywords:
Conceptual change, dissonance, freedom of religion or belief, human rights, violent extremism, tolerance, empathy

1 Introduction

Religion-related conflict is prevalent throughout many areas of the world, and is particularly acute in the Middle East and North Africa (MENA) region. However, it has most recently exhibited itself through violent extremist acts in countries such as France, Belgium, Great Britain and the United States. Across the MENA region, religion-related conflict often disproportionately affects smaller faith communities, dissenters within the majority religion, and faith communities who do not hold political power, threatening religious pluralism and freedom. When left unchecked, the religious dimension of conflict incites social hostility and can lead to further government restrictions on the freedom of religion or belief that leave countries vulnerable to violent extremism, threatening a nation's security and it's viability as a diverse, stable and democratic society. Recent work, however, has provided substantial evidence of the impact that education and training programs in this area of human rights can have in combatting religious intolerance and violence in the world (Rea-Ramirez, 2017).

With the growing prevalence of religion-related conflict globally, individuals are increasingly confronted with ideas that fuel misconceptions, fears, and intolerance about those who believe differently than them. Such ideas are fed by a lack of knowledge, active engagement with, and empathy for people of different beliefs, and are often reinforced through families, communities, social networks, and political leaders. Children are particularly vulnerable to the ideas of intolerance and hate that lead to violent extremism and need a framework to understand freedom of religion or belief as a fundamental human right in order to become resilient to such ideas and know how to respond to them out of a value for people regardless of what they believe. However, currently there are very limited educational programs for children on the human right to freedom of religion or

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belief, as articulated in Article 18 of the Universal Declaration of Human Rights. Teachers are often unprepared to address sensitive religious issues and resistance often exists within institutions that attempt to teach about religion. Additionally, while there are some limited educational tools to teach about the US Constitution's First Amendment protection for religious liberty, human rights education on the freedom of religion or belief has never been developed fully in both US and international arenas. The first curricula developed in this area of human rights was designed by Tina Ramirez in 2006 and subsequently expanded through the author's collaboration with the Tony Blair Faith Foundation in 2014. At the United Nations, the only curriculum related to this area of human rights focuses on freedom of thought and does not discuss religion or belief. In 2007, the Organization for Security and Cooperation in Europe published the Toledo Guiding Principles on Teaching About Religions and Beliefs in Public Schools, however the Guidelines were not prescriptive. Education in the freedom of religion or belief is particularly needed at this time to make progress addressing intolerance, violent extremism and other related issues. This is especially true for countries in the MENA where children have been particularly affected by violent extremism, both directly and indirectly, and need to learn how to cope with the ideas of intolerance and hate they are confronted with in a way that helps them become resilient to those ideas and able to break the cycle of violence that permeates their region. It is also true for immigrant communities who are unfamiliar with the international norms related to freedom of religion or belief, as many fled from countries with the worst records on this freedom. This often causes dissonance within local communities when attempting to integrate immigrants. Community members are often unable to share their values for freedom appropriately because they have never been taught how.

Recently there has been a move among governments and experts from focusing on countering violent extremism to more preventive strategies that decrease the likelihood of radicalization. In addition, recognition of the need to address children who are reintroduced into communities and schools after experiencing radicalization requires that new measures be taken to address the subsequent problems. The United Nations Global Counter-Terrorism Strategy has stressed that education must be a key strategy in this endeavor (Fink, et al 2013). At the first UNESCO International Conference on the Prevention of Violent Extremism Through Education: Taking Action (2016), leaders stated that, 'it requires addressing controversial issues in a responsible way, in and out of school through formal and non-formal education, and ensuring that education systems, as a whole, are mobilized and equipped to face the challenge.' The keynote speaker at the conference, Soo-Hyang Choi stressed that the single most important thing that education needed to do was to foster inclusion and dignity (2016).

Initiatives for combatting intolerance are urgently needed. Since behaviors of intolerance are often based on deeply held misconceptions and fears of people who hold different beliefs, strategies of conceptual change theory, most often found in science education, were considered as a possible way to introduce freedom of religion or belief (FORB) education into one area of the social sciences. Therefore, a curriculum was introduced by a US based NGO (Hardwired) in the Middle East and North Africa on FORB based conceptual change theory. Analysis of this process and effect has allowed a deeper look at the process of conceptually moving from actions based on inherent beliefs and ideologies to new models of conceptual understanding that may enhance tolerance and empathy toward people of different religions and beliefs, including those with no religion or belief. Hardwired's programs with civil society leaders had previously shown how effectively FORB education helped communities create a framework to address the fears and misconceptions they have of one another, reconcile their beliefs with the new friendships they make, learn how to articulate and defend the rights of others, and mitigate the ideologies that have fomented hatred and intolerance. Hardwired collected and developed a list of the most common misconceptions about the religious other and about the freedom of religion or belief often heard from people in countries throughout Europe, Asia, the Middle East and North Africa. Building on this work with civil society leaders and the collected misconceptions, the curriculum was designed in the hope of bringing about conceptual changes in the way individuals view the rights and freedoms of others and reconcile those ideals to their own beliefs. Conceptual change is not about changing someone's religion or culture; rather, it is meant to help individuals develop new ways of understanding their religion and culture compared to the universal standard of freedom of religion or belief. Levinowitz (2015) stated:

> "You can think a religious belief is wrong without being intolerant. Tolerance is not synonymous with 'believing someone else is right'. It is a virtue that allows you to coexist with people whose way of life is different from your own without throwing a temper tantrum, or a punch."

It was expected that this training program would give teachers and their communities the tools necessary to advance freedom of religion or belief while at the same time combat religious extremism and the intolerance and violence it spreads. The training is meant to transform their perspective about the importance of freedom of religion or belief as a critical linchpin for all other freedoms and the particular challenges facing their communities. It is the eventual goal to foster peaceful, pluralistic communities, communities where minority faith groups and those who chose to have no particular belief, not only co-exist within the larger majority communities but also maintain their own faith identities, values and practices.

Pre-post gains after instruction using the curriculum described in this paper, based on conceptual change, showed a P value equaling 0.0012 for change in

knowledge and attitudes about FORB. By conventional criteria, this difference is considered to be very statistically significant. However, it is not the intent of this paper to provide the detailed methodology or analysis of data, but to present conceptual change theory as a possible vehicle within the social sciences to effect individuals' knowledge, beliefs, and attitudes about FORB through a program to train teachers in religious literacy. It will, therefore, focus on the role conceptual change could play in designing and implementing curriculum that could have a positive effect in the field. Within the social sciences, FORB education is one of the more difficult human rights to teach because of the strong emotional attachment individuals have to deeply embedded beliefs that orient an individual's life to an external purpose or reality. Study of these belief structures and how they may change though use of conceptual change strategies is, therefore, considered a fruitful and sound activity.

2 Conceptual change theory

Conceptual Change refers to the development of new ways of thinking and understanding of concepts, beliefs, and attitudes (Rea-Ramirez, 1998). This occurs through restructuring elements of existing concepts, but goes beyond just revising one's ideologies to actually restructure the underlying concepts used to develop those beliefs. The concept and theory of conceptual change has its basis in Piaget's early work in cognitive development and Khun's work in the history of science (Rea-Ramirez, Clement, Nunez-Oviedo, 2008). Piaget's work was not focused on finding errors in conceptions or deficiencies in reasoning held by children, but rather on how that reasoning came about. In this context, Piaget attempted to "describe their shared meanings and the processes by which they constructed meaning from their experiences (Halldén, Scheja, & Haglund, 2013)". He wanted to find out what the underlying structures were that allowed the development or acceptance of certain conceptions. However, while early work in conceptual change was strongly based on Piaget's cognitive constructivism, it favored what is called the Alternative Framework model. This model did focus on the erroneous nature of conceptions and strategies to unlearn them. Later diSessa and Sherin (1998) proposed viewing conceptual change as "shifting the means of seeing" (p1171), focusing on the processes that take place in forming concepts. Similarly, the "positive pedagogy" suggested by Halldén, Scheja, and Haglund (2013) also changes the focus of conceptual change to the potential for learning. This is accomplished through the exploration of opportunities as the learner interacts with the content and with others (Halldén, Scheja, and Haglund, 2013).

Conceptual change theory has been strongly used in the study of learning in science and math (Champagne, Klopter, & Gunstone, 1983; Clement, 2008; Love, 2015; Nersessian, 2007; Nussbaum & Novick 1982; Posner, Strike, Hewson, & Gertzog, 1982; Smith, 2010; Vosniadou, 2002). It has more recently been extended to other fields such as linguistics, but only weakly in the social sciences (Ranney, & Clark, 2016; Wade, 2012).

According to Lundholm and Davies (2013) use of conceptual change theory in the social sciences has been under-researched when compared to the extensive research in the sciences. It is said to be "an emergent field in which theoretical perspectives are under construction and the evidence base is fragmentary (Lundhol and Davies 2013)". However, there have been several studies conducted primarily in the areas of environmentalism and economics that give insights into the benefits and pitfalls of using conceptual change strategies. We will discuss these in more detail later.

Conceptual change theory posits that individuals come to a learning situation, whether formal, informal, or just in time teaching, with preconceptions. These preconceptions may be so embedded that traditional methods of teaching do not effectively challenge those preconceptions or have the effect of allowing for co-existing conceptions. As a result, they may respond with what is considered the answer for the test and, at the same time, maintain the original preconception about for every day use. Hewson and Hewson (1992) suggest, "When two competing conceptions both exist in the mind of an individual student, the relative status of each idea will determine which idea the student chooses to adopt." David Ausubel (1968, pvi) stressed that, "The most important single factor influencing learning is what the learner already knows." Recognizing that individuals come to any new learning situation with prior knowledge and deeply embedded beliefs and attitudes is essential to engaging on the path to conceptual change. Strategies to address these preconceptions are needed to challenge deeply held beliefs and help students consider alternatives.

Recognizing prior conceptions, therefore, is the starting point for evaluating and challenging those ideas rather than attempting to impress on the individual what he or she should believe. Conceptual change requires that individuals first recognize prior conceptions, that they are confronted with challenging activities that cause dissonance with their prior models, that they make adaptations to those models based on new ideas, or build new models, and that they test those models in authentic situations. This is accomplished in very small cycles of criticism and revision, and occurs best in situations where the participants co-construct understanding through sharing differing knowledge, experiences and beliefs (Clement, 2008; Jeong & Chi, 1997; Khan, 2008; Rea-Ramirez, & Nunez, 2008).

Individuals develop preconceptions or alternative conceptions and beliefs over their lifetime and omit that these cannot be dispelled or changed through a lecture or a few activities (Driver, 1983, p41). Participants need time to think about and visualize through activities such as drawing to learn, analogies, role-play, case studies, and discrepant questioning, what they already know and believe, and then to work in groups to give explanations for what they believe. One step in conceptual change is experiencing some form of cognitive dissonance–an internal state of tension that arises when an existing conceptual system fails to account for integration of or

acceptance of new information (Cooper, 2007; Festinger, 1962; Gawronski, 2012; Graham, 2007; Harmon-Jones, Harmon-Jones, & Levy, 2015; Rea-Ramirez, 2008). This dissonance, the second step in the conceptual change cycle, may be strong in that it represents an explicit, strong incompatibility between a belief and another's belief, or weak where there is a mild sensed discrepancy but enough to feel the need to consider another idea, belief or attitude (Rea-Ramirez, 2008). The idea is to help the individual recognize that their prior conception either does not completely explain the concept or situation, or is incompatible with that of others.

Although experiencing dissonance can indicate to participants that a conceptual problem exists, the dissonance in itself will not solve the problem. This takes active construction of understanding of alternative concepts, ideas, or beliefs. In order for the dissonance to be beneficial and lead to conceptual change, participants need to be given time to: identify and articulate their preconceptions; investigate the soundness and utility of their own ideas and those of others; and, reflect on and reconcile differences in those ideas. Student groups and students and teacher need to co-construct alternative or modified conceptions (Rea-Ramirez, 2008). Since conceptual change occurs in small steps, rather than large leaps, it is not expected that teachers or students would make major conceptual changes after just one lesson. Rather it is through repeated small cycles of criticism and revision.

Construction of new ways of knowing also requires social co-construction of understanding working in groups that include individuals with different kinds of expertise and that encourage challenging of ideas (Vygotsky, 1978; Rea-Ramirez, 2008). The facilitator and others in the groups help to create reflective discourse that allows individuals to consider their beliefs and knowledge and to evaluate whether it is effective in light of other models. As Smith (2017) states, "Such discourse probes for alternative views, encourages the clarification, negotiation, and elaboration of meanings, the detection of inconsistencies, and the use of evidence and argument in deciding among or integrating alternative views."

Applying Conceptual Change in the Social Sciences
In the social sciences most application of the conceptual change model has occurred in economics and environmental issues such as climate change. Murphy and Alexander (2008, p. 597) believed that was due to the fact that misconceptions in biology or physics were easier to identify whereas in the social sciences it was more difficult to establish what was correct or valid. Lundholm and Davies (2015) suggested assigning a better or worse designation of conceptions individuals hold in the social sciences. They suggest, however, that little in the literature indicates that studies in economics or environmental phenomena have examined the process involved as conceptual change occurs (Lundholm & Davies, 2013). Rather, as in the early work on conceptual change in science, evidence has been gathered about what different conceptions exist. Additionally, while there is emerging evidence that actual experience has a

strong effect on shaping conceptions about what is considered 'normal' in society (e.g., Davies & Lundholm, 2012; Philip, 2011), Lungholm and Davies (2013) suggest that, in contrast to looking at what is, looking at what ought to be requires a stronger sense of self. These issues may not exist to as high a degree in the sciences. In this regard, Murphy and Alexander (2008) state that "the conceptual change literature remains in need of a more developmental perspective (p. 597)," along with study on how prior models or initial conceptions are formed (Vosniadou, 2013).

As we have discussed previously, however, work in conceptual change in the sciences does not necessarily hold that a concept must be right or wrong, better or worse, or even scientifically correct, but rather that conceptions may be on a continuum from naïve to sophisticated or expert (Gopnik & Schulz, 2004; Rea-Ramirez & Nunez-Oviedo, 2008; Vosniadou et al., 2008). Hardy et al. (2006) divided these different levels of conceptions as misconceptions, everyday conceptions and scientific concepts or scientific explanations. Whatever terminology is used, it appears that conceptual understanding develops along a continuum rather than in black and white or right and wrong as was seen in Alternative Framework held by many early conceptual change researchers. This may help to explain why the social sciences have been slow to adopt conceptual change as a strategy as many feel that the social sciences involve more gray areas related to phenomena, human decisions, beliefs, and values (Davies, 2006).

Just as in the sciences, where individuals base their knowledge and beliefs initially on observations and experiences, it is the same in many areas of the social sciences. In economics this may be seen in studying economic phenomena where choice, beliefs, and values are very different than studying a scientific concept such as mechanics (Lundholm and Davies, 2013). In other areas of social science such as human rights, individuals' knowledge and beliefs may occur as direct exposure to intolerance and even violence, or to erroneous teaching and behaviors of those around them. Both teachers and students may not see the need to change their beliefs or attitudes when, as in the sciences, these conceptions have served them well to explain how their world works.

Gregoire (2003) introduces another facet of conceptual change that may affect the use of the theory in teaching the social sciences. That is, some concept areas in social science evoke such a strong emotion that it affects whether a person even considers changing a belief. In Gregoire's model of teacher belief change, anxiety and fear of a suggested different way of teaching a concept may cause the teacher to see the suggested change as a threat and not engage in conceptual change. This may also occur in students where the concept change is so great, or dissonant, that they shut down to further engagement.

When we consider the use of the conceptual change model in a highly sensitive area of study such as human rights, and specifically, freedom of religion or belief, we may be very much in this area of high emotion.

Individuals then have to decide whether to engage in looking at their preconceptions and decide whether to challenge them, or whether they will not participate because it is too emotionally charged. In the area of climate change teaching, Lonbardi and Sinatra (2013) found that negative emotions actually decreased the teachers' ability to adequately weigh the evidence and decide whether factors were affecting the climate. Even where emotions are low, however, teachers and their students may find that the status they give to their beliefs is so strong they do not see a need to change them. In this instance, if a change in the concept or belief is important enough to need to undergo change, they may need help to recognize that change is needed. This is consistent with the ideas of Hewson and Hewson (1992) that the relative status of beliefs will affect which belief the individual holds on to. This is especially true in the area of teaching about FORB where not just emotions, but deeply embedded traditions affect the strength of beliefs.

Using Conceptual Change Theory to Teach About FORB
Introduction to the Professional Development Training
In the years 2015-2017 a series of trainings were held in multiple countries of the Middle East. This included teachers from Iraq, Morocco, and Lebanon. The training of teachers consisted of two major parts, conceptual learning on freedom of religion or belief, including Article 18 of the Universal Declaration on Human Rights, and learning about effective pedagogy based on conceptual change to teach FORB. The following major concepts were included in the training as they are considered to be central to understanding and fostering conceptual change about freedom of religion or belief that can build resiliency and lead to prevention of intolerance and social hostility toward religious communities and those who have differing views.

- Non-discrimination: Every person has the same right to believe and practice their beliefs by nature of their common and inherent human dignity and require equal protection under the law, especially women, children, minorities, atheists, dissenters, and adherents of non-traditional or new religions.
- Conscience: The spiritual dimension of human life is provided special protection because it is where ideas, beliefs, and convictions about religious truth, morality, and life after death are explored and shape how we live; individuals within a religious community define the scope of their beliefs.
- Changeability: Every person is born with a conscience free to explore eternal truths and change their beliefs as they grow; religion or belief is changeable and no one can be forced to adopt a religion or belief; it is not an immutable characteristic like race or gender and individuals can choose not to have one.
- Individual right: Individuals hold the right to freedom of religion or belief, but this right also protects the individual's right to practice their beliefs within a religious community and to dissent from the community; it also protects the right of parents to teach their children their religion.

- Public and Private: Religious beliefs are formed within the human conscience and influence how individuals act or express themselves publicly in accordance with their conscience and sense of religious obligation.
- Expression: Individuals have a right to practice their religion in various ways, including those most common among all religions, in order to fulfill their personal obligations of worship by acting in accordance with their conscience and beliefs; this includes right to share their beliefs with others.
- Limitations: There are no limits on what people may believe but there are limits on how they express their beliefs; religious expressions that violate the rights of others are not protected and there are times the government may need to limit expression to protect public safety, order, health or morals.

The initial trainings took place over five days. Follow up video conferences were then held throughout the months following to support the teachers in lesson plan development and in teaching on FORB in their own classrooms. A second training session took place three months after the initial training to revisit and extend learning with the teachers.

Based on the belief that conceptual change takes place along a continuum, the program to equip teachers to teach about FORB was designed to facilitate religious literacy with a change in knowledge, beliefs, and attitudes from naïve conception to sophisticated. Figure 1 shows the conceptual understanding and beliefs at each level. It describes what one would expect an individual with naïve, intuitive, developed, or sophisticated knowledge, attitudes, and beliefs to use in a given situation. It is not expected that every element at one level is either expressed or expressed at a single time. Some individuals may hold beliefs that cross two levels as they are struggling with new understanding. Each move from Naïve (level 1) to Intuitive/Developing (level 2) to Developed/Thoughtful (level 3) to Sophisticated/Insightful (level 4) indicates a conceptual change.

The nature of the FORB educational model is one that revisits the major concepts over time. This allows participants to struggle with the concept, adapt their model and then test that model in new circumstances before going on to another criticism revision cycle.
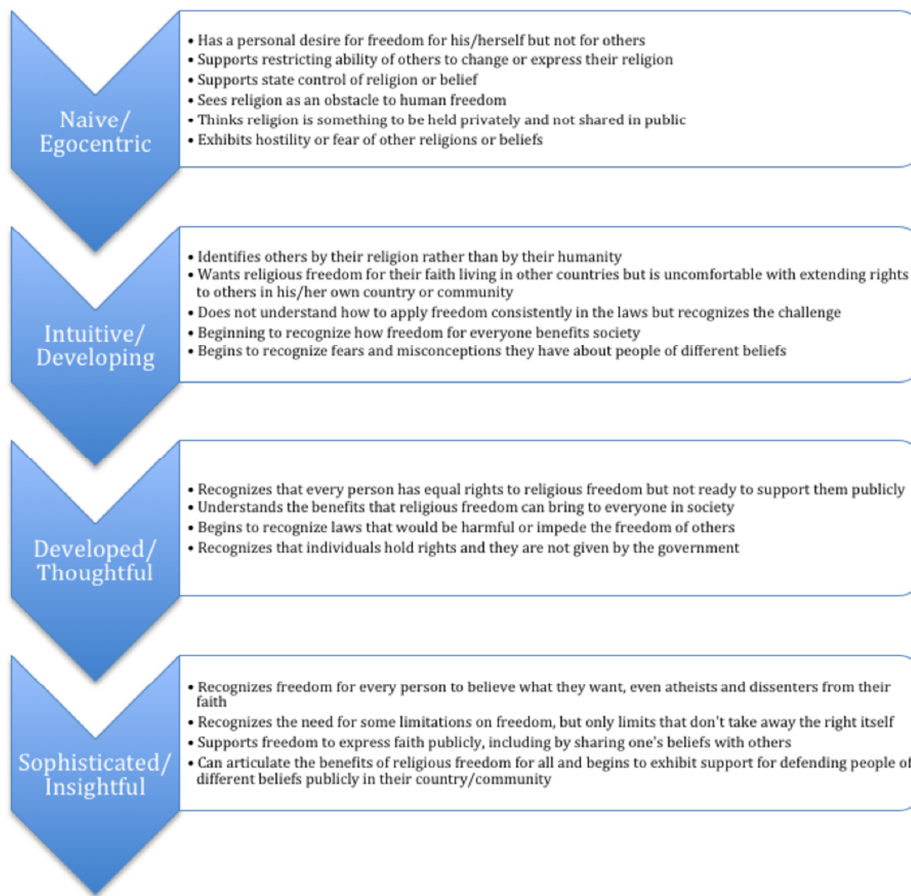
Figure 1. Levels of Understand of Freedom of Religion or Belief

and knowledge. Strategies such as analogical reasoning, role-play, and simulations, allow the partici-pants to creatively extend, combine, and modify existing ideas and beliefs by constructing and testing new models of understanding.

Students then need opportunities to apply their new/ revised models in authentic situations. This is accomplished in repeated cycles of criticism and revision through analysis of scenarios, role-plays, and other activities. At the end of the trainings with civil society leaders, a major component of Hardwired's program was to assist partici-pants in developing strategies and projects that they would then take back to their community to engage others in helping to solve the problem of intolerance, mistrust, and radicalization through directed action. Similarly, teachers developed lessons to share with their students following the training. It is through repeated applications of the new model that teachers were able to not only influence change, but also refine and solidify their own understanding of freedom of religion or belief and how they can impact long term change. Teachers constructed new lessons in their discipline whether it was science, math, literature, social science, or art to use in their own classrooms and to share with other teachers. These lessons are all based on conceptual change and rely on conceptual change strategies. For the students who they teach, application is made through on the spot scenarios, as well as extended community based projects.

3 Use of conceptual change strategies in FORB training

To facilitate conceptual change during the program, trainers facilitated discussions and used simulations to introduce new information and perspectives that led participants to discover the universal standard of freedom of religion or belief as a human right for all. Throughout the training, teachers engaged in interactive activities in small groups where ideas were exchanged and challenged. Active engagement was believed necessary to accomplish the goal of pluralism. Trainers used discrepant questioning and open ended prompts to address the conceptual changes they observed, incorporating into the program traditions and customs of the community, beliefs and attitudes, communal grievances, and possible conflicts. At times, the training presented information that challenged preconceived ideas, or revealed biases and misperceptions that created discomfort. This exchange often led to cognitive dissonance between members of the group as their experiences, knowledge, and beliefs differ. There were also personal, social and motivational processes particularly involved in conceptual change surrounding FORB. These include personal courage, confidence in one's abilities, openness to alternatives, willingness to take risks, and deep commitment solving the problem.

The facilitators used research based tools and instructional techniques to assist participants in understanding new concepts as they challenge old models. They assist participants in co-constructing deeper understanding outside their own initial beliefs, attitudes,

4 Conceptual change process and evidence

The conceptual change model used in this training consisted of three major parts, accessing prior concept-tions, criticism and revision, and application and evaluation. These cycles were revisited many times throughout the workshop to help all participants to move slowly through small steps in changing knowledge, attitudes, and beliefs. To provide a description and evidence of the use of conceptual change we will step through one particular activity, a simulation referred to as Sanctuary Island that was used along with other interactive activeties. Throughout the engagement in the activities, not only were misconceptions addressed, but also new concepts of freedom of religion or belief such as the nature of humanity, human dignity, and the universality of freedom of religion or belief, and international law on freedom of religion or belief were introduced. These presented additional concepts that stimulated discussion

and challenged participants' knowledge, beliefs, and attitudes.

The Sanctuary Island activity was divided into three parts with three learning outcomes. The outcomes were broad and required many steps of criticism and revision to demonstrate competency. These included:

- Participants will be able to identify with an oppressed group, and verbalize their fears and misconceptions concerning freedom of religion or belief.
- Participants will construct a solution for how diverse groups can live together in peace without violence.
- Participants will construct a set of agreed upon rules of behavior that reflect knowledge of Article 18 of the Universal Declaration of Human Rights.

5 Accessing prior conceptions

The concepts of freedom of religion or belief and the international law protecting that freedom were introduced first through a series of activities that helped teachers access their prior conceptions, including misconceptions, fears, and attitudes about this human right. This included a major simulation called "Sanctuary Island" in which participant groups took on the role of different fruit groups. Throughout the simulation, trainers facilitated discussion of the international law and other concepts of FORB to help participants make connections between what they were doing in the simulation and the basic concepts.

Hardwired had found through conducting this activity previously with other adult groups, that assigning groups different faith identities presented a set of issues that may have retarded the conceptual change process. That is, some individuals were unable to let go of their own strong identity with their faith group to imagine what someone else would think or feel. For this reason, the idea of using fruit allowed members of the group to design their identity and area of oppression, while relieving some of the initial resistance, which improved participation and discourse about the nature of religion or belief. By determining how they were oppressed, participants were able to have a more vibrant discussion about the nature of violations of freedom of religion or belief in subsequent lessons. It ultimately allowed individuals to engage more fully and therefore fostered conceptual change.

The fruit groups were initially asked to develop their identity as an oppressed group. This was intended to encourage participants to identify fears and misconceptions by projection onto their new identity. This generation of identities actually allowed teachers to access their own prior conceptions while taking on the character outside themselves. This may have acted to decrease the emotion connected with the experiences and allowed them to engage more fully in the conceptual change process. Common misconceptions in FORB that emerged included:

1. Others are bad they may hurt us because we are different;
2. Ideas and values taught in religious schools, even when the information is false, is considered true and should be acted upon;
3. Freedom of religion is about changing religion not about human rights;
4. To accept ones own faith is to not acceptance other religions, customs, symbols, and religious differences;
5. Minorities should not be given a space to share their story;
6. Others will not listen to me because I am different.
7. Everyone in our community is tolerant. We each live in our separate groups.

While misconceptions appeared during this time, an attempt was not made to immediately replace misconceptions with the accepted belief or attitude, as this rarely has lasting conceptual change effect. The simplest misconceptions can be dealt with immediately such as what occurred with the fruit groups when they challenged each other during their presentation of the groups' identities. This also lays the groundwork for the more complex misconceptions that will be addressed later in the training, or for some in subsequent trainings. While not drawing attention to right or wrong suggestions at this time, the facilitator made note of all major conceptions, whether misconceptions or naïve, on posters in front of the class so that as groups struggle with the concepts they could later revisit the list and begin to identify for themselves, with support from the facilitator, ones that they are now ready to address or change.

6 Criticism and revision cycles

Once prior conceptions were visualized and discussed, the simulation proceeded with all groups fleeing their country of origin and ending up on an island where now they were faced with survival among some of the very fruit they had escaped. This began the next phase of the conceptual change cycle in which teachers challenged and criticized prior models and suggested new conceptual understanding. For example, when presented with the notion that the island was small and not all areas had all resources the fruit groups needed to survive, participants had to think about how they would react in this new situation. Many might be afraid when they learn that fruit that represent their oppressors are on the island also. But now they were all on the island and needed to find a way to survive. This brought out their misconceptions and fears and suggested similarities to their own schools and communities. Indeed, when fruit groups were then asked to decide what they would do to survive, many said they would isolate themselves. This seems to be consistent to what many experienced in their own communities where there is isolation and discrimination among faith groups. Again concepts of FORB were introduced to help participants make connections between the situations in the simulation and the reality of FORB in the community and schools.

They were then challenged with the question, if the easiest solution does not work, then what would you do? This was intended to cause dissonance and to lead to co-

construction of new ways of thinking about freedom of religion or belief. If prior ways of believing and coping do not fit a new situation, in the conceptual change cycle, learners must struggle with uncertainty, and even discomfort, to come up with new ways of thinking. Throughout these criticism and revision cycles dissonance was essential to help participants recognize where fears and misconceptions about others was preventing them from building pluralistic communities.

Along with the three major stages of Sanctuary Island, three other activities were introduced to enhance learning about FORB and to challenge participants to engage more deeply in challenging their prior concepts. These were the Tree of Intolerance, Tree of Pluralism, and Galileo activities. Each explored facets of freedom of religion or belief that participants later incorporated into their decisions in Sanctuary Island. This was important as it takes many small cycles of revisiting certain concepts to help students struggle with the ideas and negotiate change. One activity is not enough to help the student move through the different levels of dissonance and construction. Breaking the learning down into small pieces has been referred to as model evolution and according to Clement (2008) may enable students to better engage in the reasoning process necessary for the co-construction phase.

One way additional dissonance was introduced was through complication cards that gave more information for each group by introducing new challenges. This stimulated more dissonance and co-construction, prompted by open-ended questions posed by the facilitators as they moved among the groups. This was an opportune time also for the facilitators to help participants make connections between elements of the simulation and the concepts of FORB as well as challenging the models they had constructed thus far.

To make decisions about how the groups could mitigate the fears held by themselves and others, groups were asked to send an ambassador to other fruit groups where they challenged one another to explain what they believed and why, along with possible solutions for living together on the island. This gave each fruit group an opportunity to ask others questions and to hear the fears and misconceptions held by different groups. This was particularly important in using conceptual change in FORB as fears and misconceptions of religious other were a major factor where participants needed time to both listen to others and to have a voice.

6 Application and evaluation
Finally, participants had to decide on a plan to live together on the island to the benefit of all. They needed new laws that would insure the freedoms that each group had come seeking. This again introduced the Universal Declaration of Religious Freedom and specific concepts of Article 18 rights and had direct application for the teachers and ultimately their students who were struggling in communities where segregation and discrimination were common. Groups were asked, 'Who is going to decide what rights you have?' This was

important because some participants were still avoiding conflict at this point and did not recognize that they deserved to not be mistreated. They were not able to defend themselves or their idea, and their arguments were very weak. This stimulated a large group discussion where more naïve ideas were challenged by other participants, who asked, what if the law changes, and what happens if you are a minority? This led to a very heated conversation where dissonance was initiated by members of the groups and actually helped others to begin to think more deeply, enabling them to have an ah-ha moment. When they then voted on where they thought freedom of religion or belief came from, some radically changed their answers to demonstrate an understanding that it was an inherent right they were born with as a human rather than a gift bestowed by the government or society. It appeared to finally challenge some participants who had not until this time looked deeply at their own beliefs or constructed new ways of thinking about FORB.

Groups were then given the challenge of developing rules for life on the island. Drawing on what they had learned about the Universal Declaration of Human Rights, several groups were able to articulate the universal depth of the freedom of religion or belief. The groups who did, had more developed rules, and had experienced greater dissonance and construction within their group discussion.

Throughout the process of the Sanctuary Island activity, participants were encouraged to go through multiple cycles of criticism and revision, central to conceptual change. Prior conceptions were accessed, dissonance was initiated, and construction was supported. After each small cycle, levels of conceptual change were assessed as participants encountered new challenges on their island. While a pre-post test was used to measure overall conceptual change, after each day participants were also asked to describe their concept of FORB. This provided a picture of how their model was evolving over the process of the workshop. Additionally, artifacts, such as their posters, constructed analogies, notes from discussions, and drawings helped to document the change as it was occurring. Feedback was collected immediately after the workshop and during the months that followed that provided anecdotal evidence of knowledge, belief, and attitude changes. Finally, student data collected from the teachers teaching the FORB lessons in their home classrooms, provided further evidence that statistically significant learning had taken place through the conceptual change strategies.

Pedagogy of Conceptual Change in FORB Training
In addition to the conceptual change that occurred with participants' concepts, beliefs and attitudes about FORB, the training also consisted of the pedagogy of conceptual change. All of the teachers involved in the trainings had primarily engaged in a very traditional lecture style teaching prior to this. The training addressed five learning outcomes:

- Participants will articulate their current method and pedagogy in teaching and recognize how conceptual change can lead to deeper conceptual understanding.
- Participants will articulate challenges and barriers in their country and/or school that affect teaching on Freedom of Religion or Belief and propose solutions.
- Participants will design activities based on new pedagogical strategies that actively engage the students and lead to conceptual change.
- Participants will design an effective five-step lesson plan on Freedom of Religion or Belief.
- Participants will design a strategy for teaching the lesson in their home country and for training others to use the lessons in formal and informal settings.

The same strategies for conceptual change that teachers were expected to eventually use in their teaching were also used to teach the new pedagogy. Strategies were used to engage participants interest and access prior conceptions, then student active learning through analogies, drawing to learn, experiential/hands on, discrepant questioning, and role-play and debate were used to produce dissonance and co-construction. Case studies were used to apply new models for further criticism and revision. Teachers then worked together in discipline teams to design a five-step lesson plan based on conceptual change. This finally culminated on training in assessment of conceptual change.

7 Continuum of change

As described previously, evidence collected throughout the training supported that conceptual change was occurring. This included knowledge and beliefs of the concepts of changeability, non-discrimination, individual right, expression and public-private practice of faith. For example, the concept of believing that everyone has the right under international law to change their religion was noted in one teacher who also voiced several major concepts of religious freedom in this statement:

"There has to be a clear line between freedom of religion and extremism. When someone changes, we need to respect him or her. They do not present any danger to us when they change …. When you treat people with a bad attitude, you're not doing what your religion is telling you. We have to think all religions are equal and treat people in a good manner. Even if his opinion contains some wrong ideas or wrong thinking, he can still be dialoguing to prove whether he is wrong or right … He has the right to raise his voice to speak up for his ideas; the authorities have to provide him the tools and protection to express these ideas or else he might be harassed by the community. Not only does he need freedom of expression, he needs protection."

Early in the training, most teachers held the belief that freedom of religion or belief could be summed up with one word – tolerance. This tolerance often came with separateness. As the teachers worked through this together, however, they began to see that tolerance is a very naïve concept on the scale of freedom of religion or belief, especially where one is also separated from other groups. In this instance, little interaction occurs, there is

no need or emphasis to consider situations from another's perspective, and little dissonance happens to cause conceptual change. The teachers found that when they were challenged by the activities and others from different faiths and genders they began to move from tolerance toward the concept of pluralism. This move, however, took many cycles of criticism and revision and only a few developed a very sophisticated level of understanding in the first workshop. At the same time, comments particularly by the third day, indicated that the teachers highly valued inclusiveness and many could voice at least the beginnings of pluralism, empathy, respect for human dignity, equality, and acceptance as needful to lead their communities to build resiliency and a respect for freedom of religion or belief.

From an initial analysis, a continuum has begun to emerge that indicates individuals pass through stages of conceptual beliefs from tolerance with separation to tolerance, to coexistence, along a path that we hope will eventually be a sophisticated understanding and belief where individuals are willing to defend others who hold different beliefs. However, we expect that while these are the first elements of language that individuals use to explain their knowledge, beliefs, and attitudes about FORB, as participants engage more in the process, many other levels will emerge that characterize deeper conceptual change and allow us to build dynamic models. This is an important point as beliefs that become stagnant at the tolerance and co-existence level do not lead to the level of FORB understanding that translates into sophisticated FORB behaviors.

In fact, one of the major behavioral changes noted in many of the teachers was empathy. At first many said they did not even have a word for empathy and were unable to recognize it. Many described actions based on culture or because they identified with a faith group but not because of empathy for others. While many of the participants came from schools with one religion, they began to form an empathy toward other participants as they shared experiences and were confronted with, not just others beliefs, but their deep feelings of isolation and oppression. This was evident in how they related to one another. Two Yazidi teachers joined together to develop and teach a lesson throughout displaced person communities called The Peaceful Garden. Others realized that even those in a majority could experience oppression. All were inspired to create lessons and/or songs for children on freedom of religion.

8 Summary

When left unchecked, the religious dimension of conflict incites social hostility and can lead to radicalization and violent extremism. Education has been widely seen as a possible preventive measure to radicalism and intolerance. Hardwired's training of teachers, has provided substantial evidence of the impact that education based on conceptual change in the area of human rights can have in combatting religious intolerance and violence in the world. (For more detailed data and analysis please

visit www.hardwiredglobal.org/research. This data is currently being prepared for publication).

Hardwired designed and implemented the program described in this paper to meet the need to address religious intolerance, radicalization of youth, and violence. It was based on their work in over thirty countries from every region, and the assessment of common fears, misconceptions, and challenges to acceptance of freedom of religion or belief. Hardwired's past experience implementing training programs for civil society leaders and politicians related to freedom of religion or belief, and a survey of current initiatives on this freedom, religious tolerance, and/or interfaith relations provided the groundwork for this project. Hardwired's teacher training program that was developed was intended to contribute to an atmosphere of respect toward freedom of religion among youth by training primary and secondary school teachers to develop and share lessons on freedom of religion with their students, other educators, and the community. The ultimate purpose of this program was to provide students with an educational curriculum that promotes human rights, freedom of religion or belief, and pluralism. Hardwired trains educators to teach lessons on these concepts in their own classrooms and to train other teachers. These lessons present students with a positive alternate narrative from a young age and establish resiliency in a potentially vulnerable population.

This paper presents a model for FORB education grounded in conceptual change theory and strategies that has been implemented in the Middle East and North Africa under a grant from the British Foreign and Commonwealth Office. The authors drew on knowledge and success in conceptual change found in other fields such as science and math to design a curriculum that addressed the needs of teachers both in content and in pedagogy. The conceptual change model consisted of criticism and revision cycles in which the participants' preconceptions were accessed, activities were introduced to cause dissonance, and omit to help participants co-construct models of freedom of religion or belief. During the dissonance and co-construction phases, participants challenged their own misconceptions, naïve conceptions, and fears, and those of others. This struggle helped participants to move along a continuum from tolerance but separate, to co-existence, and even for many to empathy and a more sophisticated understanding of freedom of religion or belief in which they were willing to stand up for another's rights to believe even when it differed from their own. It allowed participants to integrate the concepts of human dignity, empathy, and universal law on FORB and then to apply this new knowledge, beliefs, and attitudes to their own classrooms and to their communities. It is expected that such as curriculum built on conceptual change theory could be used globally to build religious literacy, tolerance, and empathy.

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