



## “Interconnectedness - The key to personal and collective well-being”

Day: Wednesday 11th July 2018      Time: 9:00 – 10:15 am      Track: Philosophical and Dharma Underpinnings

In Buddhism, interconnectedness, or the interdependent nature of all entities, is a core concept that anchor Buddhism practices. It is defined as the insight that all matters do not have an independent existence but rather, their arising and cessation are contingent on an array of causes and conditions happening simultaneously at the very moment. With this realization, people can be relieved from suffering by letting go of their anguish and grievances and enjoy personal well-being. Furthermore, if people can realize this interdependent nature of all beings, they may let down their discriminate mind and strive for equality and justice in order for all sentient beings to enjoy collective well-being. Despite its significance in Buddhism, it has not been operationalized in Buddhist psychology and subject to empirical investigation. The present symposium introduced the concept of interconnectedness and discuss a series of studies that investigated its relationship with personal and collective well-being. The first presentation discusses on the development and validation of the Interconnectedness Scale that lay the ground work for subsequent research; the second presentation investigates the relationship between interconnectedness on one’s connectedness with nature and personal well-being; the third presentation tests a model examining the mediating processes that interconnectedness has with compassion and self-transcendence to affect one’s personal well-being and endorsement of social justice ideology; the fourth presentation uses an experimental design to investigate how the induction of interconnectedness and compassion may affect individuals to espouse a stronger intention advocate for people with mental illness and to reduce their stigma towards mental illness. We hope that this series of empirical studies on interconnectedness can stimulate discussion in the audience on related research and application and arouse interest to further understand the relationships of interconnectedness with other Buddhism-derived concepts in future scientific enquiry.



## Symposium overview

- Presenter 1**     **Winnie Mak** - Promotion of well-being by raising the awareness on the interdependent nature of all matter: Construction and validation of the Interconnectedness Scale
- Presenter 2**     **Ben Yu** - Transcending the self: How interconnectedness is linked to nature connectedness and well-being
- Presenter 3**     **Amanda Fu** - From personal well-being to social justice for all: How interconnectedness bridges individuals to the collective
- Presenter 4**     **Ben Yu** - Reducing stigma through interconnectedness and compassion: A Buddhism-based approach for stigma reduction on people with mental illness
- Chair:**             **Winnie Mak**



## **Promotion of well-being by raising the awareness on the interdependent nature of all matter: Construction and validation of the Interconnectedness Scale**

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**Background & Objectives:** The present study aimed to operationalize the concept of interconnectedness through constructing and validating an interconnectedness scale. Interconnectedness is a Buddhism derived concept and is defined as an awareness that matter in the world arises when certain causes and conditions are simultaneously fulfilled and the matter changes dynamically with the confluence of numerous factors contributing to its rising and cessation. By discovering that everything arises interdependently, Buddha understood the fundamental cause of suffering as well as the way to release the suffering. Furthermore, Thich Nhat Hanh addressed that understanding of interconnected nature of all phenomenon in the universe enables one to develop compassion toward all sentient beings. Considering the potential benefits of interconnectedness, this study attempted to develop and validate the Interconnectedness Scale to facilitate its empirical investigation.

**Methods:** 1072 individuals (58.6% female, mean age =20.70, SD =2.64) were recruited in Hong Kong. The data was splitted into two halves for exploratory factor analysis (EFA)(n= 524) and bi-factor analysis (BIA) (n=523). Data(n=614) were also used to examine the construct validity of interconnectedness.

**Results:** Result of EFA showed a three-factor solution with 12 items for the scale accounting for 61% of the variance explained. This factor structure was confirmed by BIA. The model-fit indexes were CFI= .96, TLI=.93, SRMR= .037, RMSEA= .064. The reliability of the scale is excellent( $\omega$ = .87). In addition, the Interconnectedness Scale also showed significant positive correlation with variables that are related to individual well-being (e.g. peace of mind, psychological, social, & emotional well-being;  $r$ s= .39 to .39,  $p$  <.01), collective well-being (e.g. civic engagement intention, universalism, social connectedness and humanitarianism/egalitarianism,  $r$ s=.30 to .49,  $p$  <.01), Buddhism derived concepts (e.g. compassion, non-attachment, self-compassion, self-transcendence, and mindfulness;  $r$ s=.39 to .52,  $p$  <.01) as well as significant negative correlation with variables that are related to psychological distress (e.g. depression, anxiety, and perceived stress;  $r$ s=-.26 to -.28,  $p$  <.01).

**Discussion & conclusion:** The present study operationalized the concept of interconnectedness and empirically supported its associations with overall well-being. Future study can examine the causal relationship of interconnectedness with well-being and the generalizability of the scale to different populations so to further consolidate the scale's psychometric properties.



## **Transcending the self: How interconnectedness is linked to nature connectedness and well-being**

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**Background and objectives:** The present study aimed to investigate the effectiveness of interconnectedness in promoting nature connectedness and well-being. Nature connectedness was defined as a level of feeling emotionally connected to the nature world. Considerate amount of research showed that nature connectedness was associated with numerous benefits, especially in the promotion of pro-environmental behaviors and well-being. Considering the benefits of nature connectedness, this study proposed that interconnectedness, which addresses the interdependence of all entities in the world, can promote people's perceived sense of connectedness to nature by dissolving one's self-boundary and promotes well-being.

**Methods:** 190 individuals (55.8% female, mean age =30.62, SD =8.70) were recruited through social media and university mass mail. Item parceling techniques were conducted to create latent variables for all the observed variables before the implement of structural equation modeling analysis. Frequency of exposure to nature was added as a control variable to self-transcendence and nature connectedness in the model given its significant correlation these major variables.

**Results:** Result demonstrated good model fit for the model:  $\chi^2(71) = 130.986$ ,  $p < .01$ , CFI= 0.95, TLI= 0.93, RMSEA= 0.07, SRMR= 0.07. The model explained 32.9% variance in self-transcendence, 22.7% variance in nature connectedness and 49.1% in well-being. However, the positive direct effect of interconnectedness on nature connectedness was not significant ( $\beta=0.20$ ,  $p=0.06$ ) although the indirect effect of interconnectedness on nature connectedness through self-transcendence ( $\beta=0.14$ ,  $p<0.05$ ) was significant. The positive indirect effect of interconnectedness on well-being through self-transcendence ( $\beta=0.41$ ,  $p<0.01$ ) was also significant. Nature connectedness was not significantly related to well-being ( $\beta=0.07$ ,  $p>0.05$ ) and was not a significant mediator between interconnectedness and well-being ( $\beta=0.015$ ,  $p>0.05$ ). The direct effect of interconnectedness on well-being was also not significant ( $\beta= -.11$ ,  $p<0.05$ ).

**Discussion and conclusion:** The present study provided empirical evidence to support that interconnectedness was significantly associated with to nature connectedness and well-being through self-transcendence. It also consolidated the evidence that interconnectedness could expand one's sense of belonging to all matters, including nature through promoting self-transcendence. Future study can examine the role of interconnectedness on environmental conservation and well-being promotion.



## **From personal well-being to social justice for all: How interconnectedness bridges individuals to the collective**

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**Background and objectives:** Interconnectedness is a Buddhism-derived concept that refers to the interdependence of all matters as contingent on the arising and cessation of varied conditions. With such insight, it is hypothesized that individuals can enjoy well-being through transcending self-interests and identities and embrace social justice ideology through the cultivation of compassion for all. The present study tested this conceptual model with self-transcendence and compassion mediating the relationships between interconnectedness on one's well-being and social justice ideology.

**Methods:** 614 individuals (68.6% female, mean age =20.47, SD =2.55) were recruited through social media and university mass email to complete an online questionnaire on interconnectedness, compassion, self-transcendence, social justice-related variables including universalism, egalitarianism, and active engaged citizenship, and well-being. Items measured were parceled to create latent variables for all observed variables, and structural equation modeling analysis was conducted.

**Results:** Results demonstrated good model fit for the model:  $\chi^2(df=81) = 204.33, p < .01, CFI= 0.98, TLI= 0.97, RMSEA= 0.05, SRMR= 0.38$ . The model explained 17.3% variance on compassion, 34.2% variance on self-transcendence, 46.8% variance on well-being and 59.2% on social justice ideology. The direct effect of interconnectedness on personal well-being was not significant ( $\beta=0.057, p>.05$ ), and the indirect effect of interconnectedness on well-being through self-transcendence ( $\beta=0.56, p<0.01$ ) was significant, indicating a full mediation process. The direct effect of interconnectedness on social justice ideology was significant ( $\beta=0.41, p<.01$ ), and the indirect effect of interconnectedness on social justice ideology through compassion ( $\beta=.20, p<0.01$ ), indicating a partial mediation process.

**Discussion and conclusion:** The examined model demonstrated that interconnectedness is associated with personal well-being and social justice ideology through different pathways, namely self-transcendence and compassion. It provided a framework for future studies on interconnectedness, and shed light on how we can apply Buddhism-related concept beyond the personal level, to promoting civic engagement in the community.



## **Reducing stigma through interconnectedness and compassion: A Buddhism-based approach for stigma reduction on people with mental illness**

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**Background and objectives:** The present study aimed to investigate the effect of interconnectedness and compassion in reducing stigma on people with mental illness using an experimental design. By dissolving one's self-boundary and expanding one's sense of connectedness to others, Interconnectedness, a Buddhism derived concept and a concept recently operationalized by the authors, that addresses the interdependence of all entities in the world, has the potential to inhibit one's tendency to ingroup/outgroup categorization and reduce stigma. Furthermore, compassion that nurtures people with empathy and motivation to offer help can reduce their bias, may be another potential factor in reducing stigma.

**Methods:** 256 individuals (71.1% female, mean age =20.11, SD =2.01) were randomly assigned to three conditions: interconnectedness, compassion, and control (description of rocks in nature), and were instructed to read an article explaining the concept corresponding to their conditions. Participants were then instructed to listen to a 15-minute audio recording on the concepts corresponding to the conditions. Pre/post/follow-up assessments were administered to participants five days before the experiment, right after the experiment, and two weeks after the experiment, respectively.

**Results:** Findings from linear mixed models showed that the time by condition interaction effects were significant for social distance, personal advocacy, fear and empathy for people with mental illness and general compassion in both experimental conditions compared with control. Participants in the interconnectedness and compassion conditions showed significant decrease in social distance and fear in pre- and post-comparison and the effects were maintained after two weeks. Participants in the compassion condition showed significant increase in personal advocacy and empathy for people with mental illness while those in the interconnectedness condition demonstrated significant increase in general compassion. The effects, however, were not maintained after two weeks.

**Discussion and conclusion:** The present study provided empirical evidence to support the causal association between interconnectedness, compassion and variables related to explicit stigma. Future studies can focus on investigating the underlying mechanisms behind the relationship and examine the role of interconnectedness in cultivating compassion as results indicated that interconnectedness induction could cultivate general compassion even more strongly than compassion induction.