

### Tuesday 22<sup>nd</sup> March

Each presentation is envisaged to be 15-20 minutes in duration with 5 minutes for discussion thereafter.

- 09:10 – 09:30 Check in and Opening remarks
- 09:30 – 09:55 **Kondo, A. & Yamamoto, J.**  
Establishing “naming” as the derived stimulus relation through stimulus pairing procedure in children with autism
- 09:55 – 10:20 **Omori, M. & Yamamoto, J.**  
Do “semantics” facilitate the emergence of equivalent relations in English learning through stimulus pairing training in the students with autism spectrum disorder?
- 10:20 – 10:45 **Matsuda, S. & Yamamoto, J.**  
“Mind Reading” and equivalent relations: Analysis with facial expression and prosody in the students with autism
- 10:45 – 11:05 **Break**
- 11:05 – 11:30 **Sugasawara, H. & Yamamoto, J.**  
Equivalent Relations between Auditory and Visual Stimuli in Stimulus Pairing Training Procedure
- 11:30 – 11:55 **Kishita, N., Ohtsuki, T., & Muto, T.**  
Contextual Control over Transformation of Function Established by Topographical Features of Equivalence Class Members
- 11:55 – 12:20 **Kubo, A., Hashimoto, R., & Shimada, H.**  
The examination of the reaction characteristic of the words to use for weight related Implicit Relational Assessment Procedure (weight related IRAP)
- 12:20 – 14:00 **Lunch**
- 14:00 – 14:25 **Nicholson, E. & Barnes-Holmes, D.**  
The Implicit Relational Assessment Procedure (IRAP) as a Measure of Spider Fear: Determining the Predictive Validity of the IRAP Effects on Overt Avoidance Behavior
- 14:25 – 14:50 **Hussey, I. & Barnes-Holmes, D.**  
Mood Induction and Implicit Emotional Responses on the IRAP Across Levels of Dysphoria and Experiential Avoidance
- 14:50 – 15:10 **Break**
- 15:10 – 15:35 **Takahashi, M.**  
Process Change in Acceptance and Commitment Training and Behavioral Effect
- 15:35 – 16:00 **McHugh, L., Hooper, N., & Stewart, I.**  
Modelling the direct and indirect effects of thought suppression on value choice
- 16:00 – 16:25 **Stewart, I., Hooper, N., Walsh, P., & McHugh, L.**  
Generalization of Thought Suppression Functions Via Same and Opposite Relations

### Lunch during the conference?

We are organizing an informal get-together during the 12:20 – 14:00 lunch break in the conference program to give attendants the opportunity for informal discussion and exchange of ideas. Those wishing to attend should note their interest to ACT Japan by March 10, 2011. The Cost will be approximately 2,000-3,000 JPY per person. E-mail: [registration\\_for\\_meeting@act-japan-acbs.jp](mailto:registration_for_meeting@act-japan-acbs.jp)

### For Presenters

Each presentation is envisaged to be 15-20 minutes in duration with 5 minutes for discussion thereafter. Audio-visual equipment (e.g., LCD projector, laptop) will be made available for presenting individuals.

### Location

The International RFT Meeting will be located in the Tokyo Office of Doshisha University which is a 5-minute walk from Tokyo station.

### **Div. 566, Level 5, Nippon Building**

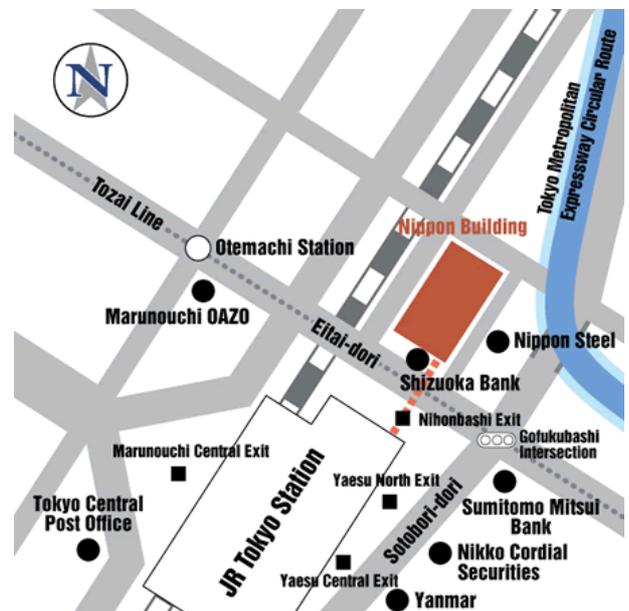
2-6-2 Otemachi, Chiyoda-ku, Tokyo-to 100-0004

<http://www.doshisha.ac.jp/english/access/tokyo-access.html>

Tokyo office of Doshisha University is located on the 5th floor of Nippon Building.

5 minutes' walk from JR Tokyo Station Yaesu North Exit or Shinkansen Nihonbashi Exit. Look for the Shizuoka Bank.

There is a direct escalator connection to the building from Exit B8 of Otemachi Subway Station.



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### **Abstract 1**

#### **Title: Establishing “naming” as the derived stimulus relation through stimulus pairing procedure in children with autism**

Ayuko Kondo, Department of Psychology, Keio University

Jun-ichi Yamamoto, Department of Psychology, Keio University

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In language acquisition, infants establish the equivalent relations between objects and vocal responses. Some researches reported that there was a correlation between the attention to mouth-movement in others' speech and the development of the language (e.g., Young et al., 2009). In the present study, we examined whether children with autism who have difficulty in language production could establish naming using stimulus pairing training. In stimulus pairing training, three stimuli, (1) the picture card, (2) the spoken word, and (3) the mouth-movement were presented simultaneously to the child facilitating the imitation of mouth movements and vocalization.

Throughout the training, the therapist always confirmed that the child was paying attention to the picture card and the therapist's mouth movements. The therapist presented a picture card to the child, and then moved it next to her mouth, then presented correct vocalization. The therapist reinforced only when the child attended to both of the picture card and the therapist's mouth. After each stimulus pairing training, we evaluated the child's naming to the presented picture. Results indicated that the correct naming was established by stimulus pairings of picture card, spoken word, and mouth-movement in children with autism who were in wide range of developmental stages.

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### **Abstract 2**

#### **Title: Do “semantics” facilitate the emergence of equivalent relations in English learning through stimulus pairing training in the students with autism spectrum disorder?**

Mikimasa Omori, Department of Psychology, Keio University

Jun-ichi Yamamoto, Department of Psychology, Keio University

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For acquiring reading and writing, we need to construct the equivalent relations among pictures, letters, and sounds. Students with autism spectrum disorder (ASD), however, have difficulty in the acquisition of these equivalent relations. In the present study, first we examined the controlling variables for the acquisition of equivalent relations between Japanese and English words by comparing two types of stimulus pairing trainings for students with ASD and typically developing students. In “Japanese-English” pairing training, Japanese word was presented first, and then English word was presented. In “English-Japanese” pairing training, English word was presented first, and then Japanese word was presented. The results showed that they could successfully acquire the spelling of English words which were not trained. The students with ASD acquired English spellings faster than typically developing students through both trainings. In addition, they showed better results in the acquisition of English spelling after “Japanese-English” pairing training. The result of the present study showed that the first presentation of already established word (i.e., Japanese) was effective. These results suggest that the order of stimulus presentation is a key for facilitating equivalent relations after stimulus pairing.

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### **Abstract 3**

#### **Title: "Mind Reading" and equivalent relations: Analysis with facial expression and prosody in the students with autism**

Soichiro Matsuda, Department of Psychology, Keio University

Jun-ichi Yamamoto, Department of Psychology, Keio University

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The basis of "reading other's mind" behavior contains equivalent relations among social stimuli, such as other's facial expressions, emotion-words, prosody, and contexts. We developed an integrated program for establishing equivalent relations among social stimuli and enhancing "mind reading," Face Expression Expert Program (FEEP) (Yamamoto & Matsuda, 2010). Based on FEEP framework, the present research examined the conceptualization of prosody and facial expression (picture), and the condition for forming equivalent relation in individuals with autism who had difficulty in social functioning. (1) In Stimulus Pairing procedure, we presented prosody (happy/sad) and the corresponding picture of face (happy/sad) simultaneously. (2) In Matching-to-Sample procedure, the participant was required to choose a picture of face (happy/sad) corresponding to a given vocal sound of uttered prosody (happy/sad). After the training, we evaluated both the conceptualization and the equivalent relations with Matching-to-Sample. The result showed that individuals with autism who were weak in social cognition learned faster with Matching-to-Sample than Stimulus Pairing procedure. However, once learning was established, both the conceptualization and the equivalent relations emerged. These results are discussed in terms of behavior analysis of "mind reading."

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### **Abstract 4**

#### **Title: Equivalent Relations between Auditory and Visual Stimuli in Stimulus Pairing Training Procedure**

Hiroshi Sugawara, Tokiwa University

Jun-ichi Yamamoto, Keio University

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Equivalent relations are the necessary condition of language and cognitive development. Horne and Lowe (1996) argued that the "naming" is the basis of the emergence of equivalent relations. In the present study, we examined whether the auditory stimulus would facilitate the emergence of equivalent relations. We trained 25 undergraduate students with the one-time-only stimulus-pairing procedure and evaluated the effectiveness to the emergence of equivalent relations. We used two stimulus sets; one consisted of auditory stimuli and visual stimuli, other consisted of visual stimuli only. If the emergence of equivalent relations is based on "naming," the stimulus set including auditory stimuli would be easily derived to equivalent relations than visual-only set. As results, 7 of 25 participants perfectly showed equivalent relations through the stimulus-pairing procedure. The group which was trained with auditory and visual stimuli showed higher correct response than the visual-only group. These results are discussed in terms of the "naming" and equivalent relations in the stimulus pairing procedure.

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### **Abstract 5**

#### **Title: Contextual Control over Transformation of Function Established by Topographical Features of Equivalence Class Members**

Naoko Kishita, Doshisha University

Tomu Ohtsuki, Waseda University

Takashi Muto, Doshisha University

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The aim of this study is to replicate the finding of Perkins et al. (2007) and established the experimental methodology which can provide the experimental analysis of the nature of cognitive defusion. Three 3-member stimulus equivalence classes, each consisting of three topographically distinct visual stimuli were established for 9 undergraduate students using match-to-sample (MTS) task. Following the MTS training and testing, participants were provided with many trials in which behaving in accordance with transformation of function was differentially reinforced or punished depending on the presence of a class of physical features of the stimuli. Finally, new equivalence classes were then established and test for generalized contextual control were presented. The result revealed that 7 subjects demonstrated generalized contextual control over derived transformation of stimulus functions. The finding will be discussed in terms of experimental analyses of the nature of cognitive defusion and how we can further the definitive test of the nature and effects of cognitive defusion at the basic experimental level.

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### **Abstract 6**

#### **Title: The examination of the reaction characteristic of the words to use for weight related Implicit Relational Assessment Procedure (weight related IRAP)**

Ayako Kubo, Graduate School of Human Science, Waseda University

Rui Hashimoto, Graduate School of Human Science, Waseda University

Hironori Shimada, Faculty of Human Science, Waseda University

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The purpose of this study was to clarify the reaction characteristic of the verbal stimulus to use for "weight related IRAP" according to discrimination parameter and difficulty parameter with two-parameter logistic model. The data were obtained from 24 undergraduate students. Six general disgust words and 6 pleasant words were used in Olatunji et al. (2007), and 6 weight related disgust words and 6 pleasant words were used in the study. Reaction times in IRAP and the personal property value which is calculated by subtracting the BMI value that a participant aimed for from standard BMI value 22 were used for analysis.

The verbal stimulus that discrimination parameter was more than 1.00 were 4 general words and 6 weight related words in obesity - disgust related and, 5 general words and 3 weight related words in obesity - pleasant related. It was showed that difficulty parameter of the words that we used can have various values ( $-8.00 \leq b \leq 5.92$ ). However, the difficulty parameter is desired to be around 2.00-5.00 considering the average of personal property value is  $3.49 \pm 1.66$ .

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### **Abstract 7**

#### **Title: The Implicit Relational Assessment Procedure (IRAP) as a Measure of Spider Fear: Determining the Predictive Validity of the IRAP Effects on Overt Avoidance Behavior**

Emma Nicholson, National University of Ireland, Maynooth

Dermot Barnes-Holmes, National University of Ireland, Maynooth

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A greater understanding of implicit cognition can provide important information regarding the aetiology and maintenance of psychological disorders. The current study sought to determine the utility of the Implicit Relational Assessment Procedure (IRAP) as a measure of implicit aversive bias towards spiders in two groups of known variation, high-fear and low-fear. The study also endeavoured to ascertain the predictive validity of the IRAP in terms of real-life behaviour by means of a Behavioural Approach Task (BAT). Participants were divided into two groups, high- and low-fear, using the FSQ. They each completed the IRAP which was designed to measure implicit fear/disgust reactions and approach bias to pictures of spiders and pleasant scenes. Results demonstrated that the IRAP can differentiate between two groups of known variation in relation to attitudes to spiders. Furthermore, these distinctions acted as predictors for overt avoidance behaviour with a live spider. The results will be discussed in relation to the existing literature pertaining to implicit cognition and psychopathology.

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### **Abstract 8**

#### **Title: Mood Induction and Implicit Emotional Responses on the IRAP Across Levels of Dysphoria and Experiential Avoidance**

Ian Hussey, National University of Ireland, Maynooth

Dermot Barnes-Holmes, National University of Ireland, Maynooth

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A broad implicit measure of depressive symptomatology was created by mapping the content of the depression scale from the Depression Anxiety and Stress Scale onto the Implicit Relational Assessment Procedure (IRAP). Normative-low dysphoric and normative-high dysphoric participants completed the IRAP before and after a dysphoric-mood induction procedure. At baseline, both groups produced a positive emotional response bias. After the dysphoric mood induction, the low-dysphoric group showed no change, whereas the high-dysphoric group showed a significant decrease. A similar pattern of differential change was found when high and low groups were created using AAQ-II scores. The main driver of change was found to be significant decreases in the high-normative dysphoric group's "when life is bad...I feel bad" trial type, although roughly equal decreases on the "when life is bad...I feel good" trial type were also found across groups. Findings are related to the broader literature on cognitive reactivity to negative mood.

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### **Abstract 9**

#### **Title: Process Change in Acceptance and Commitment Training and Behavioral Effect**

Minoru Takahashi, Mejiro University

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This study evaluated the effectiveness of a workshop on Acceptance and Commitment Training (ACT ; Hayes et al. 2004) for graduate students who specialize in clinical psychology. ACT aim was to prevent burnout, excessive stress, to acquire a demeanor to seek effective therapeutic methods, and to attain the attitude that is necessary for therapists using Acceptance and Commitment Therapy. In this study there were two new goals in comparison to the previous studies. One was to measure the subjective effects of training at half point, not only pre- and post-workshop. Another was to use a behavioral measure, i.e. cold pressor task, since the main theme of the ACT workshop was the relation between verbal and overt behavior.

The results were that Acknowledgement Test' s Score found a significant effect of process, but AAQ-II scores were not significant. Comparison between pre- and post-scores for STAI showed a significant difference for only the State-Anxiety subscale. On the other hand, tolerance time for cold pressor task did not differ significantly, but the changes of the VAS score regarding the task reached a significant level.

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### **Abstract 10**

#### **Title: Modelling the direct and indirect effects of thought suppression on value choice**

Louise McHugh, Swansea University,

Nic Hooper, University of Kent,

Ian Stewart, National University of Ireland, Galway

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The current study sought to provide an empirical model of the direct and indirect effects of thought suppression on value choice. In Experiment 1 (direct effect) participants were required to make a preference on a dichotomous choice. After making their selection they were instructed to repeat the choice task while suppressing all thoughts of a target word which was programmed to appear each time participants selected their originally preferred item. Results showed that participants gradually changed their original preference to avoid coming into contact with the target unwanted thought. Experiment 2 (indirect effect) extended Experiment 1 using a more elaborate model of thought suppression involving transfer of functions through derived relations. Participants were first trained and tested for the formation of three derived equivalence relations using a match-to-sample procedure. During the thought suppression phase in Experiment 2 only the derived words and not the actual target item appeared when participants chose their preferred item. Findings from Experiment 2 showed that participants again gradually changed their preference, this time to avoid items in derived relations with the target unwanted thought. Implications and future research directions are discussed.

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### ***Abstract 11***

#### **Title: Generalization of Thought Suppression Functions Via Same and Opposite Relations**

Ian Stewart, National University of Ireland, Galway

Nic Hooper, University of Kent

Paul Walsh, University of Wales, Swansea

Louise McHugh, University of Wales, Swansea

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This study investigated generalization of thought suppression functions via trained and derived 'same' and 'opposite' relations. In Experiment 1 participants were first exposed to matching-to-sample procedures to establish contextually controlled 'same' and 'opposite' relational responding. They were then trained and tested for formation of two five-member relational networks composed of 'same' and 'opposite' relations. In the final stage they were instructed to suppress all thoughts of a particular word, which had previously appeared in one of the two relational networks, while a number of words appeared on the computer screen in front of them in a quasi-random cycle including the to-be-suppressed word, and words either in the same (experimental) relational network as the latter or in a different (control) relational network. During this final phase, participants could remove any word from the screen by pressing the spacebar. Findings showed that they removed the target word more frequently and faster than other words; removed words in trained relations with the target more frequently and faster than words in derived relations with it; removed words in 'same' relations with the target more frequently and faster than words in 'opposite' relations with it; and removed words in the experimental relational network more frequently and faster than words in the control relational network. These patterns were seen both at an individual as well as at a group level. In Experiment 2, which involved training and testing a network involving more 'opposite' than 'same' relations, a somewhat similar but weaker pattern was observed.