

(For JSPS Fellow)

Form B-5

Date (日付)

23/02/2015

(Date/Month/Year:

日/月/年)**Activity Report -Science Dialogue Program-**

(サイエンス・ダイアログ事業 実施報告書)

- Fellow's name (講師氏名): Jasmina Stevanov (ID No. P13011)- Participating school (学校名): Saga Prefectural Chienkan Senior High School- Date (実施日時): 07・02・2015 (Date/Month/Year: 日/月/年)- Lecture title (講演題目): (in English) The Pleasure of Being Deceived and the Pleasure of Understanding HOW We Have Been Deceived(in Japanese) 騙される楽しみと、どうして騙されたか理解する喜び

- Lecture summary (講演概要): Please summary your lecture 200-500 words.

Trick Art museums are gaining momentum all over the world, especially in Japan. Kitaoka Akiyoshi, Fumito Ito, Fukuda Shigeo, Kokichi Sugihara are to be thanked for popularisation of visual illusions worldwide, but also for their scientific contribution to explanation of such interesting perceptual phenomena. Visual illusions demonstrate that sometimes there is a disagreement of perception with 'reality' i.e. perception is illusory when two objects are physically equal with respect to some feature but appear different, and also when they are physically different but appear equal; Although visual illusions intrigued ancient philosophers, art impressionists, op artists and contemporary art illusionist in order to trigger the enjoyment of being deceived, visual illusions are relevant for understanding how our brain works. If we can pinpoint the mechanisms when seemingly our visual system 'fails', we can better understand how it actually works.

In this talk I will demonstrate several distinct visual illusions and how to break illusions into non-illusory parts. More emphasis will be put on ambiguous images; With ambiguous images there is 'more to see than meets the eye', as images are not physically changing - even though our interpretation does. These images are experienced as two equally likely interchangeable percepts, challenging enough to elicit an 'A-ha' experience in novice viewers. 'A-ha' experience (Eureka or Sudden Insight) means rethinking about some basic assumptions about the problem content and realising a new solution, which happens in a relatively sudden and unpredictable manner (Kohler, 1925).

Why this may be important research topic? Developmental studies showed that the young brain is wired to seek explanations, and that activity is analogous to basic drives such as locating

resources. The pleasure associated with discovery and understanding is seen as an intrinsic reward; which plays a major role in developing motivation toward learning. It is key to advance our understanding of neural emotional and cognitive processes in triggering repeated episodes of insightful events that could provide a mechanism for nurturing better analytical thinkers and better problem solvers.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 1h 20 min (分), Q&A time (質疑応答時間) 15 min (分)

◆Lecture style (ex.: used projector, conducted experiments)

(講演方法 (例: プロジェクター使用による講演、実験・実習の有無など))

Projector Used and Prezi presentation: [https://prezi.com/\\_o0ila6wen9t/](https://prezi.com/_o0ila6wen9t/)

◆Interpretation (ex.: assistance by accompanied person, provided Japanese explanation by yourself) (通訳 (例: 同行者によるサポート、講師本人による日本語説明))

key concepts explained by my collaborator 上崎麻衣子 in Japanese

◆Name and title of accompanied person (同行者 職・氏名)

上崎麻衣子

◆Other note worthy information (その他特筆すべき事項):

- Impressions and opinions from accompanied person (同行者の方から、本事業に対する意見・感想等がありましたら、お願いいたします。):

サイエンス・ダイアログに同行させていただき、大変勉強になりました。心理学のように高校では履修科目でない分野の研究について高校生に紹介することの意義や、研究の内容・成果について専門の研究者が直接話すことで大学や大学院が勉強に限らず研究(真実の追求)の機会でもあることを高校生が認識することの意義を感じました。