

## VITA of Kosuke Sawa – March 2003

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- Birth:** Higashi Osaka, Osaka, Japan
- Education:** BA (Human Science), Osaka University, Mar 1996  
MA (Psychology), Kwansei Gakuin University, Mar 1998  
Ph. D (Psychology), Kwansei Gakuin University, Mar 2003
- Experience:** 5-03 to present: Postdoctoral Fellow, UCLA Department of Psychology  
3-02 to present: Research Fellow, Japan Society for the Promotion of  
Science  
3-02 to present: Part-time Lecturer, Department of Psychology, Chukyo  
University  
4-01 to 3-02: Part-time Lecturer, Department of Psychology, Koshien  
University  
4-98 to 3-01: Research Fellow, Japan Society for the Promotion of  
Science  
4-97 to 3-02: Part-time Lecturer, Department of Psychology, Tezukayama  
University

### Research Focus:

I am interested in learning and cognition. Especially, I am interested in how human and non-human animals represent external stimuli in order to adapt to the environment. To answer this question, I investigate how taste stimuli are encoded. All animals, including humans, use taste cues to guide foraging. I examined the structure of taste representations in my masters thesis using the conditioned taste aversion paradigm. For example, rats under sodium deprivation demonstrated enhanced conditioned sodium aversion (Sawa, Nakajima, & Imada, 1999). It is known that rats under sodium deprivation show more palatable reactivity to NaCl solution than rats with unrestricted access to sodium. This suggests that hedonic value of taste representation plays an important role in learning. For my doctoral thesis, I extended these findings using several learning phenomena in classical conditioning,

such as latent inhibition, blocking, and conditioned flavor preference. These experiments revealed that the hedonic value of taste stimuli are affected by the expectation of visceral sensation and modulate of salience of taste stimuli in learning.

**Courses:**

*Chukyo University*

Laboratory Training of Experimental Psychology

*Koshien University*

Laboratory Training of Experimental Psychology

*Tezukayama University*

Laboratory Training of Experimental Psychology

**Memberships in professional societies:**

The Japanese Psychological Association

The Japanese Society for Animal Psychology

The Japanese Psychonomic Society

**Species worked with**

Domestic rat: *Rattus norvegicus*

House musk shrew: *Suncus murinus*

Pigeon: *Columba livia*

**Publications:**

Yamamoto, T., Sawa, K., & Sakai, N. (1996). C-fos expression in the brain stem of the rat following gustatory and visceral stimulation of various chemicals. *Japanese Journal of Physiology*, 46 suppl., s157.

Sawa, K., Nakajima, S. & Imada, H. (1999). Facilitation of sodium aversion learning in sodium-deprived rats. *Learning and Motivation*, 30, 281-295.

Yamamoto, T. & Sawa, K. (2000). c-Fos like immunoreactivity in the brain stem following gastric loads of various chemical solutions in rats. *Brain Research*, 866, 139-143.

Yamamoto, T. & Sawa, K. (2000). Comparison of c-Fos like immunoreactivity in the brainstem following intraoral and intragastric infusions of chemical solutions in rats. *Brain Research*, 866, 144-151.

Sawa, K. & Nakajima, S. (2001). Reintegration of stimuli after acquired distinctiveness

training. *Learning & Motivation*. 32, 100-114.

Sawa, K. & Nakajima, S. (2002). Acquired equivalence of flavour cues with a common antecedent in rats. *Behavioural Processes*, 57, 1-6.

Sawa, K., Nakajima, S. & Imada, H. Effects of sodium deprivation on acquisition and expression of conditioned preference for flavor paired with sodium chloride. Submitted for publication.

Sawa, K., Nakajima, S. & Imada, H. Sodium hunger, latent inhibition, and contexts in sodium aversion learning. In preparation.

Sawa, K. & Ishii, K. Conditioned flavor preference and US postexposure effect in house musk shrew (*Suncus murinus*). In preparation.

**Papers presented, coauthored, or sponsored at professional meetings with a published abstract:**

Sawa, K., Nakajima, S. & Imada, H. Effects of sodium deprivation on latent inhibition of sodium aversion learning in rats. Poster presented at Australian Learning Group Conference (Magnetic Island, Australia, 2001/8)

Sawa, K. Conditioned flavor preference in house musk shrew. Poster presented at XIV Congress of the Spanish Society of Comparative Psychology. International Meeting. (Sevilla, 2002/9).