

## GS91 WHAT CAN OVER 5,000,000 BUBBLES TELL US ABOUT FACE RECOGNITION?

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In 2001, we have added the Bubbles technique to the toolbox of the psychophysicist (Gosselin & Schyns, 2001). This technique allows researchers to reduce real-world stimuli to their response-triggering information. Since then, we have pruned hundreds of thousands of scenes, letters, words, and, especially, faces, for several types of responses and in a multitude of search spaces (see Gosselin & Schyns, 2005, for an overview). We believe that the time has come to take a bird's eye view of the face-recognition experiments carried out by our collaborators and ourselves using the Bubbles technique. Here, we will present the results of a meta-analysis performed on all published data (Gosselin & Schyns, 2001; Schyns, Bonnar & Gosselin, 2002; Schyns et al., 2003; Smith, Gosselin & Schyns, 2004; Vinette, Gosselin & Schyns, 2004; Adolphs et al., 2005; Gosselin & Schyns, 2005; Smith, Cottrell, Gosselin & Schyns, 2005; Caldara et al., in press; Gibson et al., in press) as well as a lot of yet unpublished data. So, what have we learned by putting millions of "bubbles" on faces? You will have to attend to our presentation if you want to know.

"bird's eye view" is an idiom these shouldn't really be used.

when writing things like "this" OR "since then" be careful that what "this or "then" is referring to is clear.



## WHEN MIMICRY MAKES IT WORSE

*University of Nijmegen, <sup>2</sup>University of California,*

*Santa Barbara* – People constantly mimic each other's postures, behaviors, facial expressions, and a lot more. This has positive consequences for us. Concerning facial mimicry, Stel and Vonk (under review) showed that facial mimicry results in more perspective taking, emotional contagion, liking and more felt understanding, similarity, and closeness for the target. But what happens when we dislike someone? Mimicry enhances similarity and closeness, which we supposedly would like to avoid. So do we still mimic this disliked person, although mimicry is such an automatic process? And if we do mimic, does mimicry has the same consequences compared with mimicking people you like? In our first study we manipulated liking in order to investigate its effect on mimicry. The results confirm our hypothesis; people mimicked facial expressions more when they liked the person than when they disliked this same person. But what happens if we actually have to mimic this disliked person? Does mimicry has the same consequences for disliked people? Former studies all showed that mimicry enhances liking. However, we expect that mimicry influences liking negatively when the person is disliked. In a second study liking and mimicry were manipulated. To measure liking, participants engaged in a virtual shooting game, in which one of the opponents was the same person they mimicked or not mimicked before (which participants were not consciously aware of). Our hypotheses were confirmed; Mimicry enhances liking, except when the person being mimicked is disliked. So when you dislike someone, mimicking this person makes it even worse.

"this is a goos first sentence" but is too informal for a paper but is okay for a conference abstract.

"don't violate reader's expectations"

"be consistent with active and passive construction"



"generally, everything you present before the work should be past tense" e.g. the aim of the study was...

# A Comparison Of Strategies For Estimating Bootstrap Confidence Intervals In PCA

The bootstrap methodology can be used to estimate confidence intervals (CI's) for the estimated parameters in a Principal Component Analysis (PCA). First, an overview of possible strategies for bootstrapping in the simple case of PCA of scores obtained from independent observations is offered. Attention is paid to the resampling scheme, methods for estimating the CI's, and possible non-uniqueness of the estimated parameters. The quality of the estimated confidence intervals using various bootstrap versions is examined in a comparative simulation study. The bootstrap version using non-parametric resampling and the bias-corrected and accelerated method appears most recommendable in practice. Second, approaches towards bootstrapping in the more complicated case of functional PCA, where the successive observations are dependent, are discussed.

writing is in "  
is offered" is  
not good  
writing.





## GS52 SPATIAL RELATIONSHIP BETWEEN BOLD AND INTRACRANIAL EEG IN THE SAME HUMAN SUBJECTS

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Cognitive neuroscience relies on two major sets of techniques to map the neural networks underlying cognition in humans, recording either regional metabolic changes (as with fMRI or PET) or fluctuations of the neural electromagnetic fields (as with EEG and MEG). Despite recent major advances, there is still no explicit bridge between them and the neuroimaging community is still confronted with two complementary but unrelated sets of descriptions of the working human brain. Yet, an explicit framework linking those approaches would prove essential for their fusion into fine grained spatio-temporal human brain mapping procedures. Although recent animal studies have been enlightening, this general question must in fine be answered in the context of human functional imaging, in potentially complex cognitive tasks and in a variety of brain regions. We combined fMRI and intra-cranial EEG recordings of the same epileptic patients during a semantic decision task and found a close spatial correspondence between task-induced high frequency ( $> 40$  Hz) EEG activations and BOLD activation clusters.



**SSI007 SLEEP AND HIPPOCAMPALLY-MEDIATED MEMORY:  
SLEEP-DEPENDENT RESISTANCE TO INTERFERENCE (SDRI)**

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There is considerable evidence that sleep improves implicit memory consolidation in humans. However, the role of sleep in declarative (hippocampally-mediated) memory remains controversial. The purpose of this study is to clarify whether, and in what manner, sleep affects declarative memory. In two experiments, participants learned word pairs, then were tested after a 12-hour retention period that either included sleep or consisted entirely of wakefulness: experiment 1 assessed cued recall after the delay; experiment 2 assessed the resilience of such memories to retroactive interference after the delay. Results demonstrate two significant findings: a benefit of sleep, when compared to wake, for cued recall of word pairs; and a robust benefit of sleep in preventing interference. We conclude that sleep benefits declarative memory consolidation, rendering memories resistant to subsequent interference. These findings have broad implications for understanding the processes of memory, the purpose of sleep, and their relationship.

"perfect" example of  
hour glass format  
and is generally  
very good but has  
some stylistic  
issues/minor errors

**ALTERNATIVES AND EVALUATION: RELEVANT TO PROSPECT,  
BUT NOT TO EXPERIENCE?** *Kristian O. R. Myrseth<sup>1</sup>, Carey K.  
Morewedge<sup>2</sup>, Daniel T. Gilbert<sup>2</sup>; <sup>1</sup>Graduate School of Business, University of  
Chicago, <sup>2</sup>Harvard University* – Participants were informed that they  
would be evaluating potato chips. Forecasters rated how much they  
would like chips, whereas experiencers who ate chips rated how much  
they liked chips. Forecasters and experiencers rated chips in the presence  
of either better or worse foods. Forecasters were influenced by context:  
participants who made forecasts in the presence of better foods gave the  
chips lower ratings than did participants who made forecasts in the pres-  
ence of worse foods. Experiencers were not influenced by context: partic-  
ipants who ate chips in the presence of better foods gave the chips the  
same ratings as did participants who ate chips in the presence of worse  
foods. The results suggest that forecasters overweight the effect of possi-  
ble alternatives on their subsequent experiences.