

一、請閱讀以下材料之後回答問題 50%

ABSTRACT

Recent research in the field of embodied cognition has found that temperature can prime subjects' emotions concerning social inclusion, so that physical warmth and coldness trigger feelings of social warmth and rejection, respectively. The aim of this study ($N = 90$) was to determine whether brief tactile (****) and visual stimuli, involving hot or cold temperatures, would affect subjects' self-reported levels of loneliness (註1) after they viewed a subsequent video clip depicting ostracism (****). An ANOVA (註2) analysis was used. It was found that the cold tactile, and cold visual combined (visual plus tactile) conditions were found to increase the subjects' reported loneliness, compared to warm tactile and warm visual combined conditions; the effect size was medium (註3). Visual warmth versus cold had no significant effect on loneliness(註4), however. These data replicate the finding by Bargh and Shalev (2012) that a warm stimulus can reduce loneliness, in accordance with the general theory of embodied cognition, but suggest that the stimulus must be tactile rather than visual (註5).

RESEARCH MOTIVATIONS

Metaphors are often used in everyday life to express human thoughts and feelings. Those terms that involve temperature (e.g., a cold hearted person or chilly stare) consistently associate coldness with negative judgments, whereas warmth usually refers to positive feelings (e.g., a warm relationship or hot date). Asch (1946) first suggested that there is a direct relationship between the ideas of physical and psychological warmth, by showing that when subjects were given lists of the same seven traits to describe a person, except with 'warm' in one condition replaced by 'cold' in the other, those who read the 'warm' label associated the target individual with more positive characteristics than those who read the 'cold' label.

It is argued that this association is built via cognitive scaffolding, meaning that from an early age pre-existing tactile information from the environment is used as the basis to help form conceptual knowledge (Ackerman, Nocera, & Bargh, 2010). As young children we easily learn the simple concept that warmth or closeness are good, and cold or distance are bad. Then, as we develop, the more abstract concepts encountered are harder to process (as in complex social relations), and thus are built upon the more concrete primary or foundational concept (Williams, Huang, & Bargh, 2009). This ontogenetic scaffolding can be intentional, yet is largely automatic. The physical environment is a strong foundational concept from which we gain information about interpersonal relationships. Williams et al. (2009) propose that as we build on our knowledge of temperature to better understand social relations these cognitions become associated, so that we come to use warmth and cold as metaphors. When we have a good

relationship with an individual we describe them as 'warm' and the relationship as 'close', whereas a disliked individual is seen as 'cold'.

Williams and Bargh (2008) showed that when given the option of a reward either for themselves or for a friend, subjects who were exposed to warm tactile stimuli chose the gift for a friend 54% of the time. Conversely, when exposed to cold tactile stimuli they chose a reward for themselves 75% of the time. This research, and the data of Eisenberger, Lieberman, and Williams (2003), suggest that there is a stronger relationship between physical and psychological cold than between physical and psychological warmth.

PARTICIPANTS

The subjects were 90 unpaid university students (47 females and 43 males) living in a campus residence.

PRECEDURE

Each participant was randomly assigned to one of 6 groups: cold or warm visual, cold or warm tactile, and cold or warm combined conditions $n = 15$.

Participants were then walked from the waiting rooms to the room used for testing. Depending on their condition, participants held (in tactile) a cold thermos flask (for cold group), a warm thermos (for warm group) or a thermos at room temperature (for control group).

In the tested room. They were showed visually on the computer screen a picture of an iceberg in the ocean, (for cold group), a picture of a burning fireplace (for warm group), or a picture of a black and white tree (for control group).

RESULTS

Table 1

<u>Prime Temperature</u>	<u>Modality</u>	<u>M</u>	<u>SD</u>
Warm	Visual	40.73	7.27
	Tactile	37.73	11.32
	Combined	38.06	11.48
Cold	Visual	41.60	8.09
	Tactile	44.20	12.04
	Combined	44.33	10.94

請注意閱讀材料中的(註1)(註2)(註3)(註4)(註5)乃為以下之題目出處

1. 關於 (註 1), 18%

(1) 請根據研究主旨, 設計一個迷你 4 題完整的李克特式量表。6%

(2) 請你想像這是一個有信度的量表, 請根據此量表所測量的構念, 提供兩個好的信度係數並解釋其在此量表上之有效性(是的, 不要懷疑, 是在問有效性的意涵)。6%

(3) 同樣的, 這是一個有效的量表, 請根據此量表所測量的構念, 提供兩個好的效度狀況並解釋其在此量表上之有效性的意涵。6%

2. 關於 (註 2), 8%

(1) 根據研究設計以及研究結果表 1, 可知這是幾個因子的 ANOVA 設計?

() 因子, 其內涵為: _____ 一般的表達法為: _____ 3%

(2) 今有一受試者被分派到 Temperature-warm, Modality-tactile 的組中, 其分數為 50, 請根據 ANOVA 結構模式(線性相加模式), 寫出此分數如何從總平均以及各效果組合而成。5%

3. 關於 (註 3), 6%

(1) 請寫出該差異的效果量(effect size)之計算過程以及結果數值。3%

(2) 請解釋此效果量的內容以及大小。3%

4. 關於 (註 4), 6%

(1) 請以 t 考驗計算出此結果, 注意各細格人數, 寫出計算過程與數值。3%

(2) 請根據 t 值自由度, 以及註 4 所描述的研究結果, 估計其顯著性為何?

(請寫出一般的表達方式包括 alpha level, 自由度, 以及數值) 3%

5. 關於(註 5), 12%

(1)請將此句話以中文重述” a warm stimulus can reduce loneliness, in accordance with the general theory of embodied cognition, but suggest that the stimulus must be tactile rather than visual” 。3%

(2)請畫出表 1 的交互作用圖。3%

(3)請根據圖的狀況, 說出(1)所描述的結果如何呈現在圖中。3%

(4)請使用中文, 給這個研究一個適合的題目。3%

二、某大專院校的心理諮商中心要改善學生預約個別諮商的程序, 想要選擇一份可以輔助初談評估的心理測驗, 請據此回答下列問題。

1. 從初談評估的目的來選擇此心理測驗, 請說明優先考量的 3 項原則(15%)。

2. 請推薦一個合適的心理測驗, 簡要介紹此心理測驗的相關資訊(5%), 並具體說明此心理測驗合適的理由(10%)。

3. 承前所述, 以初談評估的目的與功能來看, 請列舉此心理測驗應該具備的 2 種信度或效度的資訊, 並說明理由(10%)。

4. 由諮商中的測驗倫理加以考量, 請擬出一段說明文字(250 字以內), 讓預約的學生在進行心理測驗之前閱讀(10%)。