

Does Nurturing Mindset Play a Role in Environmental Decision Making?

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Abstract

A nurturing prime was evaluated for its effect on environmental decision making. Seventy-one percent of all participants selected the sustainable option. The nurturing prime did not increase the selection of the sustainable option; however, those with stronger nurturing feelings were more likely to select it and more often cited “comfort,” not “environmental sustainability,” as the deciding factor. Participants who picked the neutral option were more likely to report “inconvenience” and “construction time” as their motive.

Introduction

Many North Americans express concerns for the environment; however, this attitude rarely translates into environmentally preservative actions (Thomson & Barton, 1994; Hobson, 2003; McKibben, 2010). Psychological barriers to engaging in environmentally sustainable behaviors include an inability to consider future consequences, the presences of current and conflicting goals or values, an indifference to the environment; or perceived or financial risks (Gifford, 2011). Thomson and Barton (1994) have suggested that people may not act sustainably if they have to sacrifice convenience, comfort, or money. Studies have suggested that nurturing mindsets and concern for the wellbeing of future generations are responsible for the higher incidence of sustainable attitudes and behaviors in some people. For example, the “motherhood mentality model” posits that women are more likely than men to feel protective over the environment because they are socialized to be caregivers and to feel nurturing towards others, while men are socialized to be dominant over the environment due to competition and concern for material gain (Mohai, 1992; Blocker & Eckberg, 1997; McCright, 2010). There is little empirical research supporting such theories. Thus, the goal of this study was to examine whether evoking nurturing feelings using a mindset priming method would result in increased pro-environmental behavior.

Hypotheses

- Hypothesis 1:** Participants who receive the nurturing prime will report higher feelings of nurturance
- Hypothesis 2:** Feelings of nurturance will motivate participants to choose the sustainable plaza
- Hypothesis 3:** Participants who choose the sustainable plaza will be more likely to cite *environmental sustainability* as the most important factor for their decision
- Hypothesis 4:** Participants who choose the neutral plaza will be more likely to claim *construction time* and *inconvenience* as the reasons for their decision

Methods

1. Nurturing Type Scale (NTS-I) – Pre-Test - to measure nurturance as a state. An original scale based on the *Profile of Mood States-BV* (Shacham, 1983), with the addition of specific nurturing type emotional words (i.e., loving, concerned, kind, compassionate, caring, tender, sympathetic, and helpful).

2. No Prime – Participants read, imagined themselves in, and wrote about each of 5 neutral scenarios designed not to elicit emotions

2. Nurturing Prime – Participants read, imagined themselves in, and wrote about 3 scenarios designed to elicit feelings of nurturance (e.g., love, compassion, kindness, caring) interspersed with 2 no prime scenarios

3. Nurturing Type Scale (NTS-II) – Post-Test - to measure nurturance as a state

4. Measure of Sustainable Behavior

- Participants voted on choice between two hypothetical pedestrian plazas at their college:
 - Neutral Plaza** – cement and asphalt based construction. Participants were given the following description: “This plan will create a paved plaza constructed of cement and brick. It will have benches and risers for seating and multiple areas for different groups to use. Students will also be able to sit on the cement open areas. The hard surfaces will absorb and radiate heat. Architects will design the plaza to tie together the looks of the Vertical Campus and the Library. It may take approximately 6 months to construct this plaza, inconveniencing students for 6 months.”
 - Sustainable Plaza** - environmentally protective plaza. Participants were given the following description: “This plan will create a “green plaza” with grass, shrubbery, and trees. It will have benches and risers for seating. Students will also be able to sit on the grassy open spaces. The trees will create shade, help to cool the buildings, offset the effects of greenhouse gasses that cause global warming and will prevent flooding. It may take approximately 12 months to construct this plaza, which will inconvenience students for 12 months.”
- Ranked factors important in their decision-making

5. Loyola Generativity Scale (LGS) – A self-report inventory - measures concern for future generations (McAdams & de St. Aubin, 1992).

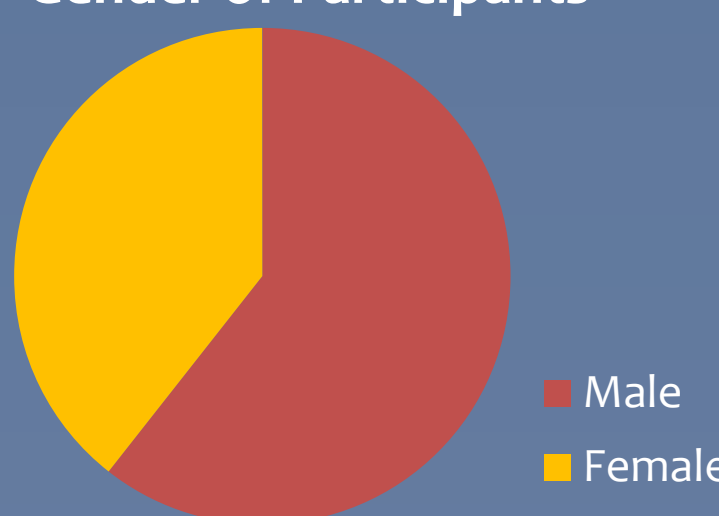
6. Nurturance Subscale of the Personality Report Form, Version E (PRF-E) – A personality inventory measuring nurturance as a trait (Jackson, 1967).

7. Demographic Questionnaire – Collected data on age, gender, ethnicity, class standing, country of origin, and comfort with English as a written, read, and spoken language.

Demographic Information

	Sample	Mean	Standard dev.	Median	Minimum	Maximum
Male	n=40	22.7 yrs	3.98 yrs	22 yrs	18 yrs	39 yrs
Female	n=26	22.46 yrs	4.14 yrs	20.5 yrs	18 yrs	39 yrs
Total	N=66	21.61 yrs	4.01 yrs	22 yrs	18 yrs	39 yrs

Gender of Participants



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Results

Hypothesis 1: Participants who receive nurturing prime will report higher feelings of nurturance

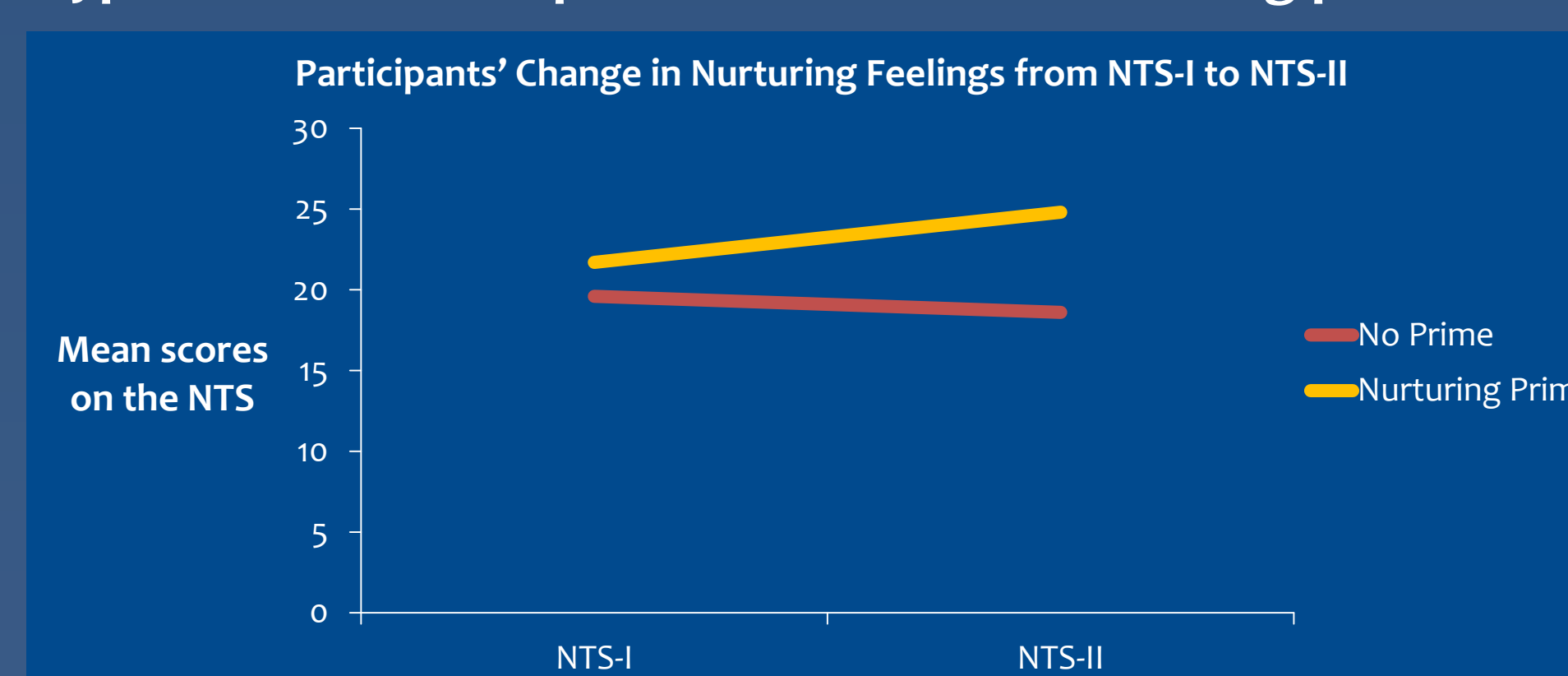


Figure 1: Nurturing prime group showed a significantly greater increase in nurturing feelings on the NTS when compared to the control group in a Mixed Design ANOVA, $F(1, 66)=14.8, p<0.001, \eta^2p=0.19$.

Hypothesis 2: Feelings of nurturance will result in choice of sustainable plaza

- In both groups, sustainable plaza was most frequently selected; 71% of all participants chose the sustainable plaza.

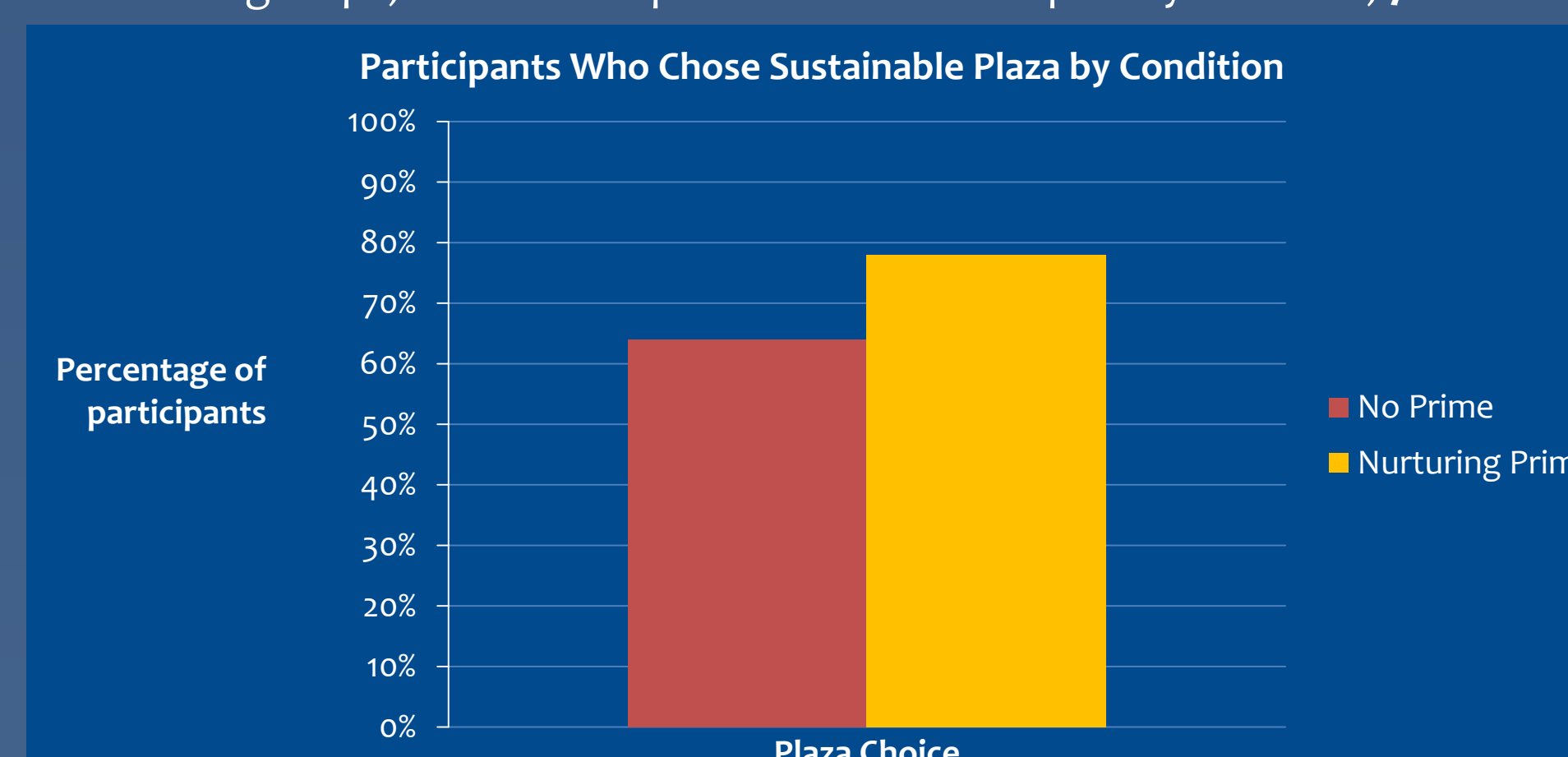


Figure 2: Percentage of participants who chose the Sustainable Plaza by Condition. Chi-square on percentages not significant $\chi^2(2, N = 67) = 4.39, p < 0.112$, but revealed a moderate effect size ($\phi = 0.26$).

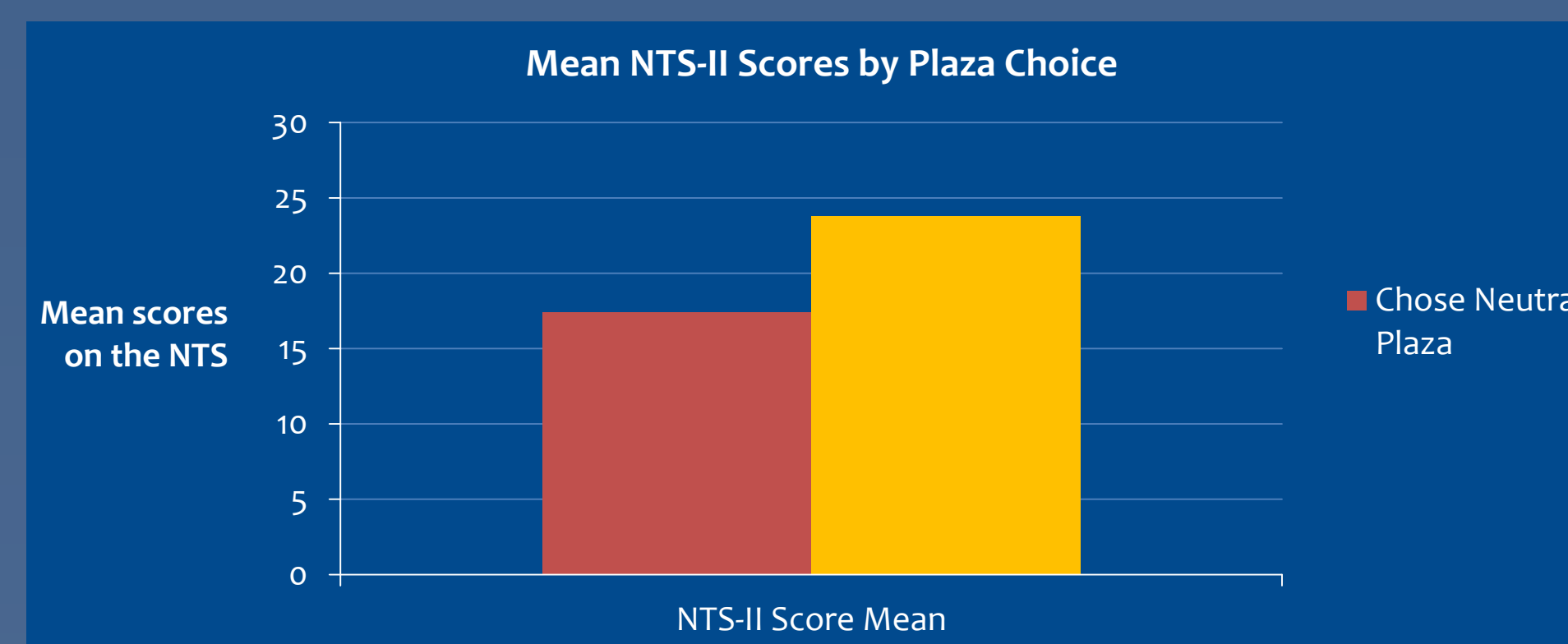


Figure 3: NTS-II Scores by Plaza Choice; $t(58) = 2.50, p = 0.01, d = .87$

Hypothesis 3: Participants who choose the sustainable plaza will cite *environmental sustainability* as the most important factor for their decision

- No significant difference on “environmental sustainability” as “very important” factor, $\chi^2(2, N=67)=5.19, p=.075, \phi=.28$
- 54% of sustainable voters rated “comfort” as important v. 13% of neutral plaza voters ($\chi^2(2, N=67)=8.34, p=.015, \phi=.35$)
- 42% of sustainable voters rated “look” as “very important” v. 7% of neutral plaza voters, $\chi^2(2, N=67)=6.47, p=.039, \phi=.31$

Hypothesis 4: Participants who choose neutral plaza will be more likely to claim *construction time* and *inconvenience* as primary reasons for decision

- 60% rated “construction time” as “very important” v. 17% of sustainable voters, $\chi^2(2, N=67)=11.54, p=.003, \phi=.42$.
- 53% rated “inconvenience” as “very important” v. 15% of sustainable voters, $\chi^2(2, N=67)=10.25, p=.005, \phi=.39$.

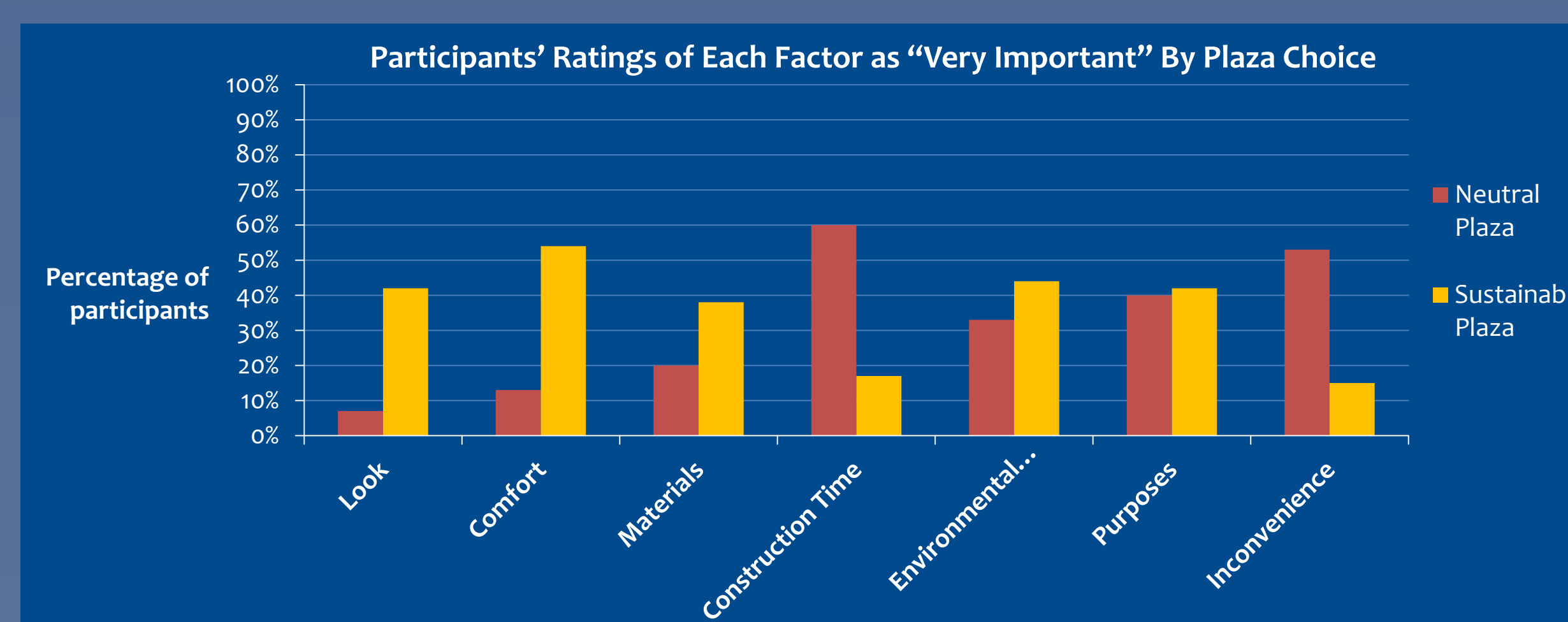


Figure 4: Percentage of participants who rated each factor as “very important”

Summary and Implications

- Nurturing prime elicited feelings of nurturance in participants who received the nurturing prime
- Participants who received the prime not more likely to choose the sustainable option
- Participants who chose the sustainable plaza, regardless of condition, had higher nurturing post-test scores
 - Shows a relationship between nurturance and making a sustainable choice
 - May be that making a sustainable choice increases feelings of nurturance
- “Comfort” cited more often than “Environmental Sustainability” as reason for choice
 - Sustainable options may be selected if they represent benefits such as comfort, rather than for the sake of environmental sustainability itself.
 - Participants seem to associate green spaces with feelings of comfort, relaxation, and positive mood.
 - Finding corroborated by finding that 42% of sustainable plaza voters rated “look” as very important factor
- “Inconvenience” and “Construction Time” were most important in non-sustainable decision
 - Personal inconvenience and negative affect acted as barriers to engaging in sustainable behavior. People who feel uncomfortable may forgo pro-environmental behavior that can potentially demand additional personal energy, effort and time.

Limitations

- Many participants who voted for the neutral plaza cited “environmental sustainability” as an important factor, despite this option not being environmentally sustainable.
- Possible that participants were either unclear as to the meaning of “environmental sustainability” or did not grasp the fact that one plaza was meant to be more sustainable than the other.

Future Directions

- Future pro-environmental strategies designed to create the least inconvenience are likely to be best supported.
- The importance of feelings of comfort, positive moods or mindsets, and the reduction of personal inconvenience on pro-environmental behaviors needs to be more thoroughly investigated.
- Given the importance of factors like “comfort” and “look” a future study might show participants what the neutral and sustainable plazas would look like, rather than describing them.
- Scientists and the media should address the emotional and personal factors involved in the hurdles humans must overcome to begin protecting the environment and the natural resources on which all life depends.