SUPPLEMENTARY METHODS AND RESULTS

Video Scene Details

A more detailed description of the proprietary video cues is included in this supplementary material as this level of detail was outside of the scope of the main manuscript. The videos used for the water and IQOS cues were created by a pre-professional videographer from the University of Chicago. Along with lab staff members, the videographer was able to create 2 identical videos depicting 3 actors using bottled water or IQOS.

The majority of scenes depicted one actor, though several scenes involved 2- and 3-person interactions (Table S1). A diverse group of actors (black male, Asian female, white female) were selected to help ensure that the demographics in the video were somewhat representative of the study sample. The solitary scenes consisted of an individual using or holding the product while appearing to walk, sit, or drive a vehicle, and engage in reading, concentrating, daydreaming, or listening to music on earphones. The 2- and 3-person interaction scenes showed the individuals engaging in generally pleasant back-and-forth. A series of nondescript locations, where one might naturally encounter people people using a tobacco product or drinking water, were selected to serve as settings for the shoot.

The videos were filmed on 2 partly sunny days in May 2019 to avoid differences in background weather. Scene types were also selected with reference to how many individuals were in the frame, how tight the framing would be to the person(s), and who in the scene would be using the product (Table S2). For each of these scenes, the goal was to capture a hand-to-mouth movement while showing the person using it. Scene types were designed to capture ordinary use as would be typical in naturalistic settings as opposed to shots specifically highlighting product features or its use. The IQOS was used in the video in a conventional manner with it held between thumb and fingers and inhaled in a motion similar to smoking. The bottled water was used in the standard method of holding it in hand between thumb and fingers with hand-to-mouth motions for ingestion. To ensure that all scenes were identical with the exception of product used, they were filmed on the same day, one after another (eg, a scene with IQOS was filmed and then the same scene with bottled water was filmed immediately after, and visa-versa).

Videography Specifications

The video was shot with a Sony A7S camera with a E-mount FE i.8 50mm lens. The camera was mounted on a Ikan 7" articulating arm to stabilixe the camera. The camera settings were consistent from scene to scene with the exception of aperature, which was recalibrated to maintain good exposure depending on how the environment was lit. The shutter speed was set to 1/125, the ISO was set to 100, the white balance was set to automatic, and the stabilizer's motor was set to a power level of medium ("M").

GEE Results

For the main study measures, the IQOS (vs water) cue produced significant increases in BQSU smoking urge and desire for a cigarette, a mod/vape pen, and a JUUL (main effects of group, all ps < .05). As expected, the water (vs IQOS) cue elicited a greater desire for water (group, p = .04). Table S3 displays full GEE results.

Smoking Choice Reasons

Table S4 describes reasons for choosing to smoke during the Smoking Lapse Paradigm among those who chose to smoke within the 50-minute timeframe. Participants were able to express agreement with all or none of the provided reasons (eg, they were not limited to agreeing with one response option).

SUPPLEMENTARY TABLES

Table S1: Number of one-, 2-, and 3-person scenes by setting location in the active and control video. Actors appeared in scenes either alone, with one other person, or 2 other people. Setting locations included indoor scenes (31%) and outdoor scenes (69%).

Table S2: Displayed hand-to-mouth movement by actor race/gender and type of shot. Scenes were broken down by different types of shots. The camera captured the actors using the product through a wide shot, close-up shot, work/study shot (actor seen reading or looking at a computer), or a social shot (2 or 3 actors appearing to have a neutral conversation).

Table S3. GEE results on urge and desire change scores.
Main effect and interactions results for BQSU smoking urge and desire for a cigarette, mod/vape pen, JUUL, and water.

Table S4: Reasons for choosing to smoke in latency task of the Smoking Lapse Paradigm. Agreement was rated on a one to 7 scale, with higher values indicating higher levels of agreement.

Table S1
Scenes by Indoor and Outdoor Setting Types and One-, 2-, and 3-Person Scenes (Active and Control)

	One-person	2-person	3-person	Total
Indoor				
Study room	7	2	0	9 (31%)
Outdoor				
Lakefront	3	0	0	3 (10%)
Park	5	2	2	9 (31%)
Streetside	6	1	0	7 (35%)
Car	1	0	0	1 (3%)
Total:	**22 (76%)**	**5 (17%)**	**2 (7%)**	**29 (100%)**

Note.
Values are N (%). The IQOS and water videos were identical on the number of actors portrayed and the scene locations.

Table S2
Hand-to-Mouth Movements by Actor and Scene Shot Types

	Wide	Close-Up	Work/Study	Social	Total
Black Male	1	4	1	2	8 (30%)
Asian Female	1	5	0	1	7 (26%)
White Female	1	6	1	4	12 (44%)
	3 (11%)	15 (56%)	2 (7%)	7 (26%)	27 (100%)

Note.
Values are N (%). The IQOS and water videos were identical on the number of hand-to-mouth movements, actors, and scene shot types.

Table S3
GEE Results on Urge and Desire Change Scores

	Group		Time		Group x Time	
	Wald χ²	p	Wald χ²	p	Wald χ²	p
Smoking urge (BQSU)	6.25	.01	4.32	.04	2.27	.13
Desire for						
Cigarette	4.05	.04	27.02	.00	1.83	.18
Mod or Vape Pen	10.32	.00	0.00	.99	1.09	.30
JUUL	6.93	.01	0.03	.86	0.47	.50
Water	4.19	.04	1.70	.19	3.60	.06

Note.
Data are Wald χ² and p-value for GEE tests for group, time and their interactions on the main outcomes. All analyses included baseline score as a covariate.

Table S4
Participants' Reasons for Choosing to Smoke During Latency Portion of the Smoking Lapse Paradigm

	Percent Agreement
I wanted to smoke	94.2%
I was bored	81.2%
I wanted to feel stimulated	68.1%
I wanted to reduce tension/stress	56.5%
The money wasn't worth it	42.0%
I thought it was cool to smoke in the building	31.9%
I saw someone else smoking/vaping	18.8%

Note.
Values are shown as percentages of sample that agreed with the stated reason for lapsing. The IQOS and water groups reported similar agreement across items with the exception of "I saw someone else smoking/vaping," which was 28.9% in the IQOS group compared with 6.5% in the water group.