Speed, safety, and selling automobiles: a content analysis of television and digital advertising in 2018, 2020, and 2022

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ABSTRACT

Objective: The goal of the present study was to analyze television and digital automobile advertising to better understand the predominant themes with a focus on the extent to which speed and speeding are portrayed across different vehicle types and years.

Methods: A total of 2,938 automobile advertisements that aired on television or appeared in digital or social media in 2018 (n = 539), 2020 (n = 1,186), and 2022 (n = 1,213) were examined using content analysis. Coders were trained to identify 23 predefined advertising themes that commonly appear in automobile commercials. Each ad was coded by two independent reviewers, and results were weighted based on the amount of money spent to run these ads.

Results: Vehicle performance, which included speed, maneuverability, traction, stopping, and power, was a theme in 42.7% of automobile advertisements, and its prevalence increased over time. Speed was depicted in 16.3% of ads, while safety appeared in only 8.1%. Ads featuring speed were significantly associated with portrayals of a vehicle as exciting or fun to drive.

Conclusions: Automakers continue to emphasize speed and performance in their advertising, often at the expense of safety messaging. Given the established risks of speeding, reducing these portrayals in media could support a cultural shift toward safety.

Keywords: commercials; advertisements; speed; performance; safety; automobile

INTRODUCTION

From muscle cars and drag strips to vast highways, automobiles and the love for speed are deeply woven into American culture. The thrill of acceleration and the pursuit of power are embedded in the national identity, influencing Hollywood blockbusters, weekend pastimes, and even highway design. But this passion comes at a cost. Despite major advancements in vehicle safety, the United States remains an outlier among high-income countries in motor vehicle crash death rates (Mack et al., 2019; Yellman & Sauber-Schatz, 2022). High speeds reduce reaction time, increase stopping distances, and amplify the force of impact, making collisions both more likely and more severe (World Health Organization, 2017). Each year, more than 300,000 people are injured, and close to 12,000 are killed in speeding-related crashes in the United States (National Center for Statistics and Analysis [NCSA], 2025). These collisions occur at all hours, on all types of roads, and involve drivers of all backgrounds. This underscores the reality that the need for speed often comes at the expense of safety. Yet, speed limits and vehicle horsepower continue to climb, and automakers capitalize on this aspect of American culture in their advertising.

Automobile advertising in the United States is largely self-regulated. The Federal Communications Commission (FCC) requires broadcasters to "operate in the public interest." As such, federal law prohibits advertising of tobacco products on any electronic medium under FCC jurisdiction, and for many years there have been voluntary restrictions on ads for alcoholic beverages. However, these regulations do not currently encompass the promotion of unsafe driving or depictions of unsafe driving. Meanwhile, in the United Kingdom, there are multiple rules prohibiting advertisements from contributing to a culture of dangerous driving, including a prohibition of motor vehicle advertisements that demonstrate power, acceleration, or handling except in the clear context of safety (Advertising Standards Authority, 2014).

Broadcasters in the U.S. develop their own standards, although they’re often open to interpretation. For example, the ViacomCBS Advertising Standards prohibit "risky behavior portrayed positively," but do not include a definition for risky behavior (ViacomCBS, 2021). The standards at ABC go a bit further, stating that "safe and lawful driving practices should be depicted at all times" (ABC Television Network, 2024). They point to wearing seat belts and avoiding distractions as examples of safe driving, but there is no mention of speed. NBCUniversal requires that advertisers "portray compliance with standard safety precautions" (NBCUniversal, 2025). Again, seat belts are mentioned but not speed or performance.

While emphasizing performance capabilities like towing capacity, ruggedness, and speediness may seem like effective sales tactics, some of these tactics may have unexpected impacts on highway safety. Although a clear link between vehicle advertising and driver behavior has not been established, research has shown that the content of electronic media can affect viewer behavior. Most such research focuses on the effects of violent content on children and adolescents, finding that violent video game use is associated with reduced prosocial behavior and increased aggression (American Psychological Association, 2020). But there is also evidence that adult attitudes and behaviors

can be affected by persuasive messages (Donovan et al., 2011; Friedman et al., 2022). This influence is not always overt and can extend beyond children, particularly in today's constantly connected environment.

The glorification of vehicle performance (i.e., speed, power, traction, and maneuverability) generally, and speed specifically, in advertising and other forms of media is not a new phenomenon (Arnold et al., 2018; Ferguson et al., 2003; Levin, 2025). An analysis of U.S. television advertising in 1998 found that performance was a theme in half of all automobile ads and was the primary theme in almost 20% of ads (Ferguson et al., 2003). Similarly, a 2005 study found a high prevalence of unsafe driving activities and a low prevalence of safety promotion in U.S. and Canadian automobile ads (Shin et al., 2005). The most recent analysis, conducted in 2017, presented similar results. Performance was a theme in 40% of light-duty automobile ads (Arnold et al., 2018).

Auto advertising is a multi-billion-dollar industry in the U.S., and it conveys messages to consumers that have the potential to impact the safety of the nation's roadways. This study adds to the current literature by assessing the content of newer advertisements, including those appearing on digital streaming and social media sites. The analysis also includes segments of the vehicle fleet that were excluded from previous analyses. Sedans and minivans have become a much smaller part of the vehicle fleet over the last 30 years and have been largely replaced by pickups and SUVs. Accordingly, an updated analysis is warranted. Using content analysis, a subset of ads from three recent years was analyzed to determine the predominant themes for different vehicle classes and how they have shifted over time.

METHODS

Automobile advertisements were obtained from Nielsen Ad Intel, a service that continually monitors major media, including TV, digital streaming, and social media platforms. Ad Intel provides detailed information on the number of units aired, advertising spend, and access to recorded creative content. This study included television ads from 2018, 2020, and 2022, and digital/social media ads (including those on Facebook, YouTube, Instagram, and TikTok) from 2020 and 2022. Digital/social media ads were not available for 2018 and therefore not included.

A similar number of ads were selected based on the number of units, or occurrences, for each year and media type. This included 539 TV ads from 2018, 640 TV ads and 546 digital/social media ads from 2020, and 593 TV ads and 620 digital/social media ads from 2022. The majority of advertisements for each year were for SUVs (including crossovers, n = 1,336) with a smaller representation of sedans (n = 546), pickups (n = 418), and vans (n = 50). An additional 588 ads showcased multiple vehicles from a manufacturer's lineup. A breakdown of ads by year, vehicle type, and advertising type can be found in Table 1. The ads were primarily for traditional internal combustion engine vehicles (n = 2,710) but did include 165 ads for electric vehicles and 63 ads for hybrid vehicles. The majority of electric vehicle ads (n = 147) aired in 2022, reflecting changes in the automotive market.

A set of 23 themes were adapted from Ferguson et al. (2003). The updated themes reflect changes in the vehicle fleet and automotive technologies over the last two decades. Updates included the introduction of advanced/automated driver assistance features and references to self-driving capabilities[1]. Examples of the themes and cues used to define each theme can be found in Table 2.

Ten coders were recruited from the Media Studies Department at the University of Virginia. Each coder participated in a three-hour training session, either in person or virtually, where the predominant themes in advertising were described in detail and example ads were shown for each theme. Participants then practiced coding ads during the training session. After training, a subset of 20 ads was sent for each participant to code independently. The coding sheets were reviewed by the study coordinator, who provided feedback to address errors and clarify theme interpretation.

Each coder was assigned a total of 600 ads, evenly distributed across years and media types. Every ad was coded by two independent coders. Coders were asked to identify a primary theme, and any secondary themes present in each ad. Any ad coded as speed/speeding, maneuverability, power, stopping, or traction was coded as a performance ad. Intercoder reliability for selecting whether a theme was present in any capacity (primary or secondary) was 85.3% and for selecting the primary theme was 40.8%. The dataset was not adjusted to resolve coding differences.

Many of the advertisements analyzed in the present study appeared in multiple forms, with only minor changes between versions. These included variations such as 15- and 30-second cuts of the same creative concept, or the inclusion of different promotional offers at the end of otherwise identical commercials. All ads with unique ad identification numbers, regardless of length or content, were coded separately. To account for differences in exposure, the prevalence of each theme was weighted by the amount of ad spend (Metsler, 2026).The use of a weighting approach allowed for a more accurate representation of the thematic content that viewers were most frequently exposed to. This methodology acknowledges that the impact of an advertisement on public perception would be closely tied to its frequency and reach. For instance, an ad promoting a high-performance vehicle with speed-focused visuals may have aired hundreds of times, making its influence far greater than a less-aired safety-focused spot. Moreover, this approach helped mitigate the potential distortion caused by advertisers' common practice of tailoring the same ad to different platforms or audience segments by making slight modifications (Carah et al., 2024). These tailored variations are designed to maintain brand consistency while optimizing engagement across varied viewer contexts (Kumar, 2016). By applying spend-based weighting, this study better captures the dominant messages conveyed in the advertising environment. The ads sampled did not represent the total ad spend, and the ad spend for 2020 was higher than that for 2018 or 2022. A logistic regression was used to assess how vehicle class and year influenced the probability that ads portrayed performance or speed. Sedan and 2018 were used as the reference, and multiline ads as well as those for vans were excluded in the model. All analyses were conducted using SAS Enterprise Guide.

[1] No vehicle currently available on the market is capable of self-driving. Drivers must always pay full attention.

RESULTS

Table 3 shows the overall use of each theme in auto advertising. The most common theme was performance (42.7%), defined as any depiction of traction (27.5%), speed/speeding (16.3%), power, stopping, or maneuverability. The next most common theme was incentives/sales (40.5%) and depictions of vehicles for families (28.1%). Comfort/convenience (24.3%), an escape (22.3%), attractive styling (21.5%), and new/different (19. 7%) were the next most common themes. Safety was highlighted in only 8.1% of ads in the dataset.

The emphasis on performance in advertisements increased substantially from 2018 (38.5%) to 2022 (51.9%). Speed/speeding and traction were the most common performance subthemes, and these also increased in prevalence from 2018 (13.9% and 20.0%, respectively) to 2022 (18.7% and 37.9%, respectively). Meanwhile, the prevalence of safety advertising decreased over the same period from appearing in 10.5% of ads in 2018 to only 2.9% of ads in 2022.

Table 4 shows the weighted percentage of each primary theme by year in the complete set of advertisements. Performance was the most frequent primary theme in the dataset (17.3%). Speed/speeding (4.6%), power (5.3%), and traction (6.8%) were the most common performance subthemes. Ads with incentives/sales (13.8%) and those portraying the vehicle as an escape (11.0%) were also common. Safety appeared as the primary theme in only 2.8% of advertisements, though it is possible that some depictions of safety features were coded only as advanced/automated technology. As expected, the overall themes varied across years, likely reflecting changes in the vehicle fleet as well as social and market trends over time.

Advertisements featuring performance themes were common across all vehicle classes, but to a greater extent for pickups compared with sedans and SUVs (Table 5). Performance themes were prevalent in over half of pickup ads across all years: 79.2% in 2018, 56.0% in 2020, and 85.2% in 2022 (Figure 1a). SUVs had the lowest probability of performance themes, but the probability increased from 27.5% in 2018 to 36.6% in 2020 to 44.9% in 2022. The probability of performance in ads for sedans increased from 49.0% in 2018 to 57.2% in 2020 and then decreased to 42.2% in 2022.

Depictions of speed or speeding were far more common in sedan advertisements compared with pickups and SUVs across all years (Table 6). Speed/speeding themes were found in 36.8% of sedan ads from 2018 and only 6.4% of SUV ads and 3.3% of pickup ads. In 2020 the likelihood of a speed-related theme for sedans was 46.5% compared with just 11.4% for SUV ads and 4.6% for pickup ads (Figure 1b). This pattern persisted in 2022, with sedans at 38.5%, SUVs at 17.6%, and pickups at 5.9%. Notably, ads with speed/speeding as a primary or secondary theme were also significantly correlated ($p < 0.001$) with portrayals of the vehicle as exciting/fun to drive.

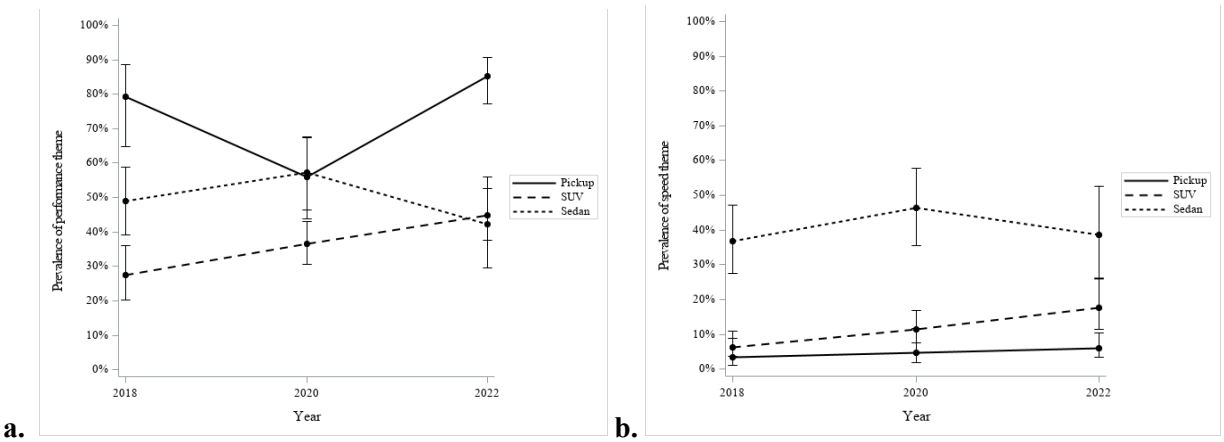

Figure 1. Logistic regression results for the probability of (a) performance and (b) speed/speeding theme in 2018, 2020, and 2022 ads for sedans, SUVs, and pickups.

Note. Error bars represent 95% CI.

DISCUSSION

The study highlights the extent to which vehicle performance, including depictions of speed, power, traction, or maneuverability, remains a dominant theme in automobile advertising (Arnold et al., 2018; Ferguson et al., 2003; Shin et al., 2005). Almost half (42.7%) of the most aired auto ads on TV, digital streaming, and social media for 2018, 2020, and 2022 featured at least one performance-related message. One sixth of ads in the dataset (16.3%) included depictions of speed or speeding despite the well-known dangers associated with such behavior (NCSA, 2024). These depictions of speed/speeding in auto ads were most frequently found in sedan ads and were associated with the vehicle being portrayed as exciting or fun to drive. These images may contribute to an unsafe driving behavior that results in nearly 12,000 traffic deaths each year in the U.S.

This study analyzed automobile advertisements not only on traditional television platforms but also across digital and social media channels, reflecting the evolving landscape of media consumption and advertising strategy, and offering a more contemporary and comprehensive view of the advertising landscape. Another notable methodological change in this study was the use of weighted averages based on the amount of ad spend, rather than treating each ad as a unique and equally weighted unit. Prior research has looked at unique ads, which has the potential to overrepresent rare or niche advertising campaigns and underrepresent those that were widely disseminated.

Coder agreement and interpretation of themes

The overall reliability of coders in this study was identical to the 85% reliability from the previous study (Ferguson et al., 2003). However, the intercoder reliability for primary theme in this study was low. While this may initially seem problematic as a potential indication of poor understanding of the themes by the coders, the authors believe that this level of agreement was not unexpected and in fact is potentially representative of what the advertisers are hoping to achieve. Viewers interpreting the same ad in slightly different ways may reflect advertisers' intent to appeal to diverse audiences. The coders were asked to pick one primary theme and as many secondary themes as they saw fit. Coders frequently saw the same themes coming through in the ads, but different individuals identified different themes as the primary theme in the ad. Automakers have 15 or 30 seconds to appeal to as many potential customers as possible. Incorporating multiple themes in one ad increases the chance that one of those themes will resonate with a viewer and helps to ensure that the ad will drive sales to a broad range of consumers.

The predominant themes of the ads analyzed in the current study are consistent with results of previous auto ad content analyses (Arnold et al., 2018; Ferguson et al., 2003; Shin et al., 2005). The prevalence of ads showcasing vehicle performance remains high while ads showcasing vehicle safety are still relatively rare. In the current study, safety was rarely coded as a theme. This could be a product of the vehicle safety landscape at the current time. Seat belts and airbags are no longer new features or selling points for vehicles; consumers assume that vehicles will have these features. Today, consumers are sold on advanced driver assistance features that will help prevent crashes from happening in the first place. Advanced/automated technology was included as a separate theme, which may have prevented coders from interpreting safety as a theme when reviewing these ads.

Impact of the COVID-19 pandemic on ad themes

This dataset notably contains data from the prepandemic (2018), pandemic (2020), and the early postpandemic (2022) eras. These eras reflect dramatic shifts in both consumer behavior and advertising strategy. In 2020 when the U.S. went on lockdown, the percent of ads featuring incentives or sales almost doubled, without a noticeable decline in other themes. These ads frequently promoted no payments for a period or 0% financing. Then in 2022, when pandemic-era restrictions had lifted, the percentage of ads depicting sales/incentives sharply declined. This occurred in conjunction with a global semiconductor chip shortage that resulted in low vehicle inventory and vehicles frequently selling for above the manufacturer's suggested retail price (J.P. Morgan, 2023). Simultaneously, after months of lockdowns when pandemic fatigue set in and people were ready to venture out, the use of performance theming in advertising almost doubled.

These shifts mirror broader trends in consumer sentiment during and after COVID-19 (Lee, 2023). While much of the nation was locked down in 2020, traffic and congestion on the nation's roadways decreased, speeding increased and motor vehicle fatalities increased (Wang & Cicchino, 2022), and (NCSA, 2022). There were an estimated 17% more people killed in traffic crashes on U.S. roads from May 2020 to December 2022 than would have been expected with prepandemic trends, and the number of drivers killed in speed-related crashes exceeded forecasts by

over 24% (AAA Foundation for Traffic Safety, 2024). These changes in driving behavior occurred at the same time the frequency of ads highlighting vehicle performance was increasing, both potentially reflecting a cultural shift towards greater normalization of risky behavior.

At the height of the pandemic in 2020, ads focusing on safety were more prevalent, although performance was still the dominant theme. As the fear subsided, another shift occurred. Automakers began to highlight that their vehicles could take people back to the open road and to the wide world that was still out there. But while some ads were showing care and compassion during a difficult time, others continued to highlight vehicle performance and speed. Thus, while the pandemic briefly changed the landscape of automobile advertising, performance- and speed-themed ads endured. The role of advertisers in influencing risky driving behaviors remains under-addressed.

Advertising influence and public attitudes toward speeding

Advertising has the potential to influence attitudes and beliefs, which can in turn shape behavior. A Scottish study found that mass media could affect changes in attitudes about speeding (Stead et al., 2019). The normalization of speeding behavior in media and on our nation's roadways has created a culture that glorifies speed and masks the American driver's sense of how risky it truly is. Almost 90% of respondents in the most recent survey of speeding attitudes and behaviors agreed or strongly agreed that everyone should obey the speed limit and over 70% agreed or strongly agreed that driving at or near the speed limit reduces the chances of a crash (Cosby et al., 2024, December). Meanwhile, 61% of those respondents classified themselves as either "speeders" or "sometimes speeders" and 91% agreed or strongly agreed that people should keep pace with the flow of traffic. Speeding does not carry the same social stigma as impaired driving and therefore is often legitimized as normal behavior.

Conclusion: rethinking speed in auto advertising

This study underscores how performance and speed remain dominant themes in vehicle advertising despite the known dangers of high-speed driving. To begin to shift the American culture around speed, broadcasters and automakers must treat unsafe speed the same way they would treat drunk driving or failure to use a seat belt and stop showing this behavior in a positive light. Year after year, automakers make improvements to their vehicles as the criteria for safety awards are strengthened. Today's vehicles are more reliable, more efficient, more comfortable and safer than ever before. By redirecting focus toward innovations in vehicle safety instead of glamorizing risky driving behavior, advertisers could help foster a culture of safety and reduce risky driving behaviors.

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TABLES

Table 1. Number of ads for each vehicle type by year and ad type.

Vehicle type	2018 TV	2020 Digital	2020 TV	2022 Digital	2022 TV	Total
SUV	252	204	311	282	287	1,336
Pickup	94	37	87	105	95	418
Sedan	130	130	103	88	95	546
Van	18	2	4	23	3	50
Multiline	45	173	135	122	113	588
Total	539	546	640	620	593	2,938

Table 2. Themes and examples of cues used to identify themes.

Theme	Example cues
Performance	Any ad displaying speed, maneuverability, traction, or power.
Speed/speeding	Portrayal of vehicle moving at an excessive speed (relative to surroundings or weather/lighting conditions); rapid acceleration; vehicle cornering at speed, racing, any glamorization of speed.
Maneuverability	Claims of turning radius.
Traction	Depictions of the vehicle driving in adverse weather conditions or slippery/uneven terrain.
Power	Claims of horsepower, vehicle towing something large (trailer, boat, RV), Car and Driver award winner.
Stopping	Depictions of the vehicle stopping quickly.
Comfort/convenience	Interior shots of vehicle emphasizing spaciousness; cozy seating; demonstrations of ease of entry/exit; statistics about leg room, head room, cargo space.
Incentives/sales	Incentives or promotions are directly mentioned.
Economy/good value	MPG statistics, operating expense, claims of low price or number of features at low price.
New/different	Statements about a model being new, changed for the better, or different/unique from other vehicles.
Quality, reliability, durability	Claims of quality (sturdiness), demonstrations of fit and finish, statistics like problems per 100 vehicles, parts testing, high-tech manufacturing, J.D. Power award winner.
Attractive styling	Depiction or mention of attractive appearance, characters admiring the appearance or fixating upon the exterior of the vehicle (NOT the coder's judgment of attractiveness and not talking about the attractiveness of the actor).
Luxury/prestige	Displaying wealthy people or settings; well-dressed people, jewelry, the arts, fancy restaurants, mansions; direct mentions of "luxury."
An escape	The vehicle is used as a means of escaping the ordinary world. Locking oneself in the vehicle to avoid bother. Driving the vehicle to remote location to get away.
Advanced/automated technology	Claims or depictions of advanced driver assistance features (automatic emergency braking, lane departure prevention, blind spot monitoring, pedestrian detection/avoidance, adaptive cruise control).
Safety	Direct claims of safety, crash testing, accident avoidance through braking, steering or traction systems, airbag mentioned as equipment, airbag deployment or images of a crash with safe outcome, mention of being an IIHS award winner.
Self-driving [1]	Depictions of driver with hands off the wheel; claims of automated features marketed as self-driving.
Heritage	National heritage, such as American historical icons (4th of July, flags, Statue of Liberty, etc.) shown. Nostalgic images of vehicle brand. Nostalgic images of people and times.
Customer experience	Claims or demonstrations of satisfied customers. Customer satisfaction statistics, owner loyalty statistics, demonstrations of positive experiences in the dealership.
For families	Use of actors displaying traditional family situations either within the vehicle or outside the vehicle. Children must be present.
Exciting/fun to drive	Direct claims of fun or excitement; the experience of driving the vehicle is pleasurable; expressions of joy or exhilaration on the faces of actors.
Best-selling/most popular	Direct claim of being number 1 in sales.
For younger people	Younger actors in 20s, single, dating, entertaining, active.
Other	Any content not coded above.

Note. RV = recreational vehicle; MPG = miles per gallon.

[1] No vehicle currently available on the market is capable of self-driving. Drivers must always pay full attention.

Table 3. Overall prevalence of each theme in advertising.

Theme	2018	2020	2022	Total
Weighted N	*1.8 billion*	*5.0 billion*	*2.7 billion*	*9.5 billion*
Performance	38.5%	39.3%	51.9%	42.7%
Speed/speeding	13.9%	15.8%	18.7%	16.3%
Maneuverability	3.8%	3.1%	2.8%	3.2%
Traction	20.0%	24.8%	37.9%	27.5%
Power	14.9%	11.7%	18.3%	14.2%
Stopping	0.8%	1.3%	0.7%	1.1%
Comfort/convenience	22.5%	22.1%	29.8%	24.3%
Incentives/sales	28.7%	53.7%	23.8%	40.5%
Economy/good value	9.2%	8.3%	7.4%	8.2%
New/different	17.5%	17.1%	26.2%	19.7%
Quality, reliability, durability	18.7%	15.0%	12.8%	15.1%
Attractive styling	21.1%	20.2%	24.2%	21.5%
Luxury/prestige	9.4%	11.6%	18.5%	13.1%
An escape	17.9%	23.5%	22.9%	22.3%
Advanced/automated technology	13.6%	14.5%	12.2%	13.7%
Safety	10.5%	9.9%	2.9%	8.1%
Self-driving	0.2%	1.2%	0.3%	0.8%
Heritage	4.7%	8.4%	7.0%	7.3%
Customer experience	5.7%	13.9%	6.6%	10.3%
For families	17.1%	31.3%	29.6%	28.1%
Exciting/fun to drive	9.9%	18.4%	17.3%	16.4%
Best-selling/most popular	3.9%	4.1%	3.2%	3.8%
For younger people	4.7%	10.9%	9.3%	9.2%
Other	5.3%	5.1%	5.4%	5.2%

Note. Weighted percentage based on the spending for each ad. Ads represent a sample of the total population for each year and do not include the total ad spend for that year.

Table 4. Weighted percentage for the primary theme of each ad.

Primary theme	**2018**	**2020**	**2022**	**Total**
Weighted N	*1.8 billion*	*5.0 billion*	*2.7 billion*	*9.5 billion*
Performance	16.8%	12.4%	26.8%	17.3%
Speed/speeding	5.9%	3.6%	5.7%	4.6%
Maneuverability	1.2%	0.5%	0.3%	0.6%
Traction	3.2%	4.5%	13.5%	6.8%
Power	6.5%	3.7%	7.4%	5.3%
Stopping	0.1%	0.0%	0.1%	0.1%
Comfort/convenience	5.4%	4.0%	3.4%	4.1%
Incentives/sales	14.1%	18.4%	4.9%	13.8%
Economy/good value	3.2%	2.4%	2.2%	2.5%
New/different	3.3%	2.2%	5.2%	3.3%
Quality, reliability, durability	6.6%	5.0%	5.1%	5.3%
Attractive styling	6.0%	3.2%	7.7%	5.0%
Luxury/prestige	3.4%	4.0%	7.1%	4.7%
An escape	11.6%	11.5%	9.8%	11.0%
Advanced/automated technology	8.6%	7.3%	2.9%	6.3%
Safety	2.3%	3.9%	1.0%	2.8%
Self-driving	0.1%	0.1%	0.1%	0.1%
Heritage	1.6%	2.5%	3.9%	2.7%
Customer experience	2.3%	7.0%	2.0%	4.7%
For families	4.9%	8.6%	9.0%	8.0%
Exciting/fun to drive	3.1%	3.5%	2.9%	3.3%
Best-selling/most popular	1.1%	0.7%	1.4%	1.0%
For younger people	1.0%	1.6%	1.1%	1.3%
Other	4.1%	1.2%	3.8%	2.5%

Note. Weighted percentage based on the spending for each ad. Ads represent a sample of the total population for each year and do not include the total ad spend for that year.

Table 5. Prevalence of performance theme by year and vehicle class.

					p values for two-way comparisons			
Year	**Class**	**Prevalence**	**Lower CL**	**Upper CL**	**vs. 2018**	**vs. 2020**	**vs. Sedan**	**vs. SUV**
2018	Sedan	49.0%	39.1%	58.9%				
2020	Sedan	57.2%	46.4%	67.3%	0.2711			
2022	Sedan	42.2%	29.6%	56.0%	0.4368	0.0927		
2018	SUV	27.5%	20.3%	36.1%			0.0013	
2020	SUV	36.6%	30.6%	43.0%	0.0887		0.0012	
2022	SUV	44.9%	37.5%	52.5%	0.0029	0.0964	0.7371	
2018	Pickup	79.2%	64.8%	88.7%			0.0011	<.0001
2020	Pickup	56.0%	43.7%	67.5%	0.0143		0.8782	0.0058
2022	Pickup	85.2%	77.3%	90.7%	0.3629	<.0001	<.0001	<.0001

Note. Prevalence estimates and *p* values derived from the weighted logistic regression. CL denotes 95% confidence limits.

Table 6. Prevalence of speed/speeding theme by year and vehicle class.

					p values for two-way comparisons			
Year	**Class**	**Prevalence**	**Lower CL**	**Upper CL**	**vs. 2018**	**vs. 2020**	**vs. Sedan**	**vs. SUV**
2018	Sedan	36.8%	27.5%	47.3%				
2020	Sedan	46.5%	35.5%	57.8%	0.2133			
2022	Sedan	38.5%	26.2%	52.6%	0.8411	0.3825		
2018	SUV	6.4%	3.6%	11.0%			<.0001	
2020	SUV	11.4%	7.6%	16.8%	0.0959		<.0001	
2022	SUV	17.6%	11.5%	26.1%	0.0039	0.1350	0.0054	
2018	Pickup	3.3%	1.2%	8.9%			<.0001	0.2686
2020	Pickup	4.6%	1.8%	11.6%	0.6462		<.0001	0.0804
2022	Pickup	5.9%	3.3%	10.4%	0.3271	0.6562	<.0001	0.0023

Note. Prevalence estimates and *p* values derived from the weighted logistic regression. CL denotes 95% confidence limits.

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