



Consumer arrogance: Scale development and validation



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ABSTRACT

This article provides a conceptualization of the new construct of consumer arrogance and develops and validates a measurement scale for it. It views consumer arrogance as a multi-dimensional trait reflecting the proclivity to use possessions in order to establish one's social superiority over others. The final version of the scale has four dimensions: image-based consumption, consumer bragging, exhibitionism-based purchases, and consumer feeling superior. In six studies, which include 1529 participants, both students and adults, the consumer arrogance scale demonstrates internal consistency and validity within one country (Israel), across two sub-cultures (Israeli Arabs and Jews), and across cultures (Israel and the US). The findings also support the role of consumer arrogance in explaining and predicting consumption behaviors above and beyond existing constructs.

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1. Introduction

Arrogance, the inclination to publicize one's qualities and worth over others, is a basic human trait (Lewis, 2000). While the marketing literature has long recognized that individuals use consumption-related behaviors to demonstrate their achievements and communicate their self-worth and superiority (Belk, 1988, 2011; Hirschman & LaBarbera, 1990; Kleine, Kleine, & Allen, 1995; Lee, Ko, & Megehee, 2015), an examination of how consumers use consumption behavior to project their arrogant inclinations has largely been neglected.

This research addresses this gap by introducing the concept of consumer arrogance (CA), defined as people's proclivity for demonstrating their social superiority through the acquisition, utilization, or display of consumer goods. This definition focuses on how consumption-related activities help individuals communicate their superiority. It relies on the premise that behaviors such as the acquisition, use, and explicit communication of the value of consumer goods are tools in the service of arrogant consumers' efforts to enhance their social status. This study develops a parsimonious, multi-dimensional scale to measure consumer arrogance and demonstrate its value in explaining, predicting, and understanding various consumption behaviors in different cultural settings.

2. Literature review

2.1. Conceptual origins

Early discussions of arrogance in psychology view it as a dimension of or related to narcissism (Lewis, 2000; Raskin & Terry, 1988; Verbeke, Belschak, & Bagozzi, 2004), reflecting one's feelings of superiority and beliefs about being a special person, who can be understood only by, or should be associated only with, other special or high-status individuals. Recent research views arrogance as a multi-dimensional trait, rather than as a pathology (Johnson et al., 2010; Silverman, Johnson, McConnell, & Carr, 2012). These studies show that perceivers tend to regard others as arrogant when they communicate their qualities as being superior to those of others (Hareli & Weiner, 2000; Hareli, Weiner, & Yee, 2006; Johnson et al., 2010). In other words, if individuals emphasize some unique quality and project from it the superiority of their global self, others see them as arrogant (Hayward & Hambrick, 1997; Lewis, 2000; Verbeke et al., 2004). Like pride (Chakrabarti, 1992), the sources of arrogance include things to which arrogant people feel closely related, regard as exceptional, or use to signal their superiority. However, arrogance is distinct from pride. Pride often results from a specific achievement, attribute, or pro-social behavior, whereas arrogance arises from the perception of the global self as superior to others (Tracy & Robins, 2007; Verbeke et al., 2004).

Continuous and exaggerated pronouncements about one's accomplishments accentuate perceptions that one is arrogant (Hayward & Hambrick, 1997, Lewis, 2000). Note that the validity of the communicated message is relatively unimportant to perceptions of arrogance. Once people convey such messages to others, they are

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seen as arrogant regardless of the truthfulness of the message (Hareli et al., 2006). Similarly, if people send such signals in the context of a given achievement, the importance of that achievement does not affect the extent to which others regard the achiever as arrogant (Johnson et al., 2010; Silverman et al., 2012).

2.2. Consumer arrogance – conceptual definition

The symbolic power of possessions to signal one's accomplishments and achievements provides consumers with an easy way to convey superiority and boost their self- and public images (Belk, 2011; Hirschman & LaBarbera, 1990). One might expect that the broader the range and the more frequent the use of possessions, the higher the level of perceived consumer arrogance (CA). However, the manifestation of CA depends on individuals' genuine belief that they are superior to others in terms of the acquisition and use of possessions (*consumer superiority*), regardless of its objective accuracy (Johnson et al., 2010). Individuals who score high in CA make pointed connections between the superior nature of their purchases and their global self, and direct inferences from the quality of the products to their own superior qualities (Hayward & Hambrick, 1997; Lewis, 2000; Verbeke et al., 2004). In addition, they view the products that others choose as inferior to theirs, inferring from these purchases the inferior characteristics of these other people (Lewis, 2000). This is the starting point for other CA behaviors.

The most common way people communicate their superiority and achievements is through verbal statements (Alexandrov, Lilly, & Babakus, 2013; Angelis, Bonezzi, Peluso, Rucker, & Costabile, 2012; Raskin & Terry, 1988). Examples include behaviors such as bragging about purchasing triumphs, as well as publicly comparing them to those that others have bought (*consumer bragging*). Such direct communications are central to the conceptualization of CA, because they reflect the effort individuals are willing to invest in promoting their achievements as consumers (Hayward & Hambrick, 1997; Verbeke et al., 2004).

Another verbal communication of superiority may be knowledge-based. Arrogant people might view themselves as experts in particular context (Hayward & Hambrick, 1997). In terms of consumption, arrogant individuals might perceive themselves as opinion leaders or market experts. However, while opinion leadership is domain specific rather than a global pattern of behavior (Flynn, Goldsmith, & Eastman, 1996), arrogant individuals will associate their knowledge with a broader perception of themselves as superior in all regards. Accordingly, verbal manifestations of CA may include a perceived and expressed “*I know best*” mentality compared to others in general and salespeople specifically.

Consumers can also communicate achievements and superiority non-verbally by using high status, brand-name products (*image-based consumption*) (Belk, 1988, 2011; Lee et al., 2015). Research shows that people value such goods due to their power to communicate, achieve, and restore social status (Han, Nunes, & Drèze, 2013; Kastanakis & Balabanis, 2012; Shukla & Purani, 2012). Given that high status brands have conspicuous, unique, social, hedonic, and quality values (Vigneron & Johnson, 1999), they can provide a sense of superiority and signal achievements. Thus, buying and using luxuries or expensive brands may project superiority over others.

Finally, *exhibitionism-based purchasing* can also demonstrate arrogance non-verbally. Such purchases imply that individuals engage in extravagant and conspicuous consumption to attract attention to their superior appearance and inflate their ego (Veblen, 1934). These strategies fit Riesman's (1951) view of Americans as becoming less inner- and more other-directed, leading to a need for approval from others (Vigneron & Johnson, 1999). This dimension highlights the importance of the social context of arrogance (Johnson et al., 2010).

2.3. Consumer arrogance and related constructs

Similar to arrogance, constructs such as self-promotion (Godfrey, Jones, & Lord, 1986), superiority (Raskin & Terry, 1988), vanity (Netemeyer, Burton, & Lichtenstein, 1995), and exhibitionism (Raskin & Terry, 1988) reflect the importance that people attach to their images in the eyes of others. However, they do not explicitly recognize the role of consumption in burnishing one's image as part of their definition.

Other constructs highlight the importance placed on material goods, such as materialism (Griffin, Babin, & Christensen, 2004; Richins & Dawson, 1990), consumer susceptibility to interpersonal influence (CSII) (Bearden, Netemeyer, & Teel, 1989), status consumption (Eastman, Goldsmith, & Flynn, 1999), price-prestige sensitivity (Lichtenstein, Ridgway, & Netemeyer, 1993), and hedonic shopping (Babin & Darden, 1995). However, they reflect consumption motivations that differ from superiority-based ones. For example, materialism reflects the importance individuals place on material goods as a means to achieve happiness (Richins & Dawson, 1990). CSII focuses on individuals' inclination to conform to the expectations of others with regard to purchase decisions (Bearden et al., 1989). Thus, the conceptualization of CA attempts to bridge these gaps by identifying how individuals use consumption to convey a superior social image.

Nevertheless, while CA is conceptually distinct from these constructs, it is related to most of them. Netemeyer et al.'s (1995) study provides initial support for such relationships, by establishing positive relationships between vanity and superiority, exhibitionism, price-prestige sensitivity, and status consumption. Given that superiority, exhibitionism, and vanity reflect attempts to present a favorable self-image, they should be associated positively with CA. Similarly, high-CA individuals should demonstrate strong price-prestige sensitivity, status consumption, and brand consciousness, because these behaviors provide them with methods for projecting superiority. Additionally, since high-CA individuals value other people's opinions as a means of establishing their superiority (Chakrabarti, 1992), CA should be positively related to the importance of social approval (ISA) (Fisher, 1993) and CSII (Bearden et al., 1989). The relationships between CA and these constructs will be tested as part of establishing CA's nomological validity. In sum, studies in consumer behavior investigate self-enhancement constructs but largely ignore the arrogant proclivities of consumers. This omission is unfortunate, because CA may impact consumption differently than these related constructs and may explain important individual differences in consumption-related behaviors.

3. Scale development

3.1. Study 1 - elicitation procedure, item generation, and construct formation

The first step is an open-ended elicitation procedure for generating items (Netemeyer et al., 1995) to ensure that the conceptualization of CA is consistent with the general public's view of it. A sample of 66 students from an Israeli university responded to the following question: “How do you think arrogance is expressed through buying, consuming, and using products?” The most common statements were “an arrogant person...”: “purchases only brand name products” (26); “chooses only expensive products” (19); “purchase things s/he do not really need” (12); and “shows off his/her purchases” (10). Given that the statements closely fit the conceptualization provided earlier, they can be regarded as a general view of CA.

Following the elicitation procedure, two experienced marketing researchers reviewed the items, eliminated ambiguous statements, and combined statements with identical meanings (Bearden et al., 1989), resulting a revised pool of 76 statements. Next, common CA

themes were detected along with the statements associated with them. After three iterations, five CA dimensions were identified with 40 corresponding items: image-based consumption (11 items), exhibitionism-based purchases (7 items), “I know best” mentality (9 items), consumer bragging (8 items), and consumer superiority (5 items).

3.2. Study 2 – items' purification

A sample of 130 students (out of 150 surveys, a response rate of 87%) was used to test the multi-dimensionality yet parsimonious structure of the CA construct (Steenkamp & Baumgartner, 1995). The purification phase includes several steps. A maximum likelihood exploratory factor analysis (Hair, Anderson, Tatham, & William, 1998), which extracted five factors (eigenvalues ≥ 1), reveals that 11 items cross-load on more than one factor (> 0.25 ; Hair et al., 1998) or exhibit low loadings (≤ 0.40 ; Hair et al., 1998). Thus, the authors deleted these items including three items from the image-based consumption factor (items 7, 8, and 9 in Appendix 1, loading 0.373, 0.199, and 0.296 respectively) as well as one item from consumer superiority (item 5 in Appendix 1, loading 0.260 and 0.290 on “I know best” factor), three items from consumer bragging (item 6, loading 0.354 on consumer bragging, and 0.245 on consumer superiority; item 7, loading: 0.361 on consumer bragging, and 0.285 on image-based consumption; and item 8, loading 0.269 on consumer bragging, and 0.314 on consumer superiority), and four items from the “I know best” mentality (items 5, 6, 7 loading 0.155, 0.369 and 0.294, respectively).

A maximum likelihood confirmatory factor analysis (CFA) of the remaining 29 items confirms the five dimensions identified earlier: factor 1 reflects image-based consumption (8 items; loadings: 0.57 to 0.85), factor 2 includes the exhibitionism-based purchase items (7 items; loadings: 0.51 to 0.83) and factor 3 represents consumer superiority (4 items; loadings: 0.48 to 0.63). Factors 4 and 5 reflect consumer bragging (5 items; loadings: 0.64 to 0.80) and the “I know best” mentality (5 items; loadings: 0.52 to 0.67). Table 1 presents the reliability of the new factors, which range from 0.68 (“I know best” mentality) to 0.90 (image consumption). Only the “I know best” factor falls below the recommended level of 0.70 (Nunnally, 1978). Overall, the CA factors correlate well with each other, with the exception of the “I know best” one, which exhibits relatively weak correlations with the other factors (all were lower than 0.40).

The questionnaire uses 5-point Likert scales (1 = strongly disagree to 5 = strongly agree) to measure CSII (Bearden et al., 1989), status consumption (Eastman et al., 1999), and price–prestige relationship (Lichtenstein et al., 1993) for preliminary discriminant and convergent validity checks. Utilizing Pearson correlations with SPSS (Table 1), the overall construct of CA (the mean of the 29 items) and its five factors are positively and significantly ($p < 0.05$) related to CSII, status concern, and price–prestige sensitivity, providing initial support for the criterion-related validity of the CA scale.

3.3. Study 3 – confirmation of the scale's structure

The goal of Study 3 is to confirm the structure of the 29-item CA scale. To do so, this study uses data from 132 new students (88% of the 150 surveys distributed) to test the factor structure of Study 2. A CFA yields five factors (eigenvalues ≥ 1) that explain 61% of the variance. All loadings exceed 0.40 (Hair et al., 1998) except for one item from the exhibitionism-based purchases' dimension (item 7 in Appendix A, loading 0.265) and one “I know best” item (item 9, loading 0.284). These findings support the elimination of two items from the scale.

The final CFA testing of this study includes the remaining 27 items. The findings re-confirm the five-factor structure (eigenvalues ≥ 1) with an explained variance of 66% and item loadings that exceed 0.40. All of the items are affiliated with their designated factors except for one exhibitionism-based purchases item that loaded higher on consumer bragging (“I tend to choose showy products,” loading 0.534). A re-examination of this item indicated that it might reflect a non-verbal aspect of bragging and the item was re-assigned accordingly. Factors 1 and 2 reflect image-consumption (8 items; loadings: 0.55–0.91) and exhibitionism-based purchases (6 items; loadings: 0.55–0.83). The explained variances of these factors are 20.9% and 13.0%, respectively. Factors 3 and 5 reflect consumer bragging (5 items; loadings: 0.70–0.84), the “I know best” mentality (4 items; loadings: 0.51–0.84), and consumer superiority (4 items; loadings: 0.42–0.78). The explained variances of these factors are 12.6%, 10.3%, and 8.9%, respectively.

Table 2 presents the reliability of the new factors, which range from 0.63 (the “I know best” mentality) to 0.93 (image consumption). Once again, only the “I know best” factor has a reliability score < 0.70 . Similar to Study 1, the CA factors correlate well with each other, with the exception of the “I know best” one. This factor also displays significantly poor correlations with the overall construct of CA (0.43 compared to 0.75–0.81 for the other factors).

As Table 2 shows, the validity check also includes several additional scales, all of which are positively related (Pearson correlations) to the overall CA construct. Supporting the discriminant validity of CA, 99% confidence intervals around these correlations are far below the value of 1. Thus, none of these constructs captures the same meaning as CA.

3.4. Study 4 – applications of the scale and tests of its validity

Study 4 aims to establish the construct validity of the new CA scale in the general population. Data were collected from 354 Israeli consumers (out of 376, a response rate of 94.0%), with percentage of women (50.8%) and average age (36.7 years old) that are close to the national distribution (51% and 37.7 years, respectively) and 46.7% reporting that their income is close to the national average. The average level of education is 14.5 years, slightly higher than the national average of

Table 1
Study 2 – number of items, reliability levels, means, standard deviations, and Pearson correlations between CA and related constructs.*

	# of items	A	Mean (SD)	1.	2.	3.	4.	5.	6.	7.	8.
1. Image-based consumption	8	0.90	1.82 (0.75)								
2. Exhibitionism consumption	7	0.78	2.94 (0.76)	0.50							
3. Consumer bragging	5	0.79	3.19 (0.76)	0.49	0.37						
4. “I know best” mentality	5	0.68	2.23 (0.80)	0.32	0.38	0.36					
5. Consumer superiority	4	0.73	1.81 (0.65)	0.48	0.39	0.48	0.48				
6. Arrogance total	29	0.93	2.40 (0.55)	0.79	0.79	0.69	0.54	0.67			
7. CSII	12	0.84	2.52 (0.60)	0.52	0.38	0.24	0.53	0.36	0.54		
8. Status consumption	5	0.77	2.31 (0.49)	0.62	0.30	0.26	0.34	0.41	0.53	0.57	
9. Price-prestige	9	0.86	2.20 (0.75)	0.44	0.46	0.33	0.43	0.46	0.65	0.55	0.65

* All correlations are significant at $p < 0.01$.

Table 2
Study 3 - number of items, reliability levels, means, standard deviations, and Pearson correlations between CA and related constructs.*

	# of items	α	Mean (SD)	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Image-based consumption	8	0.93	2.19 (0.89)												
2. Exhibitionism consumption	6	0.83	3.18 (0.86)	0.55											
3. Consumer bragging	5	0.85	2.42 (0.84)	0.41	0.58										
4. "I know best" mentality	4	0.66	3.11 (0.82)	0.10	0.18	0.23									
5. Consumer superiority	4	0.74	1.90 (0.68)	0.41	0.42	0.47	0.32								
6. Arrogance total	27	0.91	2.55 (0.62)	0.80	0.81	0.75	0.43	0.68							
7. Hedonic shopping	11	0.85	2.69 (0.92)	0.22	0.47	0.37	0.01	0.08	0.36						
8. Brand consciousness	4	0.73	2.69 (0.82)	0.67	0.39	0.26	0.04	0.27	0.54	0.26					
9. Consumer aggressiveness	6	0.81	2.18 (0.81)	0.34	0.31	0.29	0.26	0.41	0.44	0.25	0.29				
10. Vanity concerns	5	0.80	3.58 (0.74)	0.39	0.56	0.42	0.15	0.21	0.53	0.47	0.32	0.31			
11. Vanity view	6	0.91	3.26 (0.79)	0.28	0.40	0.55	0.36	0.35	0.47	0.09	0.20	0.16	0.39		
12. Exhibitionism	7	0.84	2.44 (0.81)	0.42	0.50	0.23	0.28	0.46	0.62	0.25	0.35	0.33	0.32	0.37	
13. Superiority	5	0.72	3.06 (0.84)	0.21	0.19	0.17	0.44	0.37	0.35	0.02	0.09	0.37	0.15	0.20	0.44

* Correlations above 0.16 are significant at $p < 0.05$, correlations above 0.20 are significant at $p < 0.01$.

12.8 years. In sum, this sample, although not entirely random, closely parallels the demographics of Israel's population.

A CFA of the 27 items re-substantiates the five-dimensional structure of CA. The authors dropped two items from the image-based consumption dimension, because they also loaded high on the consumer superiority factor (item 11 in Appendix A, loaded 0.407 and 0.576 on consumer superiority; item 12 loaded 0.355 and 0.388 on consumer superiority). A second CFA tested the remaining 25 items, resulting in a five-factor structure explaining 71.1% of the total variance (20.1% for image-based consumption, 6 items, loadings: 0.68 to 0.86; 14.7% for consumer bragging, 5 items, loadings 0.64 to 0.79; 14.1% for consumer superiority, 4 items, loadings: 0.75 to 0.77; 11.5% for exhibitionism-based purchases, 6 items, loadings: 0.53 to 0.82; and 10.8% for the "I know best" mentality, 4 items; loadings: 0.52 to 0.81).

As Table 3 illustrates, the relationships between the "I know best" dimension and the other dimensions are relatively weak, corroborating the results from Studies 2 and 3. In addition, its reliability is $\alpha = 0.67$, once again below the recommended level of 0.70 (Nunnally, 1978). Thus, based on consistent results from over 600 respondents in three different data collections from both students and adults, the authors decided to remove this dimension from further analysis.

Finally, a structural equation modeling (SEM with AMOS 21) based CFA tests the remaining 21 items to further evaluate the validity of the CA scale. Using an SEM model enables the testing of several aspects of construct validity including composite reliability (CR), average variance extracted (AVE), uni-dimensionality, and convergent and discriminant validity (Garver & Mentzer, 1999).

Composite reliability is calculated based on standardized factor loadings of observed variables (Garver & Mentzer, 1999) and should exceed 0.70. As Table 4 shows, the composite reliabilities of the four factors presented range from 0.89 to 0.93, indicating acceptable reliabilities for all of the latent variables.

Uni-dimensionality and convergent validity reflect the relationships between a latent variable and its indicators. Factor loadings for all of

the items are high (0.68 to 0.93; Table 4), with latent variables' AVEs ranging from 58% to 68%. Goodness-of-fit for all measurement models are good (NFI, NNFI, and CFI ≥ 0.90 , RMSEAs ≤ 0.08). Thus, CA captures a significant amount of variation in the latent dimensions, supporting its convergent validity and uni-dimensionality.

Discriminant validity refers to the extent to which the dimensions of a multi-dimensional scale are distinct from each other (Churchill, 1979). A correlation between latent dimensions that is too high (≥ 0.90 ; Bagozzi, Yi, & Phillips, 1991) suggests that they might be measuring a single rather than a multi-dimensional construct. The test of discriminant validity includes Fornell and Larcker's (1981) procedure of comparing the AVEs of each of the factors to the shared variance between each pair of factors. Overall, all of the AVE levels are higher than the shared variance values (Table 4), with the exception of exhibitionism consumption and consumer bragging. The shared variance between these factors is 62%, but their individual AVE is only 58%.

Table 4 reports the results of the overall measurement model. All loadings are high (0.68 to 0.93), and the correlation coefficients range from 0.58 to 0.79, with overall good fit statistics. These findings confirm the measurement quality of the items and the stability of the factor solution (Segars & Grover, 1998). They also suggest that the indicators of the model are uni-dimensional and that the constructs are distinct.

Common method variance (CMV) is always a concern when using self-report scales. A Harmon's one factor test (Podsakoff & Organ, 1986) addresses this issue by loading all of the indicators of the latent variables on a single factor using CFA. This model results in a poor fit with the data ($\chi^2 = 2069.94$, $df = 299$, $p \leq 0.00$; CFI = 0.62; NFI = 0.59; NNFI = 0.55, RMSEA = 0.13, indicating that the risk of CMV bias is minimal.

Nomological Validity. The literature suggests several constructs as antecedents of CA, including superiority (Raskin & Terry, 1988), ISA (Fisher, 1993), materialism (Griffin et al., 2004; Richins & Dawson, 1990), self-monitoring (O'Cass, 2000), and self-presentation (Leary,

Table 3
Factor means, standard deviations, and reliability levels for the dimensions of CA.

	Study 4		Study 5 sub-culture comparison		Study 6 cross-culture comparison	
	Israel		Jews	Arabs	Israel	USA
Image-based consumption	2.64 (0.99)		2.52 (1.04)	2.77 (0.96)	2.43 (1.05)	2.27 (0.94)
	$\alpha = 0.92$		$\alpha = 0.93$	$\alpha = 0.92$	$\alpha = 0.91$	$\alpha = 0.86$
Exhibitionism-based purchasing	2.96 (0.93)		2.83 (0.99)	3.19 (0.96)	2.64 (1.06)	3.00 (0.96)
	$\alpha = 0.89$		$\alpha = 0.89$	$\alpha = 0.89$	$\alpha = 0.91$	$\alpha = 0.87$
Consumer bragging	2.51 (0.93)		2.51 (0.99)	2.71 (0.93)	2.31 (1.01)	1.95 (0.86)
	$\alpha = 0.87$		$\alpha = 0.87$	$\alpha = 0.88$	$\alpha = 0.89$	$\alpha = 0.88$
Consumer superiority	2.78 (0.84)		2.81 (0.98)	2.85 (0.88)	2.79 (0.99)	2.59 (0.91)
	$\alpha = 0.86$		$\alpha = 0.89$	$\alpha = 0.85$	$\alpha = 0.88$	$\alpha = 0.80$

Table 4
Factor loadings and correlations between constructs - SEM analysis.

			Study 4	Study 5 sub-culture comparison		Study 6 cross-culture comparison		
Factor loadings ¹			Israel	Jews	Arabs	Israel	USA	
Image01	⇔	Image-based consumption	0.84	0.82	0.81	0.85	0.90	
Image02	⇔		0.88	0.87	0.84	0.90	0.75	
Image03	⇔		0.88	0.88	0.83	0.83	0.83	
Image04	⇔		0.84	0.82	0.74	0.87	0.80	
Image05	⇔		0.70	0.78	0.71	0.70	0.70	
Image06	⇔		0.80	0.74	0.80	0.73	0.76	
CR			0.93	0.92	0.91	0.92	0.91	
AVE			68%	67%	62%	67%	63%	
Exhib01	⇔	Exhibitionism consumption	0.72	0.70	0.77	0.72	0.71	
Exhib02	⇔		0.75	0.67	0.72	0.73	0.72	
Exhib03	⇔		0.72	0.73	0.80	0.70	0.73	
Exhib04	⇔		0.82	0.86	0.87	0.84	0.93	
Exhib05	⇔		0.77	0.77	0.80	0.79	0.71	
Exhib06	⇔		0.78	0.78	0.77	0.77	0.72	
CR			0.89	0.88	0.91	0.89	0.88	
AVE			58%	57%	62%	58%	57%	
Bragg01	⇔	Consumer bragging	0.68	0.76	0.81	0.68	0.71	
Bragg02	⇔		0.81	0.89	0.86	0.82	0.87	
Bragg03	⇔		0.81	0.76	0.84	0.74	0.84	
Bragg04	⇔		0.76	0.68	0.75	0.72	0.82	
Bragg05	⇔		0.75	0.72	0.70	0.74	0.91	
CR				0.93	0.88	0.91	0.89	0.92
AVE			58%	59%	63%	57%	69%	
Super01	⇔	Consumer superiority	0.80	0.74	0.79	0.70	0.72	
Super02	⇔		0.81	0.77	0.88	0.85	0.87	
Super03	⇔		0.83	0.80	0.75	0.80	0.72	
Super04	⇔		0.83	0.78	0.78	0.74	0.71	
CR				0.89	0.86	0.88	0.86	0.84
AVE				67%	60%	64%	60%	57%
<i>Correlations (shared variance)</i>								
Image		Exhibitionism	0.68 (0.46)	0.51 (0.26)	0.65 (0.42)	0.57 (0.32)	0.23 (0.05)	
Image		Bragging	0.58 (0.34)	0.32 (0.10)	0.53 (0.28)	0.38 (0.14)	0.39 (0.15)	
Image		Superiority	0.61 (0.37)	0.44 (0.19)	0.56 (0.31)	0.51 (0.26)	0.40 (0.16)	
Exhibitionism		Bragging	0.79 (0.62)	0.68 (0.46)	0.68 (0.46)	0.67 (0.45)	0.33 (0.11)	
Exhibitionism		Superiority	0.56 (0.31)	0.48 (0.23)	0.45 (0.20)	0.48 (0.23)	0.37 (0.14)	
Bragging		Superiority	0.59 (0.35)	0.52 (0.27)	0.62 (0.38)	0.49 (0.24)	0.53 (0.28)	
Fit measures		χ^2 (df = 183)	713.80	644.75	438.51	513.73	333.15	
		NFI	0.96	0.96	0.94	0.95	0.96	
		NNFI	0.96	0.97	0.66	0.96	0.98	
		CFI	0.97	0.97	0.97	0.97	0.98	
		RMSEA	0.08	0.08	0.08	0.08	0.07	

¹ All loadings are significant at $p < 0.001$.

1983). Shopping innovativeness (SI) (Lumpkin, 1985) and brand symbolism (Bhat & Reddy, 1998) serve as the consequences of CA. These consumption behaviors offer high-CA individuals venues for establishing their superiority.

Establishing nomologic validity involves several steps. First, an SEM model evaluates the relationships between CA and all five independent

constructs, as well as the relationships between CA and the independent constructs, as predictors of SI and brand symbolism (see Appendix B, Model 1), resulting in a satisfactory fit with the data ($\chi^2 = 913.95$; $df = 282$, $p \leq 0.01$; NFI, NNFI = 0.95, CFI = 0.96, RMSEA = 0.08). Next, a second model tests these relationships without the relationships between the five independent constructs and CA (see Appendix B,

Table 5
Measures of nomological validity - SEM analysis.*

			Study 4	Study 5 sub-culture comparison		Study 6 cross-culture comparison	
			Israel	Jews	Arabs	Israel	USA
Materialism	⇔	Consumer arrogance	0.62	0.51	0.18	0.50	0.48
Superiority	⇔		0.32	0.45	0.27	0.24	0.39
Social approval	⇔		0.43	0.45	0.79	0.47	0.44
Self-monitoring	⇔		0.22	0.22	0.18	0.20	0.25
Self-presentational	⇔		0.21	0.18	0.24	0.22	0.17
Consumer arrogance	⇔	Innovative shopping	0.81	0.75	0.78	0.77	0.52
Consumer arrogance	⇔		Brand symbolism	0.53	0.41	0.63	0.51
Fit measures		χ^2 (df)	928.27 (292)	1359.82 (584)		1228.43 (584)	
		NFI	0.96	0.96		0.95	
		NNFI	0.97	0.97		0.97	
		CFI	0.97	0.98		0.97	
		RMSEA	0.07	0.05		0.05	

* All correlations above 0.18 are significant at $p < 0.01$.

Model 2), yielding significantly poorer results than the first one ($\chi^2 = 1274.53$; $df = 287$, $p \leq 0.01$; NFI = 0.75; NNFI, CFI = 0.79, RMSEA = 0.09; $\Delta\chi^2_{(5)} = 360.58$; $p \leq 0.01$). The last model testing the nomological validity of CA includes only relationships between the independent constructs and CA, as well as those between CA and the dependent variables (see Appendix B, Model 3). This model yields a similar fit to the first model ($\chi^2 = 928.27$; $df = 292$, $p \leq 0.01$; NFI, NNFI = 0.97, CFI = 0.96, RMSEA = 0.07), with no significant difference between the models ($\Delta\chi^2_{(10)} = 14.32$; $p \leq 0.22$), indicating that the additional relationships between the independent and dependent variables do not add significantly to the fit of the model, and the last model (Model 3) should be adopted. Table 5 presents the results of this model.

As expected, positive relationships were found between CA and all its predictors: materialism ($\gamma = 0.62$), superiority ($\gamma = 0.32$), social approval ($\gamma = 0.43$), self-monitoring ($\gamma = 0.22$), and self-presentational ($\gamma = 0.21$). CA was also positively related to SI ($\beta = 0.81$) and brand symbolism ($\beta = 0.53$).

In sum, the findings of this study establish the validity of CA in the general population and substantiated its uniqueness in a nomological model.

3.5. Study 5: validation within and across sub-cultures – Israeli Jews and Arabs

This study assesses whether the validity of the CA scale is stable within and across two Israeli sub-cultures—Jews and Arabs. These sub-populations differ with regard to several cultural dimensions, which could potentially affect the relationships between CA and other constructs. While Israeli Jews and Arabs live in the same country under the same government, they form distinct cultural groups (Mikulincer, Weller, & Florian, 1993), making them ideal for testing the validity of CA in a cross-cultural setting.

The Jewish sub-sample includes 304 respondents (out of 350 distributed surveys; an 87% response rate). The respondents' demographic profiles resemble the national averages, with an average age of 36.7 years (vs. 37.7 in the general population), educational average of 14.6 years (slightly higher than the general population's 12.8 years), 59% women (slightly higher than the 51% in the general population), and 54.6% earning above national average of income.

The second sub-sample includes 169 Israeli Arabs (out of 200; a response rate of 84.5%). The respondents' average age is 31.6 years (vs. 34.6 years in the Israeli Arab population), 45.6% are females (vs. 49.1% in the general population). On average, they have 13.73 years of education (vs. 11.1 year average for Israeli Arabs), and 66.2% make less than the national average. These figures parallel the lower educational and income levels of Israeli Arabs compared to the general population.

The initial test of the construct validity of CA in each sub-sample separately follows the same steps as in the previous studies. The results mirror those obtained in earlier stages (Tables 3–5) and are not detailed here. The next stage is the testing of the cross-group invariance by investigating configural, scalar metric, and factor covariance invariance (Griffin et al., 2004; Myers, Calantone, Page, & Taylor, 2000; Steenkamp & Baumgartner, 1998).

Analysis of the configural invariance (Model 1) demonstrates a good fit with the data ($\chi^2 = 1083.40$, $df = 366$; NFI = 0.96, NNFI, CFI = 0.97, RMSEA = 0.06). Thus, the data support the four-factor model in both groups, indicating that they exhibit the same simple factor structure. The metric covariance invariance test (Model 2) also indicates a good fit ($\chi^2 = 1098.01$, $df = 383$; NFI = 0.96, NNFI, CFI = 0.97, RMSEA = 0.06). A non-significant difference between the models ($\Delta\chi^2 = 14.61$; $df = 17$, $p = 0.62$) supports the rejection of the unconstrained model in favor of the constrained model in which the factor loadings are equal across groups, allowing meaningful comparisons of the scores of the cross-group items (Steenkamp & Baumgartner, 1998).

The testing of the scalar invariance (Model 3) shows a good fit as well ($\chi^2 = 1136.69$, $df = 370$; NFI, NNFI = 0.96, CFI = 0.97, RMSEA = 0.07). Again, there is no significant difference between this model and Model 1 ($\Delta\chi^2 = 53.29$; $df = 4$; $p = 0.99$), indicating that the items' intercepts are invariant across samples. The analysis of the covariance invariance (Model 4) also results in a good fit ($\chi^2 = 1092.10$, $df = 370$; NFI = 0.96, NNFI = 0.97, CFI = 0.97, RMSEA = 0.06). A non-significant difference between this model and Model 1 ($\Delta\chi^2 = 8.70$; $df = 4$; $p = 0.07$) indicates that the factor correlations are invariant across groups, leading to the rejection of the unconstrained model. Finally, Model 5 presents the most rigorous testing of invariance by imposing all of the above constraints. This model fits the data well ($\chi^2 = 1111.56$, $df = 391$; NFI = 0.96, NNFI, CFI = 0.97, RMSEA = 0.07). The non-significant difference between Models 5 and 1 ($\Delta\chi^2 = 28.16$; $df = 15$; $p = 0.07$) indicates that the scale is overall invariant across groups.

Additionally, the test of the nomological validity with SEM models for the two groups using the same constructs as in Study 4 (see Appendix B, Model 3) yields goodness-of-fit measures that support the nomological validity of CA in both samples (see Table 5). CA's relationships with the designated constructs are significant ($p < 0.05$) and in the same direction in both samples. Finally, given CA's possible negative connotations, this study also tests relationships between social desirability bias (SDB) and CA using Netemeyer et al. (1995) 10-item version of the Crowne and Marlowe (1960) SDB scale. CA's correlations with the SDB scale illustrated in Table 2 are very low for both the Jewish and Arab sub-samples (0.15 and 0.17, respectively). These values fall below the 0.2 level that Steenkamp, De Jong, and Baumgartner (2010) identify as problematic. Thus, SDB does not influence CA.

In sum, this study supports the invariance of the CA scale across two Israeli sub-cultures. The next step in the validation process is to test the proposed scale using samples from two different countries.

3.6. Study 6: between-groups validity - cross-cultural invariance

The goal of this study is to ensure the cross-cultural invariance of the scale between two countries. This study uses data from 192 Israeli students (96% of the 200 surveys distributed) and 155 US students (86% of the 180 surveys distributed). Before testing the cross-cultural invariance of CA, the authors tested its internal validity within the groups. The findings in Tables 4 and 5 substantiate the measurement quality of the items and the stability of the factor solution for the Israeli and US samples (Segars & Grover, 1998). Next, this study assesses the cross-cultural configural, metric, and covariance invariance.

The test of the configural invariance (the unconstrained Model 1) shows good fit statistics ($\chi^2 = 846.83$, $df = 366$; NFI = 0.95, NNFI, CFI = 0.97, RMSEA = 0.06) and supports the four-factor model in both countries. Similarly, the test of metric covariance invariance (Model 2) demonstrates a good fit ($\chi^2 = 868.90$, $df = 383$; NFI = 0.95, NNFI, CFI = 0.97, RMSEA = 0.06). There is a non-significant difference between the models ($\Delta\chi^2 = 22.07$, $df = 17$; $p = 0.18$) indicating that the factor loadings are equal across countries and that the back-translation into English did not create problems (Griffin et al., 2004). The test of the scalar invariance (Model 3) also shows a good fit ($\chi^2 = 1136.69$, $df = 370$; NFI, NNFI = 0.96, CFI = 0.97, RMSEA = 0.07). This model is not significantly different from Model 1 ($\Delta\chi^2 = 53.29$; $df = 4$; $p = 0.99$), indicating that the items' intercepts are invariant across samples.

The factor covariance invariance (Model 4) also yields a good fit ($\chi^2 = 849.63$, $df = 370$; NFI = 0.95, NNFI, CFI = 0.97, RMSEA = 0.05). Models 4 and 1 do not differ ($\Delta\chi^2 = 2.80$; $df = 4$; $p = 0.59$), indicating that the factor correlations are invariant across countries. Finally, Model 5 results in good fit statistics ($\chi^2 = 886.68$, $df = 391$; NFI = 0.95, NNFI, CFI = 0.97, RMSEA = 0.06.) and is not significantly different from Model 1 ($\Delta\chi^2 = 40.03$, $df = 25$; $p = 0.97$), indicating

that the scale is consistent across countries and the latent constructs are composed similarly with respect to the measured variables.

In addition, the test of the *nomological model* (SEM) in both groups using the same constructs reported in Studies 4 and 5 demonstrates good fit statistics (see Table 5 and Appendix B, Model 3). The relationships between CA and its antecedents are positive ($p < 0.05$) in both groups. Finally, similar to Study 5, SDB in both samples correlates very weakly with CA (0.16 and 0.19) with values below 0.2. In sum, this study provides further support for the validity of the CA scale within and across the Israeli and US cultures, including configural, scalar, metric, and factor covariance invariance, as well as its uniqueness as a theoretical construct.

4. General discussion

This research provides a conceptualization of a new CA construct reflecting individuals' tendency to use the acquisition, utilization, and display of possessions as a means of expressing a superior self-image. CA captures an individual-level trait consisting of four dimensions: image-based consumption, consumer bragging, exhibitionism-based purchases, and consumer superiority. The findings confirm the internal consistency of CA, its reliability, and discriminant and nomological validity in six studies and within and across several cultural settings.

While the findings corroborate the four-dimension structure of CA, its fifth dimension, "I know best" mentality, is not supported. This factor focuses mostly on consumers interactions with salespeople. These findings imply that while those who score high on CA want to establish their superiority over other consumers, they might not necessarily do so in relation to salespeople. Perhaps the knowledge that salespeople normally have challenges high-CA customers' sense of superiority. As studies have established, the communication of arrogance has no bearing on its validity (Hareli et al., 2006; Johnson et al., 2010; Silverman et al., 2012). High CA people might view themselves as having superior knowledge about purchases. However, this view is not always accurate. Thus, interacting with salespeople, who possess factual knowledge, might pose a threat to this perceived superior self-image. Therefore, future research should continue exploring the relationship between CA and interactions with salespeople.

Similarly, future studies might explore if indeed high-CA consumers are superior to other consumers. Do they really make better consumption decisions, buy better products, know more than other consumers? Or does being arrogant actually lead to errors in judgment when making consumption decisions?

Finally, research shows that consumers influence the buying behaviors of other consumers (Bearden et al., 1989). Opinion leaders (Flynn et al., 1996) and market mavens (Feick & Price, 1987) are more influential than others due to their tendency to communicate information to the marketplace. However, their source of influence relies on their knowledge and understanding of the market, which make them well regarded by those seeking their opinions. The case of CA might be different. While high-CA individuals tend to communicate their opinions to the marketplace too, they might not be supported by factual knowledge and their arrogant behavior might have a negative image in the eyes of other consumers. This arrogant communication might lead other consumers to make negative inferences about and even lead to the rejection of the products championed by high-CA people. Thus, the interplay between the person, the behavior, and the product merits further study.

4.1. Managerial implications

Word of mouth (WOM) behavior is one of the most effective forms of marketing communication and becomes increasingly more important due to social media. As such, companies try to actively weave their brands and products into this consumption discourse and affect it.

Companies can use this validated CA scale as a segmentation tool to identify those consumers who are more or less likely to brag about their products and brands. The behavior of these consumers who exhibit high CA tendencies can be monitored, encouraged, and rewarded. Doing so will allow companies to be more efficient in their social media spending and rewards programs. They can also use the scale to target those consumers who value the self-projection of superiority. These consumers will be more responsive to self-enhancement and "be better than others" marketing messages.

4.2. Limitations

The major limitation of this set of studies is the use of self-report surveys. Since CA is defined as a behavioral tendency, future studies should validate that the self-report scale is indeed associated with arrogant behavior. How consumers talk about their purchases, the number of people they tell about them and the frequency that they do so are observable WOM behaviors that will support the validation of the proposed CA construct. Nevertheless, beyond the documented importance of CA in predicting and explaining various consequences of consumption, using the CA scale in future studies along the lines suggested in the discussion section will hopefully prove fruitful.

Appendix A. List of initial items of CA scale

Image-based consumption

1. I prefer to buy only name brands^a
2. I look mostly for name brands when I shop^a
3. I tend to buy only in prestigious stores^a
4. I try to buy only expensive products^a
5. The image of a product affects my purchase of it^a
6. I often buy products that emphasize my social status^a
7. Even if I can get a product on discount I would prefer to pay full price for it
8. I often buy an expensive product even if I cannot afford it
9. I sometimes buy an expensive product even if I don't need it
10. I always buy the best product there is
11. I make sure that I buy only products that single high social status
12. It is important to me that the products I buy emphasize my social status

Exhibitionism-based purchasing

1. I tend to buy products that attract attention^a
2. I tend to buy products that make me look meticulous^a
3. I make sure to wear clothes that lead others to compliment me^a
4. It is important to me that others realize that I have the best things^a
5. I love it when people show interest in what I buy^a
6. It is important to me that others realize that I have the best things^a
7. I mostly buy things that are considered the best

Consumer bragging

1. I like to show others what I buy^a
2. I frequently make sure that others know what I buy^a
3. I always tell others how my purchases are the best^a
4. I like to compare the things I have with others^a
5. I tend to choose showy products^a
6. I think that every purchase that I made is a good one
7. When I'm alone I buy cheaper products than when I'm with others
8. I buy only products that show clearly their brand name

Consumer superiority

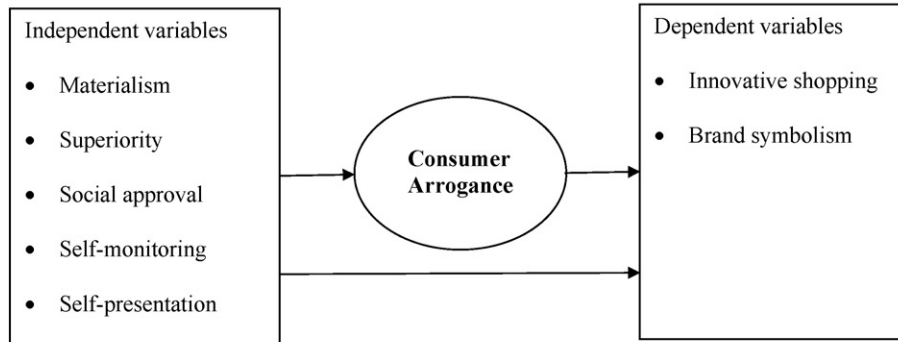
1. Compared to others, I usually know what the best buy is^a
 2. Not many people know the best buy as well as I do^a
 3. I tend to buy better products than most people I know^a
 4. I usually know where to get the best deals better than others^a
 5. Most people I know compromise on the quality of the things they buy
 6. I know best mentality
 1. Most times, I know more about a product than a salesperson
 2. Too often I run into salespeople who know nothing about their jobs
 3. Many salespeople think they know more than me
 4. Many salespeople who served me only know the products superficially
 5. I think that there are many products with low quality
 6. I seldom believe salespeople
 7. I often complain about a product or service that I paid for
 8. I think you should always find the best bargain
 9. As a consumer, I am always right
-

^a Items included in the final version of the scale.

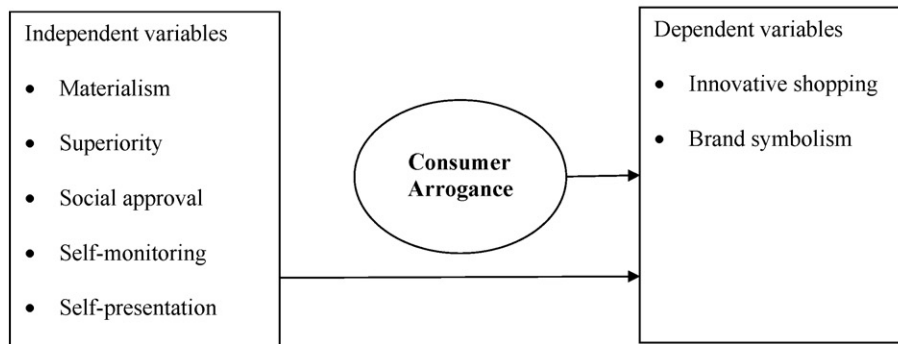
Appendix B. Nomological model of Studies 4, 5, and 6

Nomological model of Studies 4, 5, and 6

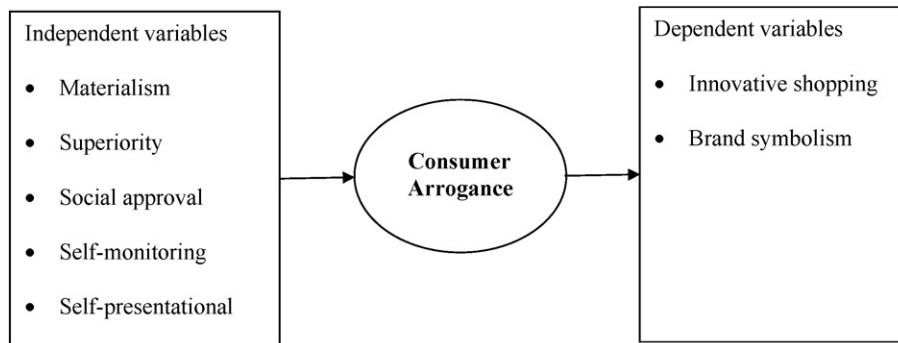
Model 1:



Model 2:



Model 3 (final model):



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