

A New Direction in Identity Modification: Tangible Products as Modifiers of Identities
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How does the affective impression of one's identity change by association with a tangible product? Is a salesclerk seen as better, more powerful, or more active if he or she drives a sports car? What about a clunker car? What about a delinquent? This research addresses all these questions by developing new ACT modifier equations for tangible consumer products – that is the created or processed objects that people may own, possess, and use in their everyday lives.

We build on our previous research which shows that consumer products are interpreted both symbolically and affectively (Lulham 2013, Shank and Lulham 2016a) and that they modify identities in ways consistent with the current ACT identity-modifier equations (Shank and Lulham 2016b). Following the research on role-identities being modified by dispositional traits, status characteristics, and emotions (Averett and Heise 1987, Heise and Thomas 1989, Smith, Matsuno and Ike 2001), we collected a preliminary study of 209 products and selected 52 that best covered the EPA space (7 of 8 EPA octants were covered; Table 1). We then crossed these in a 7x8 Latin square design with 58 identities, updating those used by Heise and Thomas (1989). The 52 products, 58 identities, and 212 combined product-identity were then rated in sets by 853 US Amazon mturk participants (96.7%, 825 usable). Most (98.9%) of the terms received 35+ ratings.

We directly compared this dataset to the Heise and Thomas (1989) emotion modification dataset. Combined modifier-identity EPA was primarily predicted by the base identities and their modifiers ($R^2 = .79$ to $.85$; Table 2: Model 2). Adding the dataset source, an identity by dataset interaction term, and a modifier by dataset interaction term added minimal additional explanatory power ($\Delta R^2 = .02$ to $.06$; Table 2: Model 2 vs. 4). This provides strong support that the identity modification process is similar for either tangible products, emotions, or traits (Heise and Thomas have shown emotion and trait equations are similar).

Some interesting difference occur, however. Modifier equations from the regressions (Table 3) show that an identity's evaluation depends more on emotion evaluation than product evaluation (.67 vs. .40) and its potency depends more on emotion potency than produce potency (.60 vs. .30), but its activity is nearly equally dependent on emotion or product activity (.44 vs. .43). Therefore, people may assume more about someone's warmth and power from emotional displays compared to their possessions because emotions have a more direct tie to the person's disposition. Remarkably, possessions provide similar – although not as strong – impression signals as emotions. Emotions also show a potency-evaluation trade-off not present in products, whereby potent emotions lower one's evaluation (-.54; products -.16) and positive emotions make one seem less powerful (-.19; products .06).

Understanding that identity modification extends beyond social and dispositional characteristics to tangible objects greatly expands the identity modification potential in ACT. Our next steps are to examine all the differences and develop final product modifier equations using BayesACT. The ability to incorporate product modifiers into ACT will allow it to be applied to fields such as consumer science, fashion, design, marketing, advertising, human-computer interaction, and business.

Table 1: Products chosen for study by EPA octant.

EPA [+++] sports car, skates, basketball, race car, power tool, birthday cake, champagne, trophy, [++-] perfume, rowboat, security camera, umbrella, dictionary, a Sudoku, green tea, a safe, [++-] French maid costume, pocket radio, cassette tape player, tricycle, [+--] VCR, bathroom towel, landline phone, slippers, crib, doll, yard gnome, baby blanket, [-++] gas-guzzler, slutty Halloween costume, chain saw, suicide vest, gun, noisemaker, mouse trap, steroids, [-+-] wall crucifix, lead painted toy, cockroach bait, cigarette, black lipstick, soured milk, gothic clothing, cigar, [---] none, [---] totaled car, hospital gown, clunker car, flat basketball, broken computer, chewing tobacco, cremation urn, diet shake

Table 2: R-square (change in R-Square) for Hierarchical Linear Regression Models for Predicting the Combined Modified-Identity for Both Products and Emotions Datasets.

Model	Combined Modifier-Identity		
	Evaluation	Potency	Activity
1: Identities	.41	.56	.53
2: + Modifiers	.85 (.44)	.79 (.23)	.81 (.28)
3: + Dataset Dummy	.85 (.00)	.79 (.00)	.85 (.04)
4: + Identities X Dataset & Modifiers X Dataset	.87 (.02)	.81 (.02)	.87 (.02)

Note: Dataset dummy separates the products and emotions dataset.

Table 3: Coefficients Producing the Identity Modifier Equations for the Products and Emotions Datasets.

	Cons.	I _E	I _P	I _A	M _E	M _P	M _A	I _E M _E
C _E (products) =	-.54	.55	-.07	-.04	.40	-.16	.00	.09
C _E (emotions) =	-.40	.48	-.02	-.08	.67	-.54	.09	.12
C _P (products) =	-.08	-.05	.53	.01	.06	.30	.09	
C _P (emotions) =	-.21	-.05	.60	.00	-.19	.60	.02	
C _A (products) =	.37	-.05	-.01	.49	.00	.04	.43	
C _A (emotions) =	-.25	-.05	.01	.65	-.07	.10	.44	

Note: Lighter italicized coefficients are not significant at $p \leq .05$. The emotions equations are slightly different from Heise and Thomas (1989) due to different regression modeling.

References

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