Psychology & Marketing

Using Polynomial Regression Analysis and Response Surface Methodology to Make a Stronger Case for Value Congruence in Place Marketing

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ABSTRACT

Values are an important concept in marketing because they comprise part of peoples' identity and can thus help marketers separate and target different audiences. Unsurprisingly, places and their marketing initiatives increasingly try to appeal to (potential) residents' identity by communicating core values. While the notion of value congruence is not novel, most empirical methods in marketing to date only account for the degree rather than the level of congruence. To address this issue, the present article utilizes polynomial regression and response surface methodology (Edwards & Parry, 1993) in the context of place marketing. Accordingly, the first study shows that the perceived congruence of residents' own values and the values of stereotypical city inhabitants significantly affect residents' feelings about their own cities ($N = 1257$), but with different effects for different values and levels of congruence. This finding holds not only for popular target groups such as the "creative class" but also across all groups. The second study ($N = 449$) shows that city slogans can effectively communicate specific values and that value congruence leads to a more positive evaluation of the city brand. Finally, the article discusses the benefits of differentiating between levels of congruence both in marketing research in general, and place brand management in particular. **© 2014 Wiley Periodicals, Inc.**

Values are general beliefs about the importance of desirable behaviors or end states (Rokeach, 1973). They indicate "what a person consciously or subconsciously desires, wants, or seeks to attain" (Locke, 1976, p. 1304). For that matter, values and value congruence are important concepts in marketing, suggesting that people buy products to match their actual or desired self-concepts (Aaker, 1999; Sirgy, 1982), that different target groups can be separated by their value settings (Brangule-Vlagsma, Pieters, & Wedel, 2002; Sudbury & Simcock, 2009), and that brands can be positioned based on consumer values (Dibley & Baker, 2001; Kahle, Beatty, & Homer, 1986). These findings are not only interesting for product marketing and branding, but also for employer branding (Edwards, 2010) or tourism marketing (Pike, 2012).

While the value of value congruence between a customer and, for instance, a brand is theoretically very straightforward, most empirical methods reduce such congruence to overly simple difference models (i.e., value of the customer − value of the product = value congruence) in different complexity types, ranging from mere difference models to more advanced models (e.g., Euclidean-distance models) or weighted models (e.g., by the importance of each value; for a deeper discussion see Shanock, Baran, Gentry, Pattison, & Heggestad, 2010; Sirgy, 1982). While such values may reflect the degree of congruence, they neglect the level at which (in)congruence is achieved. Such congruence levels between different levels of values, however, may have additional effects (Edwards & Cable, 2009; Shanock et al., 2010). For example, congruence between a high demand in security and a high delivery in security likely leads

Psychology and Marketing, Vol. 31(3): 184–202 (March 2014)
View this article online at wileyonlinelibrary.com/journal/mar
© 2014 Wiley Periodicals, Inc. DOI: 10.1002/mar.20686

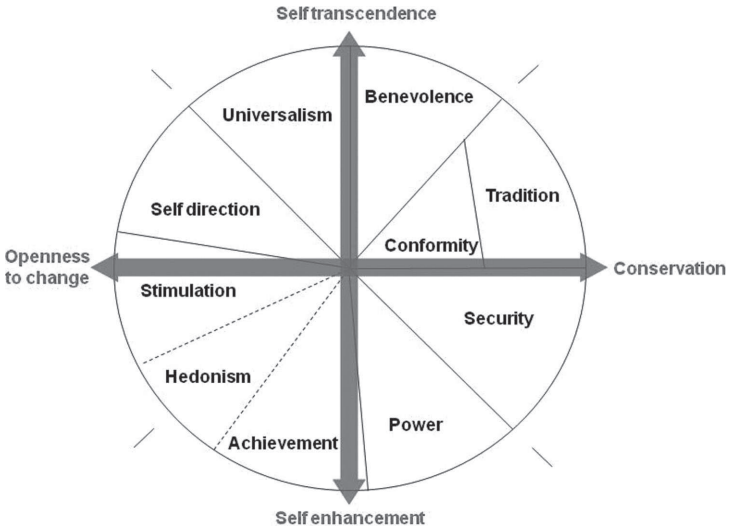


Figure 1. The Schwartz value circumplex model (according to Schwartz et al., 2001).

to a different product satisfaction than congruence of a low demand and a low delivery.

To address this issue, the present article show the use of polynomial regression and response surface methodology (Edwards, 1994; Edwards & Parry, 1993), exemplifying it on the case of values in place marketing. Place marketing was chosen for two reasons: first, places' images are closely tied to the attribution of specific values. Thus, place marketing makes a suitable case for demonstrating the usefulness of an enhanced method of assessing value congruence. Second, places such as cities, for instance, increasingly compete for the attention of investors, companies, tourists, new residents, and most of all qualified workforce—the so-called talents or the *creative class* (Darchen & Tremblay, 2010; Florida, 2004; Zenker, 2009). The fight for talents is a consequence of the direct benefits for a city (e.g., higher tax income), but also of the indirect benefits that talents generate, such as the improvement of the city's image and the general attractiveness for other target groups such as companies and investors. As Carly Fiorina, former CEO of Hewlett-Packard, once remarked: "Keep your tax incentives and highway interchanges; we will go where the highly skilled people are" (Florida, 2004, p. 6). To attract this target audience, and to differentiate one city from another, place marketers increasingly use marketing and branding practices (Anholt, 2010; Braun, 2012; Zenker, 2011), trying to match their target groups' identity by communicating city core values. By such means, cities try to establish themselves, for instance, as young, vibrant, and creative (Vanolo, 2008), thereby creating a value-laden city communication. As place marketing gains importance, there is also a growing need for elaborate methods that may help practitioners design marketing tools according to the characteristics of the target groups.

In summary, the objective of this work is (1) to show the value of response surface methodology for the field of marketing; (2) add more findings to the field of value research in general and value congruence in particular; and (3) make a first case for the importance of value congruence in place communication for attracting talents, thereby garnering attention to the academically young field of place marketing, while also illuminating how other marketing fields may profit from these findings.

THEORETICAL BACKGROUND

Values and Value Congruence

When seeking to understand the structure of values, it is important to realize that individual values are not independent but rather related in complex ways. Because individual value profiles are organized in systems, the importance of one specific value has implications for the preference of other values, too. In fact, it is not uncommon for a single person to hold multiple conflicting values simultaneously, albeit with interdependencies among each other (Edwards & Cable, 2009; Meglino & Ravlin, 1998; Rokeach, 1973; Schwartz et al., 2001; Van Quaquebeke, Zenker, & Eckloff, 2009). To understand the complexity in value configurations, Schwartz proposed a value circumplex model (Schwartz, 1992; Schwartz et al., 2001) that postulates 10 key value orientations (value types) represented in a coordinate system with two independent main dimensions: "openness vs. conservation" and "self enhancement vs. self transcendence" (see Figure 1). In terms of their motivational content, adjacent value types are compatible, while value types separated by 90° are largely unrelated, and those separated by 180° are incompatible.

While marketing research and practice often use other value approaches such as the List of Values (LOV; Feather, 1975; Kahle, 1983; Kahle, Beatty, & Homer, 1986; Rokeach, 1973), the Values and Life Style (VALS; Kahle, Beatty, & Homer, 1986; Maslow, 1954;

Mitchell, 1983), or the Sinus-Milieus (SINUS, 2013), the Schwartz circumplex model is considered state of the art in psychology, and it has one major advantage: It represents in a very straightforward fashion that value preferences are interdependent. For example, these days, security often represents a demand upon places. Cities that address this value intensively, however, have to "pay a price" because their profile necessarily suffers with regard to openness and freedom values. Thus, by simply applying the Schwarz circumplex model, much more sophisticated managerial implications can be deduced compared to previous value approaches in marketing.

Beyond the issue of value structures themselves, the issue of value congruence should receive equally elaborate attention. Although place marketing research has not yet embraced a framework for value congruence, such a framework has already been developed in other fields. In particular, the field of organizational behavior offers a rich perspective on the topic: As one example, Kristof (1996) defines person-organization fit as "compatibility between people and organizations that occurs when at least (a) one entity provides what the other needs, (b) they share similar fundamental characteristics, or (c) both" (pp. 4–5). This definition entails two distinct kinds of fit: complementary (delivering what is needed) and supplementary (similarities in characteristics; Cable & Edwards, 2004; Van Vuuren, Veldkamp, de Jong, & Seydel, 2007). Therefore, it is suggested that supplementary fit is strongly affected by value congruence (Verquer, Beehr, & Wagner, 2003).

In marketing, such person-company or person-brand fit discussion is often related to identity-based consumer behavior (Reed II, Forehand, Puntoni, & Warlop, 2012), company or brand identification (Bhattacharya & Sen, 2003; Stokburger-Sauer, Ratneshwar, & Sen, 2012), or the field of target group segmentation (Brangule-Vlagsma, Pieters, & Wedel, 2002; Sudbury & Simcock, 2009).

An identity in this case is understood as a category label that "invokes a mental representation (i.e., a clear picture) of what that 'kind' of person looks like, thinks, feels, and does" (Reed II et al., 2012, p. 312) and values are thus a strong part of it. Once an identity (e.g., a Mac user vs. a PC user) becomes central to the consumer's self-concept, it affects the person's beliefs, attitudes, emotions, and behaviors, which could then lead to buying specific products or brands to match and represent the actual or desired self-concept (Aaker, 1999; Dibley & Baker, 2001; Reed II, 2002).

Other research concentrates more on company or brand identification, suggesting that—based on social identity theory (Tajfel & Turner, 1986) and its grounded self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987)—when identifying with a company or a brand, a meaningful link between the self-concept and the identification target is established (Bhattacharya & Sen, 2003; Stokburger-Sauer, Ratneshwar, & Sen, 2012). Such a link involves the integration of the identification target's attributes into the self-concept. In other words, identification or self-categorization broadens the self-concept and links aspects of the self to a group prototype (Turner et al., 1987), such as group values. As one determinant of identification, the *identity fit* is very central in this process (Bhattacharya & Sen, 2003; Turner et al., 1987), since a certain degree of congruence in core values and core attributes between the self and identification target is necessary.

Finally, values and their congruence are used in target group segmentation: Brangule-Vlagsma, Pieters, and Wedel (2002), for instance, propose a framework for dynamic value segmentation and offer seven different value segments for a categorization (e.g., a security values segment). Sudbury and Simcock (2009), as another example, use the LOV (Kahle, 1983) to separate older consumers in the United Kingdom, elaborating the different needs and wants of this group.

Unfortunately, knowledge for the field of place marketing about the use of values and the different value-based approaches in marketing is scarce. Although the fundamental dynamics are not assumed to be much different compared to other value congruence research, investigating such issues in the domain of place marketing may draw attention to this academically young field and yield more precise practical implications for place marketers.

The Development of Place Marketing

Braun (2008) defines place marketing (in this case, its synonym: city marketing) as "the coordinated use of marketing tools supported by a shared customer-oriented philosophy for creating, communicating, delivering, and exchanging urban offerings that have value for the city's customers and the city's community at large" (p. 43). Its aim is "to maximize the efficient social and economic functioning of the area concerned, in accordance with whatever wider goals have been established" (Ashworth & Voogd, 1990, p. 11). According to Kotler, Haider, and Rein (1993), one of the aims of place marketing is to "promote a place's values and image so that potential users are fully aware of its distinctive advantages" (p. 18).

Although there are examples of marketing being used to promote cities dating back to 1850 (Ward, 1998), place marketing is a relatively new field of academic research (Ashworth & Voogd, 1990; Kotler, Haider, & Rein, 1993). Due to the popular notion that marketing is relevant for business but not public entities, the extension of the concept of marketing in the late 1960s under the influence of Kotler and Levy (1969) did not put place marketing on the agenda. But not too long after, O'Leary and Iredal (1976) identified place marketing as a challenging new area for the future. In the following years, first publications concerning place marketing came from regional economists (see for an overview: Braun, 2008), but were mostly limited to promotional aspects of place marketing. Ashworth and Voogd (1990)

Table 1. The Creative Class and Common Job Classes.

Class		Examples of Job Categories
Creative class	Creative core	Architecture and engineering occupations; arts, design, and media occupations
	Creative professionals	Management occupations; legal occupations
Common classes	Working class	Construction and extraction occupations; production occupations
	Service class	Health care support occupations; food preparation occupations
	Agriculture	Farming, fishing, forestry occupations

subsequently widened the scope and tried to develop a strategic planning framework for place marketing and from that point on, place marketing has been discussed in the wider context of structural change in cities and regions (e.g., Van den Berg & Braun, 1999). The publication of a series of books by Kotler, Haider, and Rein (1993, 1999, 2002) on *Marketing Places* finally established place marketing on the agenda of the marketing community.

The number of articles concerning place marketing has increased sharply during recent years. Lucarelli and Berg (2011) documented an exponential growth of the number of articles dealing with city branding in the period 1988–2009, finding 217 empirical journal articles concerning this topic. In the field, the focus of research has shifted toward place branding (Braun, 2012; Kavaratzis, 2008; Zenker, 2011) because the branding of places (and cities in particular) has gained popularity among city officials.

In place marketing and branding, the special characteristics of places have to be taken into account. First, places communicate differently than products (Kavaratzis, 2008). As Lynch (1960) explains, people receive various signals from cities through buildings, public spaces, other people, and personal experiences. All these factors communicate something about the place and contribute to associations formed in people's minds. In line with Lynch (1960), Kavaratzis (2004) postulates that cities communicate in three ways: through the city itself, including the geographical aspects and architecture, as well as the city's or citizen's behavior (primary communication); second, with the formal communication through official channels such as all forms of advertising, branding, or public relations (secondary communication); and third through word of mouth reinforced by media and foremost by the residents and visitors (tertiary communication). Of course, all products or companies are affected by word of mouth, but for places such effect is particularly strong because the city *consists of* the people living in it (Braun, Kavaratzis, & Zenker, 2013).

Second, places are complex products. One's location cannot be seen separately from other locations within the place—hence the place offers not a single location but a bundle of locations. Consequently, the product for a business visitor in Frankfurt, for instance, partly overlaps with the product for the city's residents.

Third, the *place*, rather than the responsible government(s), is central to place branding; by extension, these governments are not the exclusive brand owners. In practice, various public and private stakeholders are actively involved in place marketing and branding (Braun, Kavaratzis, & Zenker, 2013; Van den Berg & Braun, 1999) and thus place branding cannot be separated from its political context (e.g., Van Ham, 2008). It is a subject of political decision making and cannot be equated with regular business practice.

The final challenge when dealing with place marketing is the variety of place "customers" and their diverse needs and desires. From a theoretical point of view, the main (broadly defined) target groups in place marketing are (1) visitors; (2) residents and workers; (3) business and industry; and (4) the export market (Kotler, Haider, & Rein, 1993). However, the groups actually targeted in recent marketing practice are much more specific and complex and differ not only in their perceptions of a place, but first and foremost in their needs and demands for a place (Zenker, 2011; Zenker & Beckmann, 2013). In place marketing practice, one of the most popular target groups in attracting new residents is the so-called *creative class* (Florida 2004, 2008). According to Florida, this group comprises the creative elite of a society, driving the economic growth in today's knowledge economy. Therefore, he designates two broad groups: a "creative core," such as artists or scientists developing the ideas and knowledge; and the "creative professionals," such as marketers, who build business models based on the creative core (for more job categories and examples see Table 1).

Richard Florida argues that these "creative people" are strongly attracted to cities that fulfill their need for openness and tolerance (Florida, 2008; see also Thomas & Darnton, 2006). In particular, Florida (2004) states that the creative core primarily seek tolerance and openness, whereas creative professionals seek self-enhancement via values such as achievement and power. Even though research has primarily showed no consistent results in this regard (e.g., Darchen & Tremblay, 2010; Hansen & Niedomysl, 2009; Zenker, 2009), and his concept of the "creative class" is hence controversially discussed in the place marketing literature (e.g., Hansen & Niedomysl, 2009; Hoyman & Faricy, 2009; Peck, 2005; Zenker, 2009), in practice there seems to be no shortage of interest in the target groups he forwards in his analyses (Peck, 2005; Zenker, 2009). Thus, practitioners of place marketing could potentially benefit from an improved understanding of the values a city or region should represent to attract members of the creative class. Following the call for a more *engaged scholarship* (Van de Ven & Johnson, 2006), this article seeks to answer "real" questions pertinent to place

marketing practitioners by testing their "working hypothesis" against theory and empirical data (Reibstein, Day, & Wind, 2009).

Practitioners Working Hypotheses

In order to demonstrate the use of polynomial regression and response surface method in marketing and to give answers to place marketing practitioners, several working hypotheses were tested. These are in line with the value congruence literature in other fields as outlined above (Cable & Edwards, 2004; Edwards & Cable, 2009; Shanock et al., 2010; Van Vuuren et al., 2007). Three primary questions are of relevance to place marketers within this field: (H1) whether value congruence determines (potential) residents' decisions to stay in or move to a place; (H2) whether (potential) resident target groups can actually be differentiated according to their values, and (H3) whether city slogans can communicate values and thus become effective by means of value congruence—leading to the following hypotheses:

H1: Higher value congruence between the value setting of an individual and the place of living leads to a lower desire to migrate.

H2: Target groups in place marketing represent different value configurations and can therefore be distinguished by their value configurations.

H2a: In comparison to common job classes and creative professionals, the creative core scores highest in the value dimension of openness.

H2b: In comparison to common job classes and the creative core, creative professionals score highest in the value dimension of self-enhancement.

H3: City slogans with higher value congruence lead to higher city brand preference.

STUDY 1

Participants

The study was conducted in Germany. To obtain a broad range of residents, participants were recruited online via a professional research panel (Sozioland). Altogether, 1257 participants completed the survey. The sample's mean age was 33.7 years (SD = 11.5) and women made up 41.2% of the sample. About 26% of the participants had children and 24.8% were married. The percentage of participants with an academic background (bachelor degree or higher) was 36.3%, and an additional 20.5% of the participants were students. According to the job categories defined by Florida as comprising the creative class, 40.7% of participants belonged to the creative core, 17.7% were creative professionals, and 41.6% were members of the common job classes.

Measures

To assess value configurations, the 21-item version of the Portrait Values Questionnaire (Schwartz et al., 2001) was employed. Each item consists of a brief description of a fictional person, focusing on the values that are most important in his or her life in general. Each respondent was asked to rate his or her perceived similarity to the fictional persons described in the questionnaire. Each of the 21 items corresponds to one of the 10 value types in the circumplex model of values. Thus, 10 value-type scores can be computed from the 21 similarity ratings. However, according to the circumplex structure, these 10 scores are systematically interrelated with each other, thus allowing aggregation on a higher level by combining the 10 value-type scores into two bipolar dimensions that span the circumplex structure. To this end, the European norms and equations for a two-dimensional value representation provided by Verkasalo, Lönnqvist, Lipsanen, and Helkama (2009) were used.

For this study the Portrait Value Questionnaire (PVQ) was used twice: to assess participants' personal values with the original question "To what extent is this person similar or not similar to you?" (personal value priority [PVP]) and to assess the values perceived as prototypical for the participants' city, with "To what extent is this person similar or not similar to a typical resident of your city?" (city value priority [CVP]). The stereotypical inhabitant is a good indicator for describing the perception of the place (e.g., hectic, lazy, or warm and friendly) because residents are the main part of the place (brand) and express the place (Braun, Kavaratzis, & Zenker, 2013; Freire, 2009). Answers had to be marked on a 5-point scale ranging from 1 (not similar at all) to 5 (very similar).

To determine participants' ultimate score on the dimensions, the raw scores were ipsatized because the personal importance of a value is usually defined relative to the importance of other values (Rokeach, 1973). Therefore, when ratings of value importance are compared across individuals or groups, it is crucial to correct for scale acquiescence by ipsatizing (Schwartz, 2003). Thus, in the present study, whenever value importance is compared across individuals or groups, the analyses are based on ipsatized scores. However, when testing within individuals, such as in tests of congruence effects, nonipsatized ratings were used.

To measure the outcome variable "intention to stay in a place or move," the study used two subscales of the Resident Migration Scale (ReMiS) by Zenker and Gollan (2010), "feeling home" and the "intention to leave."

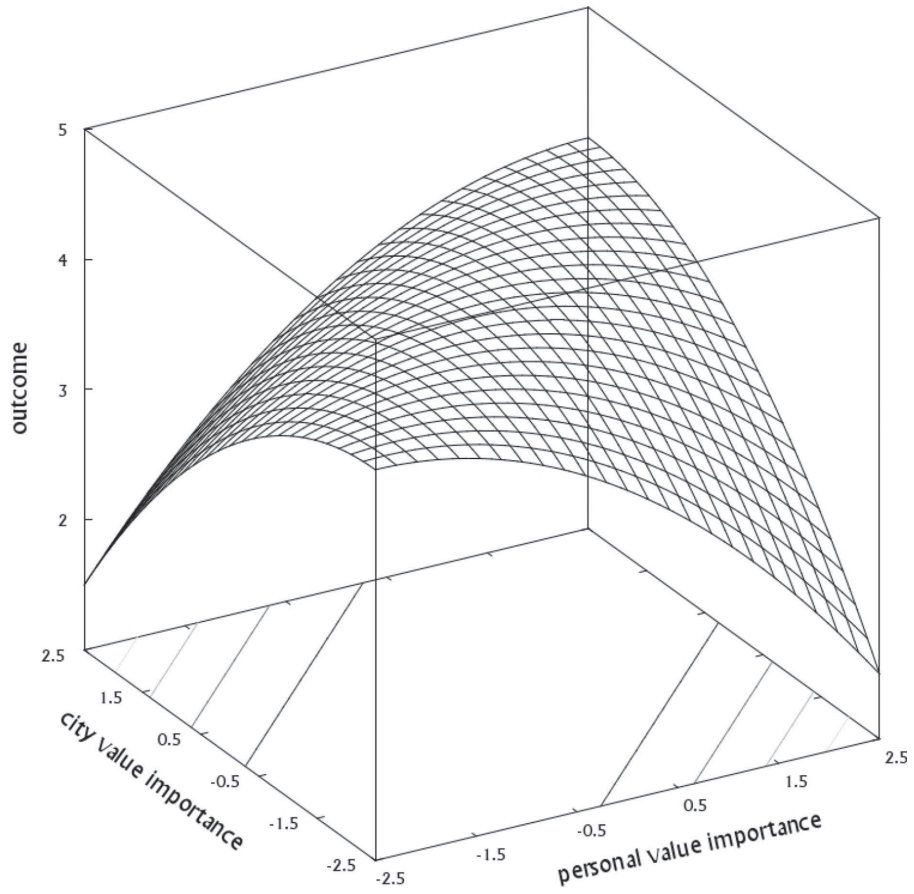


Figure 2. Idealized surface of a perfect congruence effect.

Finally, participants were asked for common demographic data and their actual profession for classification into Richard Florida's (2004) job classes.

Method

When dealing with fit measures, it is important to note that the field has evolved. Although simple or Euclidean distances were formerly used to assess fit, recent research has utilized more sophisticated mathematical techniques that circumvent the theoretical and statistical problems common to simpler fit measures (Shanock et al., 2010). In particular, there have been strong arguments in favor of the method of polynomial regression with a resultant responses surface, which markedly improves the statistical quality of results and allows for more fine-grained interpretations (for a detailed discussion, see Edwards, 1994; Edwards & Parry, 1993; Shanock et al., 2010).

The predictions on value congruence effects were tested using regression analyses based on response surface methodology with the two ReMis subscales as dependent variables. Value congruence effects on both levels of aggregation were examined: for the 10 different value domains (10 pairs of value-type scores) and on the aggregated level (two pairs of value dimension scores). Regression equations included PVP and CVP as predictors and one of the two subscales of the ReMiS (R_1 and R_2) as the outcome variable. Following response surface methodology, along with PVP and CVP, their quadratic terms and their interactions were also included as predictors in order to determine whether the effects of individual and stereotype values can be interpreted as a value congruence effect (Edwards, 1994; Edwards & Parry, 1993). Thus, the complete regression model for all estimations was:

$$R_i = b_{0i} + b_{1i} \times \mathrm{PVP} + b_{2i} \times \mathrm{CVP} + b_{3i} \times \mathrm{PVP}^2 + b_{4i} \times \mathrm{PVP} \times \mathrm{CVP} + b_{5i} \times \mathrm{CVP}^2 + e_i. \quad (1)$$

The coefficients obtained from these regression estimates were used to determine whether congruence of personal and city values had specific effects on the desire to migrate. As proposed by Edwards and Parry (1993), the regression weights were used to plot three-dimensional (3D) surfaces in which individual and stereotype values were perpendicular horizontal axes, and the dependent variable was the vertical axis. Figure 2 depicts a surface that represents an idealized value congruence effect (Edwards, 1994). The ridge of this surface runs exactly along the so-called

"congruence line," meaning that if personal and stereotype values are perfectly congruent, the outcome variable is maximized. The more the two independent variables differ in any direction, the lower the outcome, which is reflected by the downward curvature of the surface along the "incongruence line" that runs perpendicular to the congruence line.

Response surface methodology offers a means of examining the extent to which an empirically derived surface resembles the idealized surface in Figure 2 and thus reflects a congruence effect of the two independent variables. For a "perfect" congruence effect, three conditions must be met: (1) the surface is curved downward along the incongruence line. This is the case if the sum of the regression weights $b_3 + b_5$ is smaller than b_4, or $b_3 - b_4 + b_5 < 0$. (2) The ridge of the surface runs along the congruence line where both independent variables are equal. This requirement is fulfilled if the first principal axis of the surface has a slope of 1 and an intercept of 0 (Edwards, 2002; Edwards & Parry, 1993; the first and second principal axes describe the general orientation of the surface; see Edwards, 1994, for details on how to determine these axes). (3) The ridge of the surface should be flat along the congruence line, implying that congruence of both independent variables have the same effect on the outcome regardless of whether they are high or low. This is the case if the quantities $b_1 + b_2$ and $b_3 + b_4 + b_5$ both equal 0.

In order to test the first and third requirements, procedures for testing linear combinations of regression coefficients (Cohen & Cohen, 1983) were used. Because the second criterion involves nonlinear combinations of regression coefficients, it is mandatory to employ the bootstrap method (Efron & Tibshirani, 1993). Following the recommendations of Edwards (2002), 10,000 bootstrap samples were used to estimate confidence intervals for the slope and intercept of the surfaces' first principal axes.

Because these three requirements refer to the idealized surface shown in Figure 2, which represents a perfect congruence effect, failure to support all three conditions does not necessarily preclude a congruence effect. Following Edwards and Cable (2009), satisfaction of the first condition—downward curvature along the incongruence line—is a necessary requirement for a congruence effect and failure to support this requirement necessarily results in a rejection of the congruence hypothesis. However, if the second criterion is not met, there can still be a congruence effect. If the ridge of the surface is rotated from the congruence line—as indicated by a slope of the first principal axis unequal to 1—and they cross each other, support can be inferred for a congruence effect at the point of the intersection. Similarly, if the third condition is rejected—implying that the height of the surface varies along the congruence line—but the other conditions are met, there is still a congruence effect. In this case, however, the size of the congruence effect depends on whether the congruent independent variables are high or low.

Adopting the reasoning of Edwards and Cable (2009), the rules of testing congruence effects are as follows: If all three requirements were met, there is a clear support for a value congruence effect. If the first requirement was satisfied but the second was not, one has to examine how the ridge deviated from the congruence line. By examining the slope and intercept of the first principal axis and its interception with the congruence line, one can determine whether a congruence effect could be identified at particular levels in the observed value continuum. Failing to support the third condition was not considered grounds to reject a congruence effect.

Prior to analyses, the data were prepared in three respects: First, as recommended by Edwards (1994), the independent variables (i.e., PVP and CVP scores) were scale-centered by subtracting the midpoint of the scale, yielding a range from −2.5 (low value importance) to 2.5 (high value importance). However, because the value dimension scores, as computed with the European norms from the European Social Survey (Verkasalo et al., 2009), do not have a scale midpoint, these variables were *z*-standardized. Second, as Edwards (1994) points out, response surface methodology is very sensitive to influential observations, meaning that data should first be screened for outliers by estimating regression equations and identifying influential cases. Being careful to avoid distorting the data, a conservative criterion was used to exclude influential cases only if both their Cook's D and leverage values exceeded the high cutoff criteria suggested by Bollen and Jackman (1990). However, when applying these criteria to these data, no individual respondents flagged as extraordinarily influential in either of the regression estimations were found. Thus, all analyses reported in Study 1 are based on the total sample of $N = 1257$. Third, prior to analyses, the "intention to leave" subscale of the ReMiS instrument was reversed so that both outcome variables had the same polarity ("feeling home" and "intention to stay"). High scores reflect a high desire to stay in the current place, while low scores reflect a high desire to migrate.

For the second part, in order to investigate differences in value configurations between the two subgroups of the creative class, single-factor ANOVAs were used to test for differences in (ipsatized) value importance between groups, with Tukey post-hoc tests used to determine differences between specific pairs of groups.

RESULTS

Results concerning the first hypothesis on perceived value congruence and its effect on the desire to migrate are presented in Table 2. In three of 24 regressions, a "perfect" congruence effect was identified. In another 15 instances, condition 1—downward curvature of the surface—was satisfied but conditions 2 or 3 were not, implying that a congruence effect was obtained, albeit with the caveat that it was either limited to a specific

Table 2. Tests of Conditions for Value Congruence Effects, Total Effect Sizes, and Variance Explained in Study 1.

	ReMiS					
	Feeling Home			Intent to Stay		
Values	Cond.	R	R^2	Cond.	R	R^2
Power	123	0.11	0.01	123	0.08†	0.01
Achievement	1 - 3	0.19	0.04	1 - 3	0.21	0.04
Hedonism	12 -	0.18	0.03	1 - 3	0.19	0.04
Stimulation	1 - -	0.20	0.04	1 - 3	0.28	0.08
Self-direction	- 2 -	0.26	0.07	- 2 -	0.28	0.08
Universalism	- - 3	0.27	0.07	12 -	0.25	0.06
Benevolence	- 2 -	0.26	0.07	- 2 -	0.24	0.06
Tradition	12 -	0.16	0.02	123	0.11	0.01
Conformity	1 - 3	0.16	0.03	1 - -	0.20	0.04
Security	1 - 3	0.19	0.04	1 - 3	0.17	0.03
Conservation versus openness	1 - -	0.22	0.05	1 - -	0.25	0.06
Self-transcendence versus self-enhancement	- - -	0.23	0.05	1 - -	0.20	0.04

Note: $N = 1257$. The value names in the left column refer to the quadratic terms for value congruence (i.e., personal values, stereotype values, their squares, and their product). R and R^2 refer to effects and variance explained by the respective quadratic term. Figures 1–3 indicate that the respective conditions (1 = surface is curved downward along the incongruence line; 2 = ridge of the surface runs along the congruence line; 3 = surface is flat along the congruence line) were met; (-) means that a condition was not met. All effects are significant on a 5% level, except those marked with "†" (corrected for type I error by sequential Bonferroni procedure; Seaman, Levin, & Serlin, 1991). Specifically, the probability levels of the 12 tests in ascending order were listed and multiplied by the remaining number of tests in the list (i.e., smallest probability times 12, second smallest times 11, etc.). Only those corrected probability levels lower than 0.05 were considered statistically significant.

range of importance in the value continuum or not of equal strength throughout the entire continuum. Thus, for about 75% of the value domains, congruence effects were inferred, though they partially deviated from the idealized effect.

One striking result is that congruence effects are more prevalent in some value domains than in others. This result seems to reflect a stable pattern across both outcome variables. Value types belonging to the conservation pole (tradition, conformity, and security; cf. Figure 1) show congruence effects for all six regression estimates. On the contrary, only one congruence effect was obtained for the value types belonging to the self-transcendence pole (benevolence and universalism).

Figure 3a and b show the response surfaces for self-transcendence versus self-enhancement values, with "feeling home" and "intent to stay" as the respective dependent variables. Both surfaces are clearly rising toward the corner representing the importance of self-transcendence, which implies that feeling home and intending to stay are highest in persons with a high self-transcendence orientation when their city fits their values. However, on the opposite pole of the dimension, the outcome variables are not maximized when values are congruent: persons with a high self-enhancement orientation are highest in feeling home and intending to stay when their city's values fall in the middle range of the self-enhancement dimension. This is also reflected by the surface's first principal axis with a slope lower than 1 and a positive intercept. However, this deviation from the idealized surface is larger for feeling home (slope = 0.3; intercept = 2.5) than for intent to stay (slope = 0.6; intercept = 1.4) as the dependent variable, which reflects acceptance of condition 1 (and thus a congruence effect) only for intent to stay.

The second value dimension shows a similar result (Figure 4). For both outcome variables, condition 1 was fulfilled as demonstrated by the downward curvature of the surfaces along the incongruence line in Figures 5 and 6. Both surfaces are saddle-shaped, with outcomes maximized at the extreme ends of the bipolar continuum, that is, when personal and city values fall together in strong endorsement of either conservation or openness values. Furthermore, the ridge along the congruence line is slightly shifted as indicated by a negative intercept of the first principal axes (−2.4 for feeling home and −1.8 for intent to stay). Thus, outcomes are maximized when city values reflect a slightly stronger emphasis toward the openness pole, relative to the individual's values.

Generally, these results show that individual values, values of the stereotypical inhabitant of one's city, and their congruence effects jointly predict migration intentions, as predicted in Hypothesis 1. All relevant effects save for one are statistically significant on a 5% level. On average, the value-related variables account for 4.5% and 4.2% of variation in the subscales "feeling home" and "intent to stay," respectively. Because the two dimensional scores are almost independent from each other ($r = -0.20$; the dimensional scores are not orthogonal because they are based on an oblique rotation of principal components in order to fit the theoretical framework of the Schwartz' circumplex structure; cf. Verkasalo et al., 2009), together they explain approximately 10% of variation in the ReMiS subscales.

Interestingly, and in support of the methodology applied, congruence effects are found in the majority of analyses (especially in certain value domains); however, the joint effects of personal values and perceived values of the city are often more complex than a

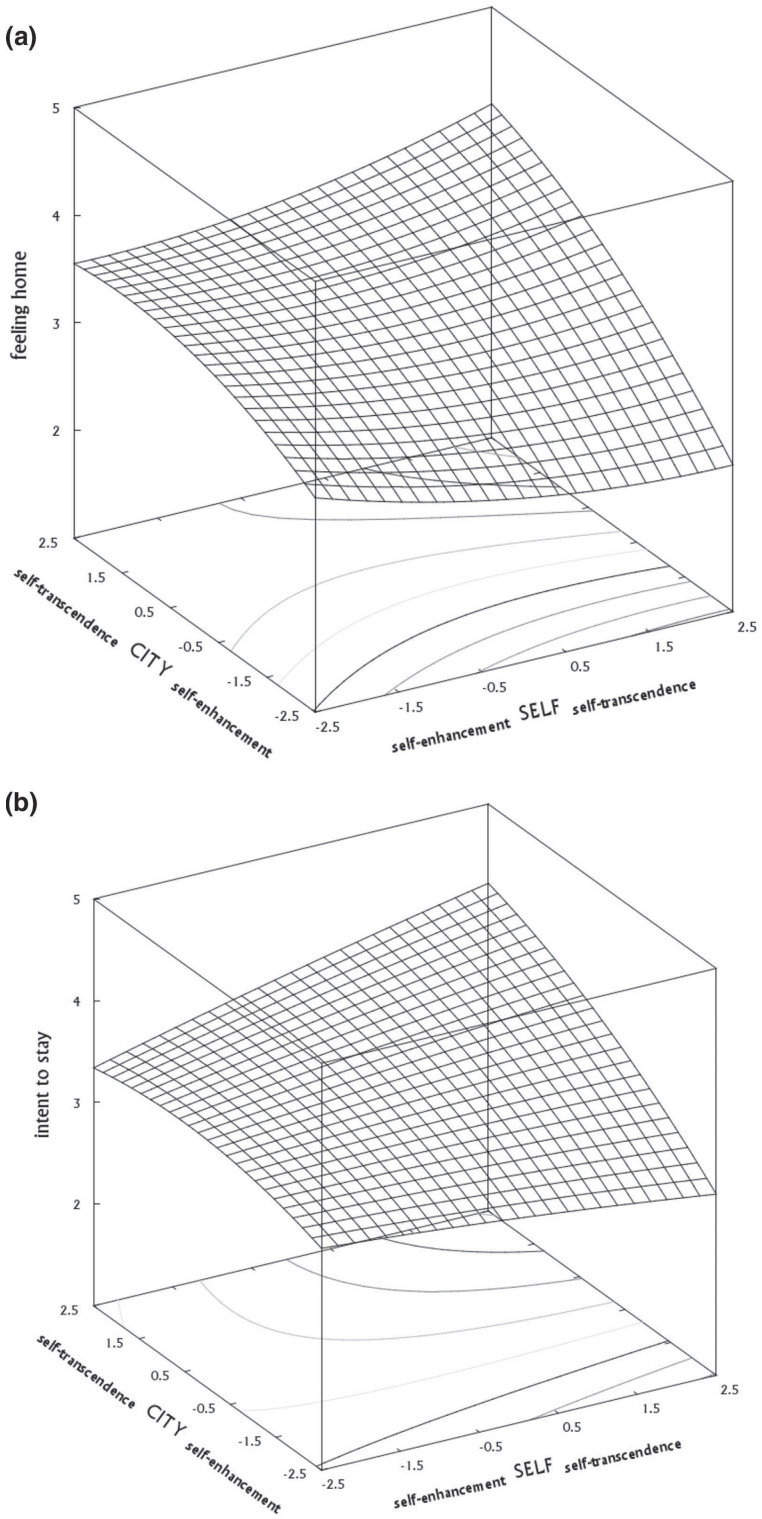


Figure 3. Response surface for self-transcendence versus self-enhancement values, with feeling home (a) and intent to stay (b) as outcome variable ($N = 1257$).

simple fit effect at all levels of the scale. This means that congruence effects are often found only in specific levels of preference or that the congruence effects are of different strengths depending on the level of preference. These irregularities cannot be detected by simple operationalizations of congruence-like difference measures, but only by polynomial analyses.

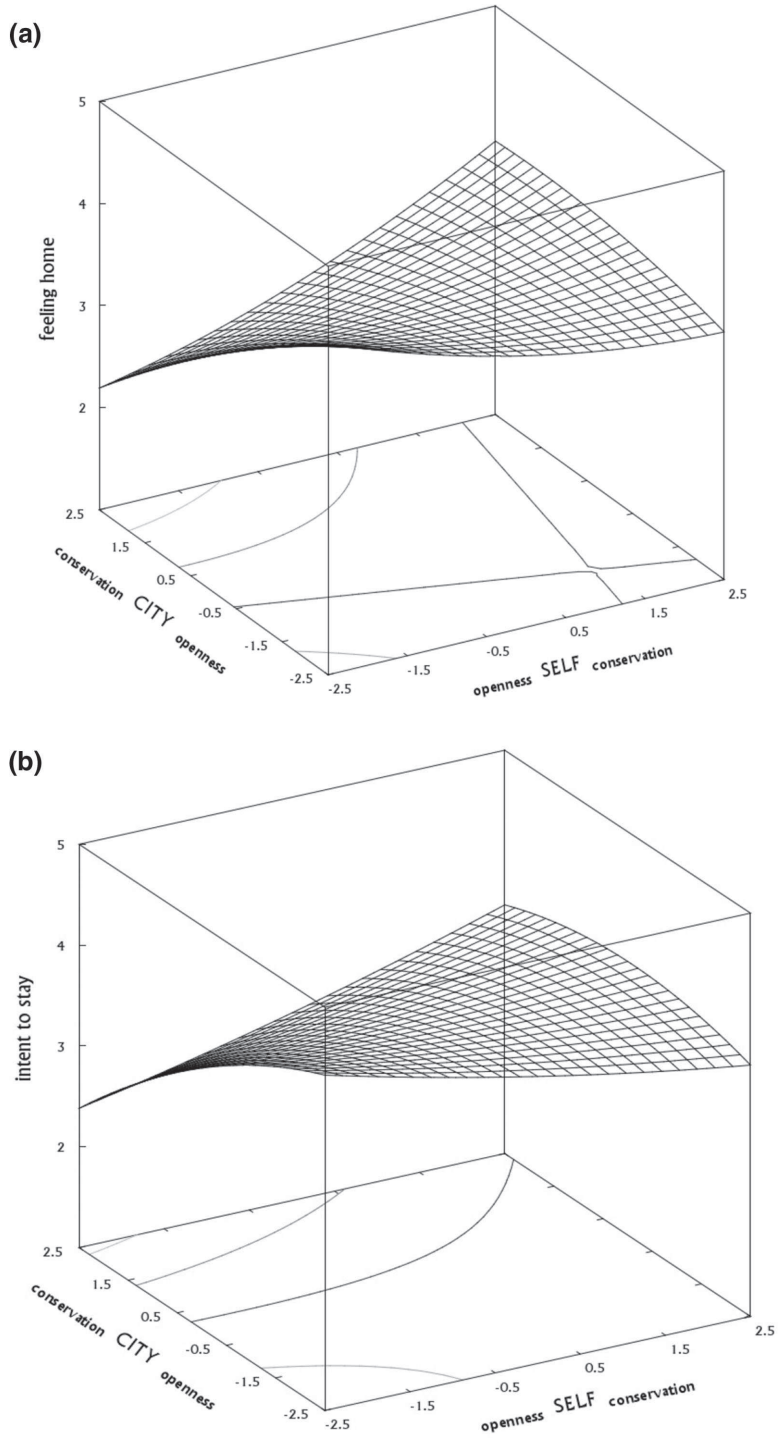


Figure 4. Response surface for conservation versus openness values, with feeling home (a) and intent to stay (b) as outcome variable ($N = 1257$).

Table 3 below shows the mean ipsatized value importance ratings in the three target groups related to Florida's definition of the creative class. Because they are ipsatized, the ratings can be compared across both value domains and groups.

Results show that there are significant differences in four of 10 value domains between the three groups posited by Florida's creative class theory: the creative core, the creative professionals, and the common professions. Yet, there is also a stable pattern in value

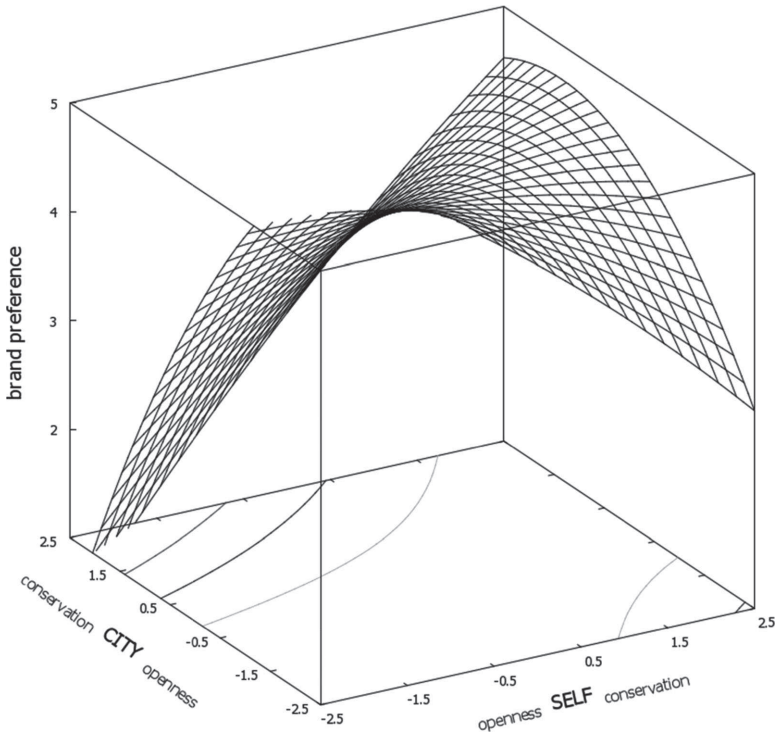


Figure 5. Response surface for conservation versus openness values; city brand preference as outcome variable ($N = 449$).

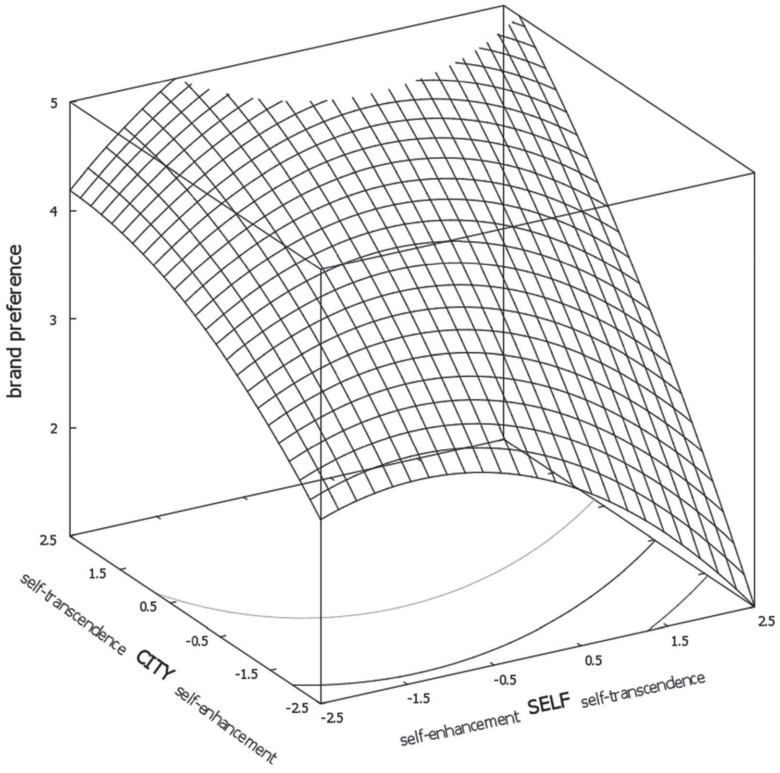


Figure 6. Response surface for self-transcendence versus self-enhancement values; city brand preference as outcome variable ($N = 449$).

Table 3. Differences between Relative Personal Value Importance (Ipsatized) by the Creative Class.

Values	Creative Core	Creative Professionals	Common Classes	*F*	Post-Hoc Differences (Tukey)/Effect Sizes
Power	− 0.64	− 0.42	− 0.68	8.40*	2≠1,3 (0.27/0.32)
Achievement	− 0.04	− 0.03	− 0.19	4.76	-
Hedonism	0.11	0.17	0.05	1.45	-
Stimulation	− 0.58	− 0.66	− 0.63	0.65	-
Self-direction	0.69	0.39	0.51	13.48*	1≠2,3 (0.38/0.24)
Universalism	0.66	0.50	0.62	3.65	-
Benevolence	0.90	0.80	0.82	2.88	-
Tradition	− 0.53	− 0.41	− 0.32	7.01*	1≠3 (0.23)
Conformity	− 0.62	− 0.53	− 0.46	3.26	-
Security	− 0.29	− 0.06	− 0.01	13.71*	1≠2,3 (0.25/0.32)
Conservation versus openness	− 0.14	0.11	0.09	8.46*	1≠2,3 (0.26/0.23)
Self-transcendence versus self-enhancement	0.03	− 0.20	0.05	5.45*	2≠1,3 (0.23/0.24)
N	511	223	523		

Note: For all ANOVAs $df_{between} = 2$, $df_{within} = 1254$; *F*-values marked with an asterisk indicate significant differences between groups on a 5% level (corrected for type I error by sequential Bonferroni procedure; Seaman, Levin, & Serlin, 1991); effect sizes in the right column are Cohen's *d* values for group differences.

preferences that is shared across all groups. For all three groups, the most important values are benevolence values, which promote interpersonal harmony and the welfare of friends and family, followed by universalism values that promote harmony and peace in the wider social world. All three groups also place a rather low priority on values that belong to the power, stimulation, and conformity domain, although there are slight differences in how much they emphasize those values. Despite the similarity in the general pattern of preferences, which reflects the global und universal pattern identified by Schwartz and Bardi (2001), there are specific aspects that markedly distinguish the groups and thus support Hypothesis 2. The creative core stands out in giving high priority to self-direction values (including openness and tolerance) and relatively low priority to values from the conservation pole of the circumplex model, such as tradition and security. The creative professionals stand out by prioritizing power values more than the other groups. In fact, they are the only group for which power values do not take last place in the mean value hierarchy. The common professions group is characterized by a relatively strong endorsement of values from the conservation pole (tradition and security). These differences across the three groups are also illustrated by their mean positions in the dimensional value space, as indicated by the two-dimensional scores: The creative core emphasizes values of the openness pole in contrast to the common professions group, whose mean position leans toward the opposite pole, conservation. The creative professionals group falls in the middle of these two groups on the first value dimension. However, on the second value dimension, their position is significantly shifted toward the self-enhancement pole, in contrast to the other two groups. Thus, both working Hypotheses 2a and 2b are supported by the data.

Although the study shows differences in value priorities for Florida's three groups defined by his creative class conception, it should be noted that these differences are moderate in magnitude, as indicated by the low effect sizes around $d = 0.20$ to $d = 30$. Importantly, the biggest effect size is obtained from the high emphasis on self-direction values by the creative core ($d = 0.24$ to $d = 0.39$) which is, from the perspective of Florida's theoretical framework, also the most intriguing characteristic of the creative core.

After illustrating the importance of value congruence in place marketing and showing the distinguished value configurations of the creative class, the question remains whether values should be used as marketing tools. Therefore, a second study was designed to investigate the positive effects of value congruence on place brand preferences. For this purpose, too, polynomial regression and response surface methodology offers a means to explore in detail whether value congruence between personal values and values conveyed by a city's image affects the preference for the city brand, and if so, whether there are differences between congruence of low levels and congruence of high levels. In applying the response surface approach, one may examine whether congruence maximizes brand preference (as theory would suggest) or whether deviations from congruence lead to an optimal result.

STUDY 2

Participants

The second study was also conducted in Germany. To obtain a heterogeneous sample, data were collected again in cooperation with the Sozioland research panel. The survey was constructed similarly to Study 1. The

mean age of the $N = 449$ participants was 34.1 years (SD = 12.3) and women made up 62.4% of the sample. About 29% of the sample had children and 26.1% were married. The percentage of participants with an academic background (bachelor degree or higher) was 31.6%, and an additional 20.9% of the participants were students.

Measures

As in Study 1, personal values were assessed with the PVQ by asking "To what extent is this person similar or not similar to you?" (Schwartz et al., 2001). This study concentrates on measuring participants' subjective fit with the hypothetical inhabitants of a fictitious city characterized by a brief city slogan (see below). By asking about the value orientation of the stereotypical resident of the fictitious city, the values that the city projects through its city slogans could be assessed. Thus, respondents were asked to read a city slogan and then take a minute to imagine what a typical person living in that city would be like. Afterwards, participants were presented with the 21 items of the PVQ, again, but this time with the question "To what extent is this person similar or not similar to the typical person living in this city?" (city value priority). As in Study 1, 10 value-type scores as well as two bipolar scores for a dimensional representation, for both individual and stereotype values, were obtained.

Each respondent was presented only one city slogan, randomly assigned from a pool of 10 slogans (see Table 4). The pool of slogans was sampled from 50 real examples of German city slogans, based on the following process: First, all slogans were classified with respect to the motivational content (or value type) they conveyed, as distinguished by the circumplex model of values. Three independent raters, all familiar with the motivational content of values according to the circumplex model, sequentially sorted all slogans, finally choosing only those slogans for which they all agreed about the value content. For the final pool, 10 slogans corresponding to the 10 motivational domains of the circumplex model were selected; in cases where more than one slogan seemed to represent the same value type, raters discussed and selected the most prototypical slogan.

To avoid unwanted priming effects from the names of real cities, the generic label "sample city" was used for all slogans. The dependent variable, brand preference, was measured using the 3-item scale provided by Simonin and Ruth (1998). Finally, the participants were asked for common demographic data.

Method

The methodology for investigating congruence effects between personal and stereotype values was adopted from Study 1. Regression analyses were conducted based upon response surface methodology proposed by Edwards and Parry (1993; Edwards, 1994). Again, there were 12 pairs of PVP and CVP scores, 10 for each motivational domain according to the circumplex model, and an additional two representing the core dimensions that span the motivational space of values. Thus, 12 regression equations were estimated, using the following model:

$$B = b_0 + b_1 \times \mathrm{PVP} + b_2 \times \mathrm{SVI} + b_3 \times \mathrm{PVP}^2 + b_4 \times \mathrm{PVP} \times \mathrm{SVI} + b_5 \times \mathrm{SVI}^2 + e. \quad (2)$$

The coefficients obtained from these regression estimates were used to plot 3D surfaces in which individual and stereotype values constituted perpendicular horizontal axes, and the brand preference was the vertical axis. In order to assess the extent to which the surfaces approach the idealized surface of a perfect congruence effect, the same logic and rules were applied as in Study 1.

Prior to the analysis, the data were prepared in two respects: First, independent variables were scale-centered by subtracting the midpoint of the scale, and the two-dimensional scores were z-transformed. Second, the data were screened for outliers by estimating regression equations and computing statistics for identifying influential cases. As in Study 1, the same conservative criterion was used and influential cases were excluded only if both their Cook's D and leverage values exceeded the high cutoff criteria suggested by Bollen and Jackman (1990). However, none of the respondents in the 12 regression estimations were flagged as being extraordinarily influential, so all cases were entered into the final analysis ($N = 449$).

Table 4. City Slogans and Related Value Communication.

Values	City Slogan
Power	Gold city, sample city
Achievement	Sample city—the engine of Germany
Hedonism	Enjoy sample city
Stimulation	Sample city—gateway to the world
Self-direction	Samples city freedom
Universalism	Sample city—the green city
Benevolence	Sample city—closer to the people
Tradition	Sample city—a city with a great tradition
Conformity	Polite sample city
Security	Sample city—clean and safe

RESULTS

The regression analyses of the congruence effects of personal and stereotype values on city preference show a stable pattern across value domains and thus support the last hypothesis. For nine of 10 value types, the first condition of a congruence effect was met (Table 5), meaning that the surface curves downward along the incongruence line. In five of these cases, the ridge of the surface also ran along the congruence line, thus

Table 5. Tests of Conditions for Value Congruence Effects, Total Effect Sizes, and Variance Explained in Study 2.

	Brand Preference		
Values	Cond.	R	R^2
Power	123	0.25	0.06
Achievement	123	0.19	0.04
Hedonism	1 - -	0.35	0.13
Stimulation	1 - -	0.33	0.11
Self-direction	12 -	0.44	0.19
Universalism	12 -	0.49	0.24
Benevolence	- 23	0.45	0.2
Tradition	123	0.24	0.06
Conformity	1 - 3	0.42	0.18
Security	1 - -	0.39	0.15
Conservation versus openness	1 - -	0.45	0.2
Self-transcendence versus self-enhancement	1 - -	0.44	0.19

Note: $N = 449$. The value names in the left column refer to the quadratic terms for value congruence (i.e., personal values, stereotype values, their squares, and their product). R and R^2 refer to effects and variance explained by the respective quadratic term. Figures 1–3 indicate that the respective conditions (1 = surface is curved downward along the incongruence line; 2 = ridge of the surface runs along the congruence line; 3 = surface is flat along the congruence line) were met; (-) means that a condition was not met. All effects are significant on a 5% level (corrected for type I error by sequential Bonferroni procedure; Seaman, Levin, & Serlin, 1991).

meeting the second criterion. For these value domains, the described city was best liked when the participant's value preference matched the value represented by the city. For four value domains, the first and the third condition were satisfied, so that congruence effects were not dependent on whether a particular value was rated as important or unimportant. For power, achievement, and tradition values, all three criteria were met, meaning their response surfaces were equivalent to the idealized surface.

Furthermore, the study shows congruence effects on the aggregate level. However, for both dimension scores only the first condition was met, implying that the effects deviated from the idealized surface shown in Figure 2. Figures 5 and 6 show the response surfaces for the two-dimensional scores.

For openness versus conservation values, the surface shows a clear downward curvature along the incongruence line, as required by condition 1. The surface is slightly saddle-shaped, with stronger congruence effects at the extreme ends of the continuum. The ridge is slightly shifted from the congruence line, indicated by a first principal axis with a slope lower than 1 (0.7) and a negative intercept (−1.0). Thus, condition 2 is not met. This means that, on the one hand, persons endorsing openness values also like city values best if they reflect openness values. On the other hand, persons valuing conservation values have a slight preference for city values that are likewise conservative but somewhat more openness-oriented than their own values. As the ridge of the surface is not flat but bent upwards at the extremes, the congruence effect is stronger for people with a pronounced value position on the openness-conservation continuum, compared to people with an intermediate position.

Similarly, the response surface for self-transcendence versus self-enhancement values shows a clear downward curvature along the incongruence line, as required by condition 1. However, brand preference is considerably higher when self-transcendence values are congruent than when self-enhancement values are congruent, as the ridge rises significantly toward the self-transcendence poles. Furthermore, the ridge is both shifted (intercept of the first principal axis = 2.2) and rotated (slope = 1.8) from the congruence line, meaning that a real congruence effect is only observed at the self-enhancement pole. In other words, city brands that reflect self-enhancement values attract people who strongly endorse self-enhancement values. However, this congruence effect is only weak since it is located in the lower part of the surface, indicating only mean brand preference. A look at the surface shows that even people high on self-enhancement prefer cities described by self-transcendence values rather than those described by self-enhancement values (following the rising surface at the y-axis). Nevertheless, they are the only ones who do not rate cities described by self-transcendence values with the maximum positive rating, as do all other persons in the personal values continuum. Generally, city brands that convey self-transcendence values appear to be evaluated very positively, as is also illustrated by the ceiling effect in the upper area of the y-axis.

Notably, the joint predictive power of personal values, city values, and their combined effects on the outcome variable was much greater in Study 2 than in Study 1. On average, the regression estimates for each value domain explain 13.6% of the variance. Acknowledging that the two-dimensional scores share only 4% variance, almost 40% of the variability in city preference was explained by the value variables.

DISCUSSION

Implications for Theory and Methods in (Place) Marketing

While values and value congruence have been intensively investigated in the organizational literature and—to some extent—also in marketing and consumer research, most traditional empirical methods in marketing reduce such information to overly simple congruence measurements. But value congruence can have different effects for different value dimensions and different levels of congruence, as the results show. First of all, congruence effects differ with the motivational content of the value domain: in both studies, value types belonging to the conservation pole (tradition, conformity,

and security) reliably show congruence effects, with only minor deviations. This means that matching values of the place of living with personal values maximizes outcomes, largely independently of whether value preference is high or low. On the contrary, for the value types belonging to the self-transcendence pole (benevolence and universalism) and for self-direction values, congruence effects were rather the exception: In these value domains, the postulate that value fit yields optimal results fails the empirical test.

Second, congruence effects—if found—do not necessarily reflect ideal-shaped congruence effects. Study 1 shows that intent to stay is highest in people with a strong self-transcendence orientation when their city fits their values. However, on the opposite pole of the dimension, the outcome variables are not maximized when values are congruent: persons with a high self-enhancement orientation are highest in intent to stay when their city's values fall in the middle range of the self-enhancement dimension. Similarly, in Study 2 a rather weak congruence effect was found for persons with self-enhancement values and city images conveying self-enhancement values. However, the response surface shows that even though a congruence effect was found, it was limited to persons strongly endorsing self-enhancement values and rating cities described by these very same values. Still, in absolute terms, this group of self-enhancers preferred city images described by self-transcendence values, although to a lesser extent than all other persons. Complex congruence patterns like these cannot be captured by simple difference measures of congruence, where responses are aggregated across the whole preference continuum. These simple measures of congruence might yield congruence effects without offering insights into the potentially complex nature of these effects (and the results suggest that this is the rule rather than the exception). For example, in the case that such simple methods yield an effect, it remains unclear whether said effect holds across the whole continuum but is rather weak, or whether it is strong but limited to specific levels of preference. At the same time, not finding an effect might be a false negative, either because the effect is in fact limited to specific levels of preference or because the effect is shifted or rotated, that is, in some way deviating from the ideal-type congruence curve. Simple congruence measures treat differential patterns like these as error variance. Polynomial regression and response surface methodology, on the contrary, breaks down this variance in components that are interpretable with respect to the research question at hand. As in regression or ANOVA analyses, these components of variance are not restricted to post-hoc interpretation and exploratory analyses: They may well be linked *a priori* with specific hypotheses, for instance, if a shifted or a rotated congruence effect is expected on theoretical grounds. In the present work, when investigating value congruence in place marketing, the empirical surfaces were tested against an ideal-type congruence surface because there was no theoretical rationale to assume other, more complex congruence effects. However, finding that congruence patterns often deviate from the ideal-type surface demands further theoretical work in order to understand these deviations and may stimulate additional empirical studies in order to identify possible moderator variables that may account for these deviations.

For this work, some of the deviations make sense on theoretical grounds: For example, finding not a single congruence effect for benevolence values in either of the two studies might reflect a ceiling effect: benevolence values are generally evaluated in such a positive way (cf. Table 3) that communicating benevolence values generally maximizes the output variables, largely independent from the perceiver's value orientation. This effect reflects that self-transcendence values represent the top of the pan-cultural value hierarchy identified by Schwartz and Bardi (2001). For future research, this result suggests that one should run congruence analyses separately for self-enhancement values on the one side and self-transcendence values on the other. Although they are tied with each other as two poles of the same dimension, if run together the ceiling effects of self-transcendence values might conceal the (weak) congruence effects of values on the other poles.

As another example, a second result might illustrate why polynomial regression and the response surface analyses can be a fruitful methodological approach in marketing. In all respective analyses of Studies 1 and 2, the ridge was found to be rotated and flattened in the area where persons high in conservations were plotted, implying that persons with a strong emphasis on conservation values have a slight preference for city values that are somewhat more oriented toward the openness pole. In Study 1, persons high on conservation values were rather insensible to their city's values when reporting their feeling home and intent to stay. On the contrary, people high on openness values strongly disapproved of their city when they perceived it as conveying conservative values. Although conservative people were not as "tolerant" with cities reflecting openness values in Study 2, the overall pattern was still comparable (as shown by the first principal axis with negative intercept and slope < 1 in all analyses). This pattern has strong implications for future research and marketing practice: apparently, conservatives are happy to perform a "value synthesis" and to integrate openness values in their self-concept, although they are, from a conceptual point of view, in conflict with their main value orientation (cf. Figure 1). On the contrary, persons high on openness values (which are, prototypically, the creative core as Table 3 shows) might have a strong need for a distinct value position that strictly excludes the competing pole. They might regard conservation values as "anti-values." Obviously, these are tentative explanations for the deviations in the response surface that need further empirical investigation. Nevertheless, the aim of this article was to make clear that polynomial regression and response surface methodology offers more fine-grained results for research in

value congruence in marketing than conventional statistical models. Satisfaction and dissatisfaction of any of the three conditions in the statistical response surface analysis can be an indicator for a theoretically significant deviation from the standard, ideal-type congruence pattern. Interpreting the coefficients (i.e., the sums of regressions weights, intercepts, and slopes of the first principal axis) may be facilitated by a graphical inspection of the 3D plotted surface. These fine-grained results may serve as a starting point for further theoretical elaboration and empirical investigation of the joint effects of personal and social characteristics on behavioral outcomes.

Both, research on value congruence as well the practice of designing marketing tools may benefit from the method described above. Yet, the aim is to also make a general case for the usefulness of polynomial regression and the response surface approach beyond the field of place marketing. The methodology might help with investigating the congruency of personal and social variables in other research domains, as well—for example, in the growing fields of employer branding (Barrow & Mosley, 2005; Edwards, 2010) and participatory branding (Hatch & Schultz, 2010; Ind & Bjerke, 2007), as well as research about word of mouth and social media (Berger & Schwartz, 2011). All these areas require strong consumer identification and are therefore susceptible to value communication and value congruence effects. In employer branding, for instance, it is believed that values of an organization (communicated in the employer brand) that are congruent with the employees' desired values lead to higher commitment and identification (Edwards, 2010). But it could also be assumed—in line with the findings—that different values and levels of congruence could have different effects. If some values work differently, or different groups (according to their needs) react differently on (in)congruence, polynomial regression and response surface methodology can be a powerful tool for further research on the identification of potential mediators and moderators.

Implications for Place Marketing Practice

Place marketing has received significant attention in recent years (Gertner, 2011; Lucarelli & Berg, 2011). Indeed, the popular books by Richard Florida (2004, 2008) on the creative class have been considered by many practitioners as an eye opener with regard to what the objective of place marketing should be: attract talent so that companies will follow. While this notion has caught on in practice, scholarship has lagged behind in providing insights into what tactics might be effective for this type of place management.

The present article provides theoretical and empirical arguments for the idea that value-based positioning can be quite effective. Values are central to identity, and thus can attract people to or repel people from places. Furthermore, these findings indicate that target groups can be differentiated according to value configurations, and that city slogans can be used to convey certain value configurations.

Thus, place marketers would do well to communicate values viewed as favorable by their target audiences. For example, to attract the creative core, place managers might attempt to convey the openness and tolerance of their place—as suggested in the original approach by Richard Florida. According to the results, with that strategy they would not even repel persons who do not belong to the creative class and who are more conservative in their value orientation. Meanwhile, in order to exclusively attract creative professionals (a crucial element of the creative class), place communication might also speak to the yearning for power and achievement. This strategy, however, would probably repel all other groups, since values from the opposite pole (self-transcendence values) are generally evaluated positively and have a far greater potential to attract people.

Of course, in the long term, communication alone cannot be effective unless it is supported by reality. Thus, place marketers would do well to take stock of the values their places actually embody and to promote cultural changes to better match the value configurations of their target demographics.

Limitations and Directions for Future Research

The present study has three main limitations: First, the effects in Study 1 (explained variance and effect sizes) were not particularly strong. However, as values refer to abstract principles and guidelines in life, smaller effect sizes are a common finding in value research (e.g., Kristof-Brown, Zimmerman, & Johnson, 2005; Verquer, Beehr, & Wagner, 2003). In this respect, the effect sizes in the second study are noteworthy. The use of fictitious cities, explained only through a value-oriented slogan, could be seen as an artificial design extrapolating clean effects of value communication. Thus, while the results make a strong case for the importance of values in place marketing communication, they should not be overstated.

On a related note, the approach of the second study (using fictitious city slogans alone) deliberately disregarded the complexity of a city. Thus, more research is needed to explore the effects of other communication tools such as image commercials, city brochures, and word of mouth through visitors and residents. This represents an exciting research avenue with the potential to examine how various place marketing initiatives might support or contradict each other. Additionally, even though the term "sample city" was used to avoid this effect, it was not checked if respondents recognized the city slogan and associated other predetermined values with it.

Finally, the present studies relied on the intention to stay and the feeling of home (Study 1) and brand

preference (Study 2) as dependent variables. Other dependent variables such as attachment (Lewicka, 2011) or citizen satisfaction (Zenker, Petersen, & Aholt, 2013) could have been of great use. Furthermore, both studies relied on self-reporting to measure the indirect effect of value congruence. For further validation of the results, it would be interesting to explore whether and to what extent satisfaction with a place or one's intention to leave a place actually translates into moving decisions (behavior). Additionally, mediators or moderators would be of great interest for a deeper understanding of value congruence in place marketing and marketing in general. Especially in the field of place marketing, personal traits or external factors (e.g., job or family bonds; see Powdthavee, 2008) could have a strong influence. However, it should be noted that such research would entail great complexity and would need to find ways to separate the effects of brand and value congruence from the myriad other factors that ultimately affect relocation decisions. That said, unraveling these factors and putting them into perspective toward each other with regard to their effect (size) might be a very valuable undertaking in itself.

Despite these limitations, the present studies underscore four important implications: (1) polynomial regression and response surface methodology constitute a valuable method for assessing congruence in the field of marketing; (2) some values need a value congruence to yield optimal results while others do not; (3) value congruence effects depend on different congruence levels; and (4) value congruence plays an important role in place communication for attracting talents.

REFERENCES

Aaker, J. L. (1999). The malleable self: The role of self-expression in persuasion. Journal of Marketing Research, 36, 45–57.

Anholt, S. (2010). Places—Identity, image and reputation. New York: Palgrave Macmillan.

Ashworth, G., & Voogd, H. (1990). Selling the city: Marketing approaches in public sector urban planning. London: Belhaven.

Barrow, S., & Mosley, R. (2005). The employer brand: Bringing the best of brand management to people at work. London: Wiley and Sons.

Berger, J., & Schwartz, E. M. (2011). What drives immediate and ongoing word of mouth? Journal of Marketing Research, 48, 869–880.

Bhattacharya, C. B., & Sen S. (2003). Consumer-company identification: A framework for understanding consumers' relationships with companies. Journal of Marketing, 67, 76–88.

Bollen, K. A., & Jackman, R. W. (1990). Regression diagnostics: An expository treatment of outliers and influential cases. In J. Fox & J. S. Long (Eds.), Modern methods of data analysis (pp. 257–291). Newbury Park, CA: Sage.

Brangule-Vlagsma, K., Pieters, R. G. M., & Wedel, M. (2002). The dynamics of value segments: Modeling framework and empirical illustration. International Journal of Research in Marketing, 19, 267–285.

Braun, E. (2008). City marketing: Towards an integrated approach. Doctoral dissertation. Rotterdam: Erasmus Research Institute of Management (ERIM).

Braun, E. (2012). Putting city branding into practice. Journal of Brand Management, 19, 257–267.

Braun, E., Kavaratzis, M., & Zenker, S. (2013). My city—My brand: The different roles of residents in place branding. Journal of Place Management and Development, 6, 18–28.

Cable, D. M., & Edwards, J. R. (2004). Complementary and supplementary fit: A theoretical and empirical integration. Journal of Applied Psychology, 89, 822–834.

Cohen, J., & Cohen, P. (1983). Applied multiple regression/correlation analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Erlbaum.

Darchen, S., & Tremblay D.-G. (2010). What attracts and retains knowledge workers/students: The quality of place or career opportunities? The cases of Montreal and Ottawa. Cities, 27, 225–233.

Dibley A., & Baker, S. (2001). Uncovering the links between brand choice and personal values among young British and Spanish girls. Journal of Consumer Behavior, 1, 77–93.

Edwards, J. R. (1994). The study of congruence in organizational behaviour research: Critique and a proposed alternative. Organizational Behavior and Human Decision Processes, 58, 51–100 (erratum, 58, 323–325).

Edwards, J. R. (2002). Alternatives to difference scores: Polynomial regression analysis and response surface methodology. In F. Drasgow & N. W. Schmitt (Eds.), Advances in measurement and data analysis (pp. 350–400). San Francisco: Jossey-Bass.

Edwards, M. R. (2010). An integrative review of employer branding and OB theory. Personnel Review, 39, 5–23.

Edwards, J. R., & Cable, D. M. (2009). The value of value congruence. Journal of Applied Psychology, 94, 654–677.

Edwards, J. R., & Parry, M. E. (1993). On the use of polynomial regression equations as an alternative to difference scores in organizational research. Academy of Management Journal, 36, 1577–1613.

Efron, B., & Tibshirani, R. (1993). An introduction to the bootstrap. New York: Chapman & Hall.

Feather, N. T. (1975). Values in education and society. New York: Free Press.

Florida, R. (2004). The rise of the creative class. New York: Basic Books.

Florida, R. (2008). Who's your city—How the creative economy is making where to live the most important decision of your life. New York: Basic Books.

Freire, J. R. (2009). Local people: A critical dimension for place brands. Journal of Brand Management, 16, 420–438.

Gertner, D. (2011). A (tentative) meta-analysis of the 'place marketing' and 'place branding' literature. Journal of Brand Management, 19, 112–131.

Hansen, H. K., & Niedomysl, T. (2009). Migration of the creative class: Evidence from Sweden. Journal of Economic Geography, 9, 191–206.

Hatch, M. J., & Schultz, M. (2010). Toward a theory of brand co-creation with implications for brand governance. Journal of Brand Management, 17, 590–604.

Hoyman, M., & Faricy, C. (2009). It takes a village—A test of the creative class, social capital, and human capital theories. Urban Affairs Review, 44, 311–333.

Ind, N., & Bjerke, R. (2007). Branding governance: A participatory approach to the brand building process. London: Wiley and Sons.

Kahle, L. R. (1983). Social values and social change: Adaptation to life in America. New York: Praeger.

Kahle, L. R., Beatty, S. E., & Homer, P. (1986). Alternative measurement approaches to consumer values: The List of Values (LOV) and Value and Life Style (VALS). Journal of Consumer Research, 13, 405–409.

Kavaratzis, M. (2004). From city marketing to city branding: Towards a theoretical framework for developing city brands. Journal of Place Branding and Public Diplomacy, 1, 58–73.

Kavaratzis, M. (2008). From city marketing to city branding: an interdisciplinary analysis with reference to Amsterdam, Budapest and Athens. Doctoral dissertation. Groningen: Rijksuniversiteit Groningen.

Kotler, P., & Levy, S. J. (1969). Broadening the concept of marketing. Journal of Marketing, 33, 10–15.

Kotler, P., Haider, D. H., & Rein, I. (1993). Marketing places: Attracting investment, industry, and tourism to cities, states, and nations. New York: The Free Press.

Kotler, P., Asplund, C., Rein, I., & Haider, D. H. (1999). Marketing places Europe: How to attract investments, industries, residents and visitors to European cities, communities, regions and nations. London: Pearson Education Ltd.

Kotler, P., Hamlin, M. A., Rein, I., & Haider, D. H. (2002). Marketing Asian places: Attracting investment, industry, and tourism to cities, states, and nations. Singapore: John Wiley & Sons (Asia).

Kristof, A. L. (1996). Person-organization fit: An integrative review of its conceptualizations, measurements, and implications. Personnel Psychology, 49, 1–49.

Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. Personnel Psychology, 58, 281–342.

Lewicka, M. (2011). Place attachment: How far have we come in the last 40 years? Journal of Environmental Psychology, 31, 207–230.

Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), The handbook of industrial and organizational psychology (pp. 1297–1349). Chicago, IL: Rand-McNally.

Lucarelli, A., & Berg, P. O. (2011). City branding: A state-of-the-art review of the research domain. Journal of Place Management and Development, 4, 9–27.

Lynch, K. A. (1960). The image of the city. Cambridge: MIT Press.

Maslow, A. H. (1954). Motivation and personality. New York: Harper.

Meglino, B. M., & Ravlin, E. C. (1998). Individual values in organizations: Concepts, controversies, and research. Journal of Management, 24, 351–389.

Mitchell, A. (1983). The nine American life styles. New York: Warner.

O'Leary, R., & Iredale, I. (1976). The marketing concept: Quo vadis? European Journal of Marketing, 10, 146–157.

Peck, J. (2005). Struggling with the creative class. International Journal of Urban and Regional Research, 29, 740–770.

Pike, S. D. (2012). Destination positioning opportunities using personal values: Elicited through the repertory test with laddering analysis. Tourism Management, 33, 100–107.

Powdthavee, N. (2008). Putting a price tag on friends, relatives, and neighbours: Using surveys of life satisfaction to value social relationships. Journal of Socio-Economics, 37, 1459–1480.

Reed II, A. (2002). Social identity as a useful perspective for self-concept-based consumer research. Psychology & Marketing, 19, 235–266.

Reed II, A., Forehand, M. R., Puntoni, S., & Warlop, L. (2012). Identity-based consumer behavior. International Journal of Research in Marketing, 29, 310–321.

Reibstein, D. J., Day, G., & Wind, J. (2009). Guest editorial: Is marketing academia losing its way? Journal of Marketing, 73, 1–3.

Rokeach, M. (1973). The nature of human values. New York: Free Press.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical test in 20 countries. Advances in Experimental Social Psychology, 25, 1–65.

Schwartz, S. H. (2003). A proposal for measuring value orientations across nations. Chapter 7 in the questionnaire development report of the European Social Survey. Retrieved December 10, 2010 from http://www.europeansocialsurvey.org/index.php?option=com_docman&task=doc_view&gid=126&itemid=80

Schwartz, S. H., & Bardi, A. (2001). Value hierarchies across cultures: Taking a similarities perspective. Journal of Cross Cultural Psychology, 32, 268–290.

Schwartz, S. H., Melech, G., Lehmann, A., Burgess, S., Harris, M., & Owens, V. (2001). Extending the cross-cultural validity of the theory of basic human values with a different method of measurement. Journal of Cross Cultural Psychology, 32, 519–542.

Seaman, M. A., Levin, J. R., & Serlin, R. C. (1991). New developments in pairwise multiple comparisons: Some powerful and practicable procedures. Psychological Bulletin, 110, 577–586.

Shanock, L. R., Baran, B. E., Gentry, W. A., Pattison, S. C., & Heggestad, E. D. (2010). Polynomial regression with response surface analysis: A powerful approach for examining moderation and overcoming limitations of difference scores. Journal of Business and Psychology, 25, 543–554.

Simonin, B. L., & Ruth, J. A. (1998). Is a company known by the company it keeps? Assessing the spillover effects of brand alliances on consumer brand attitudes. Journal of Marketing Research, 35, 30–42.

SINUS (2013). The Sinus-Milieus® in Germany 2011, SINUS Markt- und Sozialforschung GmbH. Retrieved February 2, 2013 from http://www.sinus-institut.de/en/

Sirgy, M. J. (1982). Self-concept in consumer behavior: A critical review. Journal of Consumer Research, 9, 287–300.

Stokburger-Sauer, N., Ratneshwar, S., & Sen, S. (2012). Drivers of consumer-brand identification. International Journal of Research in Marketing, 29, 406–418.

Sudbury, L., & Simcock, P. (2009). Understanding older consumers through cognitive age and the list of values: A U.K.-based perspective. Psychology & Marketing, 26, 22–38.

Tajfel, H., & Turner, J. C. (1986). Social identity theory of intergroup behavior. In W. G. Austin & S. Worchel (Eds.), The social psychology of intergroup behavior (Vol. 2, pp. 7–12). Monterey, CA: Brooks/Cole.

Thomas, J. M., & Darnton, J. (2006). Social diversity and economic development in the metropolis. Journal of Planning Literature, 21, 153–168.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). Rediscovering the social group. A self-categorization theory. New York, NY: Basil Blackwell.

Van de Ven, A. H., & Johnson, P. E. (2006). Knowledge for theory and practice. Academy of Management Review, 31, 802–821.

Van den Berg, L., & Braun, E. (1999). Urban competitiveness, marketing and the need for organizing capacity. Urban Studies, 36, 987–999.
Van Ham, P. (2008). Place branding: The state of the art. Annals of the American Academy of Political and Social Science, 616, 126–149.
Van Quaquebeke, N., Zenker, S., & Eckloff, T. (2009). Find out how much it means to me: The importance of interpersonal respect in employees' work values and organizational work practices. Journal of Business Ethics, 89, 423–431.
Van Vuuren, M., Veldkamp, B. P., de Jong, M. D. T., & Seydel, E. R. (2007). The congruence of actual and perceived person-organization fit. International Journal of Human Resource Management, 18, 1736–1747.
Vanolo, A. (2008). The image of the creative city: Some reflections on urban branding in Turin. Cities, 25, 370–382.
Verkasalo, M., Lönnqvist, J.-E., Lipsanen, J., & Helkama, K. (2009). European norms and equations for a two dimensional presentation of values as measured with Schwartz's 21-item Portrait Values Questionnaire. European Journal of Social Psychology, 39, 780–792.
Verquer, M. L., Beehr, T. A., & Wagner, S. H. (2003). A meta-analysis of relations between person-organization fit and work attitudes. Journal of Vocational Behavior, 63, 473–489.
Ward, S. V. (1998). Selling places: The marketing and promotion of towns and cities 1850–2000. London, New York: Spon Press.
Zenker, S. (2009). Who's your target? The creative class as a target group for place branding. Journal of Place Management and Development, 2, 23–32.
Zenker, S. (2011). How to catch a city? The concept and measurement of place brands. Journal of Place Management and Development, 4, 40–52.
Zenker, S., & Beckmann, S. C. (2013). My place is not your place—Different place brand knowledge by different target groups. Journal of Place Management and Development, 6, 6–17.
Zenker, S., & Gollan, T. (2010). Development and implementation of the resident migration scale (ReMiS): Measuring success in place marketing. In E. H. Witte & T. Gollan (Eds.), Sozialpsychologie und Ökonomie (pp. 156–172). Lengerich: Pabst Verlag.
Zenker, S., Petersen, S., & Aholt, A. (2013). The Citizen Satisfaction Index (CSI): Evidence for a four basic factor model in a German sample. Cities, 31, 156–164.

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