Need for Closure Effects on Affective and Cognitive Responses to Culture Fusion

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Abstract

This research examined how affective and cognitive responses to culture fusion, a specific type of culture mixing that features the blending of different cultures or parts thereof into a new entity, are influenced by individual differences in Need for Closure (NFC). Two studies showed that individuals high (vs. low) in NFC felt less favorable toward culture fusion (i.e., the affective response), both at an abstract level (i.e., society structure models; Study 1, $N = 191$) and at a more concrete level (i.e., food stimuli; Study 2, $N = 257$). In addition, high NFC individuals tended to assign culturally fused stimuli to one discrete culture, rather than acknowledging them as culturally hybrid (i.e., the cognitive response). Furthermore, mediation analyses showed that the relationships between NFC and responses toward culture fusion were mediated by Right-Wing Authoritarianism. These findings are interpreted in terms of the threat to epistemic security needs posed by culture fusion.

Keywords

culture fusion, culture mixing, culture copresentation, need for closure, right-wing attitudes

Almost a century ago, Lesser (1933) already described the “processes by which aspects or elements of two cultures mingle and merge” (p. ix), and also more recently, several scholars drew attention to the phenomenon of culture mixing (Hermans & Kempen, 1998; Morris, Chiu, & Liu, 2015). However, to date, empirical research regarding culture mixing is relatively scarce, leaving unclear whether different types of culture mixing would induce the same reactions, and how these reactions are determined by individual differences in cognitive–motivational variables and social–ideological attitudes. The present research addresses these issues in two studies by examining a model in which Need for Closure (NFC) influences individuals’ responses to one specific type of culture mixing, culture fusion, mediated by Right-Wing Authoritarianism (RWA).

Culture Fusion

We define culture fusion as the blending of different cultures or parts thereof into a new entity that cannot be assigned to one of the original discrete cultures (cf. Hermans & Kempen, 1998). As such, culture fusion can be differentiated from culture copresentation, which denotes the co-existence of

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different cultures. At the societal level, culture copresentation is consistent with the multiculturalism ideology, which is defined as a “policy of honoring differences with the goal of preserving different cultural communities within a society, valuing purity of traditions” (Morris et al., 2015, p. 636). As such, multiculturalism explicitly promotes the maintenance of the cultural heritage and the juxtaposition of different cultural characteristics of each ethnic/cultural group (Levin et al., 2012). In contrast, culture fusion allows for merging different cultures into a new form of culture, which does not necessarily remind people of the original cultures. Hence, culture fusion reflects the multiculturalism ideology, which proposes that “cultural influence on individuals is partial and plural and cultural traditions interact and change each other” (Morris et al., 2015, p. 634).

The distinction between whether different cultures are fused or rather maintained as separate constructs is also noted in the bicultural identity literature. Benet-Martínez and Haritatos (2005) proposed that whereas some bicultural individuals combine (cf. fuse) their cultures into a new, hybrid culture, others consider both cultures as separate frameworks and may even feel that they have to choose between both cultures. However, whereas the bicultural identity literature pertains to the experiences and outcomes of the individual when dealing with his or her personal bicultural identity (somewhat similar to the psychological acculturation literature; Berry, 1990), culture fusion refers to the general environmental phenomenon of cultures blending into a new entity.

Although exposure to culture fusion and exposure to culture copresentation may sometimes yield similar effects (see Chiu, Mallorie, Keh, & Law, 2009; Leung & Chiu, 2010), we advocate that it is important to distinguish between these two types of culture mixing. As we argue in the following, culture fusion is the most pervasive type of culture mixing in that it not only mingles different cultural elements but also forms a new entity. As such, it may incur effects on epistemic security different both in nature and in degree from culture copresentation.

Culture Fusion and Epistemic Security

Cultures are generally acknowledged to provide a knowledge framework, which in turn provides epistemic security (see, for example, Fu et al., 2007). In particular, culture serves as a system of meaning by providing a worldview that affords order, permanence, and stability (Dechesne, Janssen, & van Knippenberg, 2000). Consequently, culture fusion should diminish epistemic security, because it means that a person's worldview is subjected to change (cf. Hermans & Kempen, 1998). Although both culture copresentation and culture fusion seem to constitute a threat to epistemic security, we argue that they differ in the nature and in the degree to which they threaten epistemic security. In particular, we assert that in the case of culture copresentation, epistemic security is diminished by the simultaneous, but “separate” (side-by-side) presence of alternative epistemic frameworks (i.e., cultures). Yet, the epistemic frameworks, including one's own culture, still remain accessible in their original form (see Morris et al., 2015). In the case of culture fusion, however, epistemic security is also diminished by the presence of other cultures, but these alternative frameworks intermingle, resulting in a new epistemic framework (see Morris et al., 2015). As such, one could argue that whereas culture copresentation creates an environment that is threatening to epistemic security because it *adds* new, unfamiliar frameworks, culture fusion threatens epistemic security more directly because it *changes* existing frameworks, including one's own original framework. In terms of the maintenance of epistemic security, such change may be experienced as especially daunting, because it directly undermines the stability of its basis.

Need for Closure

Given the theoretical rationale that culture fusion threatens epistemic security, we argue that studying the role of NFC may deepen our insight into people's response toward culture fusion. NFC has been defined as the desire for “*an* answer on a given topic, *any* answer . . . compared to

confusion and ambiguity” (Webster & Kruglanski, 1994, p. 1049). NFC captures the need for epistemic security, comprising the inclination to “seize” readily available, familiar information to reach closure quickly, and to “freeze” the attained knowledge, to preserve the obtained closure, even in the face of new, contradictory information (Kruglanski & Webster, 1996). Whereas NFC can be influenced by situational factors, it also represents a stable, dispositional trait (Webster & Kruglanski, 1994) and is considered to be a basic determinant of people’s view on the social world (for an overview, see Roets, Kruglanski, Kossowska, Pierro, & Hong, 2015). Indeed, inter-individual differences in NFC play an important role in social perception (Kruglanski & Webster, 1996), conservatism (e.g., Onraet, Van Hiel, Roets, & Cornelis, 2011), group-based morality (Federico, Ekstrom, Tagar, & Williams, 2016), sexism (Roets, Van Hiel, & Dhont, 2012), prejudice toward ethnic or sociocultural minorities (Roets & Van Hiel, 2011a), and cultural conformity (Fu et al., 2007). Moreover, research by Kovic, Kruglanski, Pierro, and Mannetti (2004) on acculturation showed that high levels of NFC in immigrants are associated with a more “single-minded” approach to culture, making them turn to whichever *single* cultural reference framework (original or host culture) they feel is most capable of providing epistemic security, rather than trying to adhere to or integrate both cultures.

Building on the above research, we hypothesize that people high (vs. low) in NFC in particular will be negatively disposed toward culture fusion, exactly because it directly threatens epistemic security. Moreover, a key characteristic of high NFC individuals is to freeze and protect their existing knowledge structures, thereby discarding or neglecting information that does not fit within this structure (Kruglanski & Webster, 1996). We hypothesize that this strategy may also apply when confronted with specific culturally fused stimuli: High NFC individuals may seek to dismiss the fused nature of such stimuli, to protect the epistemic framework that a culture provides. Hence, they should be more inclined to categorize the stimuli as part of a discrete culture (thereby maintaining the epistemic clarity of distinguishable cultures), rather than acknowledge them as a fusion of cultures. Moreover, such assignment to a discrete culture will most likely entail assigning the fused stimulus to the “other” culture, to maximize maintenance of the purity and integrity of one’s own culture (see Yuki & Brewer, 2013).

Right-Wing Authoritarianism as a Mediating Variable

In the research tradition on NFC and its effects on expressions of cultural conservatism and prejudice, authoritarianism is often considered a key socio-ideological variable mediating these effects (Roets & Van Hiel, 2011a). Authoritarianism was originally described by Adorno, Frenkel-Brunswick, Levinson, and Sanford (1950) as a general “attitudinal syndrome”. In modern-day psychological research, it is generally operationalized in terms of RWA (Altemeyer, 1981), capturing the tendency to uncritical submission to authorities, conformity to social norms and tradition, and aggressiveness toward anyone or anything deviating from mainstream norms and values. Importantly, various scholars have advocated that particular ideological belief systems are adopted to satisfy people’s deeper psychological needs and motives, and that the NFC is an especially important underlying basis for authority- and tradition-based ideologies such as RWA (i.e., the motivated social-cognitive theory by Jost, Glaser, Kruglanski, & Sulloway, 2003; see also Roets & Van Hiel, 2011a). Indeed, RWA nurtures epistemic security needs particularly well because it endorses traditional, familiar opinions, aims for (societal) stability, and safeguards against change and uncertainty (see, Kossowska & Van Hiel, 2003). Importantly, the theoretical rationale for a causal relationship between NFC and RWA has also been corroborated by experimental research, demonstrating that situationally induced NFC elicits typical expressions of authoritarianism, such as the development of an autocratic leadership structure in groups (Pierro, Mannetti, De Grada, Livi, & Kruglanski, 2003), increased conformity (Kruglanski, Webster, & Klem, 1993), and the rejection of opinion deviates (Kruglanski & Webster, 1991). More recently,

also longitudinal research by De keersmaecker and colleagues (2016) confirmed the direction of this relationship, showing that individuals' level of NFC predicted levels of RWA one year later, beyond their initial levels of RWA.

Building on the established causal relationship between NFC and RWA and previous research that demonstrated a mediating role for RWA in NFC effects on sociocultural outcomes (e.g., Roets & Van Hiel, 2006), we hypothesize that RWA may also play a key role in the effects of NFC on individuals' reactions to culture fusion. In particular, because culture fusion directly threatens cultural tradition and security, the normative and protectionist ideology captured in RWA is likely to be a proximal determinant of how people react to culture fusion, and may as such be a concrete mediator for the effects of NFC.

In the following, we report two studies that examine the effects of NFC on individuals' responses to culture fusion, and whether these effects are mediated by RWA. In particular, we hypothesize that high levels of NFC, through RWA, will result in more negative attitudes toward culture fusion. In addition, NFC is expected to increase individuals' tendency to discard culturally fused stimuli by assigning them to a discrete culture, most likely the "other" culture, to preserve the purity of the own culture.

Study 1

In the first study, we investigate the relations of NFC with attitudes toward "societal" models at an abstract level (i.e., without specifying the cultures). Specifically, we examine the associations of NFC with attitudes toward a monoculture society model (i.e., no culture mixing), a multicultural society model (i.e., culture copresentation), and a polycultural society model (i.e., culture fusion). Because no measures were already available to assess people's attitudes toward these different modes of culture representation in society, we first developed a new measurement method and tested the reliability in a pretest sample before investigating the relationships with NFC and RWA in the main sample.

Method

Samples

Pretest sample. One hundred forty-four undergraduate students (70.1% women, $M_{\text{age}} = 18.97$ years, $SD_{\text{age}} = 2.41$) from a Belgian university participated in the pretest in return for partial course credit. Of the participants, 19.4% indicated that they had at least one parent of non-Belgian descent (including other Western-European countries).¹

Main sample. A total of 191 undergraduate students (82.2% women, $M_{\text{age}} = 20.44$ years, $SD_{\text{age}} = 3.26$) from a Belgium university, who volunteered to participate, completed the measures as part of a larger questionnaire. Of the participants, 6.3 % indicated to have an immigration background.

Measures

Attitudes toward different societal models. Participants in both the pretest and the main sample were presented with schematic representations and accompanying descriptions of three different models of how cultures can be represented in a society: monoculture, culture copresentation, and culture fusion (see Figure 1). For each of the societal models, participants rated seven attitudinal statements on 7-point Likert-type scales anchored by 1 (*strongly disagree*) and 7 (*strongly agree*). An item example is, "I would like to live in this type of society" (see online supplementary material).

Need for closure. NFC was measured in the main sample with the short 15-item version (Roets & Van Hiel, 2011b) of the revised NFC Scale (Roets & Van Hiel, 2007; original by Webster &

Figure 1. Societal models: (A) Monoculture, (B) Culture copresentation, and (C) Culture fusion.

Note. Original figure as presented to the participants was in color. Also, Monoculture, Culture Copresentation, and Culture Fusion were labeled *Monoculturalism*, *Multiculturalism*, and *Culture Mixing*, respectively. For sake of consistency of the concepts throughout the special issue, we used the former terms in the article.

Kruglanski, 1994). Items were measured on 6-point Likert-type scales anchored by 1 (*strongly disagree*) and 6 (*strongly agree*). An item example is, “I don’t like situations that are uncertain.”

Right-wing authoritarianism. RWA was measured in the main sample with 11 items (Altemeyer, 1981, see also Onraet et al., 2011) rated on 7-point Likert-type scales anchored by 1 (*strongly disagree*) and 7 (*strongly agree*). An item example is, “Obedience and respect for authority are the most important virtues children should learn.”

Results

Pretest analyses. Reliability analyses were conducted on the item set for each societal model separately, revealing Cronbach’s alphas of .86, .86, and .85 for attitudes toward the monoculture

Table 1. Variable Means, Standard Deviations, Cronbach's α and Correlations in Study 1 (Main Sample).

Variable	<i>M</i> (<i>SD</i>)	α	1	2	3	4
1. NFC	3.60 (0.67)	.84				
2. RWA	3.06 (0.83)	.80	.39***			
3. Attitudes to monoculture	3.43 (1.16)	.85	.20**	.17*		
4. Attitudes to culture copresentation	4.69 (1.03)	.85	-.17*	-.12	-.40***	
5. Attitudes to culture fusion	4.60 (1.28)	.90	-.19*	-.21**	-.07	-.08

Note. NFC = Need for closure; RWA = Right-wing authoritarianism.

* $p < .05$. ** $p < .01$. *** $p < .001$.

($M = 3.28$, $SD = 1.21$), culture copresentation ($M = 4.86$, $SD = 1.03$), and culture fusion model ($M = 4.69$, $SD = 1.15$), respectively. Attitudes toward the monoculture and the culture copresentation model were strongly negatively related ($r = -.37$, $p < .001$), whereas attitudes toward culture fusion were not significantly related to either culture copresentation ($r = .10$, $p = .256$) or monoculture ($r = -.14$, $p = .096$). Having established that the measurement method has sufficient reliability to assess responses to culture fusion, and that it distinguishes them from responses to culture copresentation and monoculture societal models, we examined the role of NFC and RWA on responses to culture fusion in the main sample.

Main analyses. Means, standard deviations, and Cronbach's alphas of all measures as well as their intercorrelations are reported in Table 1. NFC showed to be significantly related to attitudes toward each of the three society models. Specifically, respondents high (vs. low) in NFC showed more positive attitudes toward a monoculture society whereas they were more negatively disposed toward a culture copresentation and a culture fusion society. Similar patterns were found for the relationship between RWA and attitudes toward monoculture and toward culture fusion, but no significant relationship between RWA and attitudes toward a culture copresentation model was found.

Next, we tested a mediation model with RWA mediating the relationship between NFC and attitudes toward the different societal models. Mediation analyses were conducted with the PROCESS module developed by Hayes (2013). The results confirmed that RWA mediated the relationship between NFC and attitudes toward culture fusion (Total effect $B = -.36$, standard error [SE] = .14, $p = .010$; Direct effect $B = -.24$, $SE = .15$, $p = .108$; Indirect effect $B = -.12$, Boot $SE = .06$, confidence interval [CI]₉₅ [-.25, -.01]), whereas no such mediation pattern was found for monoculture (Total effect $B = .34$, $SE = .12$, $p = .006$; Direct effect $B = .27$, $SE = .13$, $p = .047$; Indirect effect $B = .07$, Boot $SE = .06$, CI ₉₅ [-.05, .19]), or culture copresentation (Total effect $B = -.25$, $SE = .11$, $p = .023$; Direct effect $B = -.22$, $SE = .12$, $p = .073$; Indirect effect $B = -.04$, Boot $SE = .05$, CI ₉₅ [-.15, .06]). The results of Study 1 provide evidence for our distinction between culture fusion and culture copresentation and support our hypothesis regarding the predictive value of NFC and the mediating role of RWA in responses to culture fusion.

Study 2

Having established the discriminate nature of culture fusion, Study 2 scrutinized the predictive value of NFC and the mediating role of RWA in responses to culture fusion. Study 2 extended the first study in two ways. First, instead of attitudes toward societal models, which refer to an abstract level, we investigated responses toward culture fusion at a more concrete level, using specific pictures of food that blends two gastronomical cultures. Second, we assessed not only the

attitudinal–affective response but also a cognitive response to culture fusion, operationalized as the degree to which respondents deny the stimuli as representing a fusion of different cultures.

Method

Samples

Pretest sample. The same pretest sample as in Study 1 was used.

Main sample. We recruited 257 participants on Amazon Mechanical Turk. Nine participants were removed from the sample due to their failure to correctly answer the response reliability checks² (see Oppenheimer, Meyvis, & Davidenko, 2009), yielding an effective sample size of 248 participants (59.3% women, $M_{\text{age}} = 38.78$ years, $SD_{\text{age}} = 12.89$). In the sample, 75.8% identified themselves as European American, 8.9% as African American, 6.9% as Asian American, 3.6% as Hispanic American, 1.6% as Native American, and 3.2% indicated “other” as ethnic background.

Measures. We presented participants in the pretest and the main sample with five images (i.e., advertisements, see online supplementary material) in which typical food from different cultures (Western and Eastern culture or Western and Arab culture) was fused into a single item, accompanied by a slogan. These five images showed a picture of (a) Peking duck pizza (slogan: “*Soon in Pizza Hut: The Peking Duck Pizza*”), (b) black-bun hamburger (“*Now available in selected Burger King’s around the world: the Japanese-style Kuro Burger. The hamburger owes its black color due to squid ink and bamboo charcoal*”), (c) Chinese duck pancakes (“*A tasty alternative for the traditional pancake: the Chinese Peking Duck Pancake*”), (d) green tea chocolate snack (“*Nestlé’s KitKat chocolate with Asian Green Tea Flavor*”), and (e) camel-meat hot dog (“*American Hot Dog with camel meat from the Mid-East*”).

Positive attitudes. For each stimulus, positive attitudes were measured with two general questions (“I would like to taste [name stimulus] on the picture” and “The mixing of the different cultures can be an added value for the product”), two positive emotions (“This food makes me feel [interested][enthusiastic]”), and two negative emotions (“This food makes me feel [uncomfortable][disgusted]”), which were reverse coded. All items were measured on 7-point Likert-type scales anchored by 1 (*strongly disagree*) and 7 (*strongly agree*).

General affective response. To obtain a general index of affect toward the fused food, participants were asked to rate how they felt about each stimulus on three dimensions: “*cold vs. warm*,” “*sad vs. happy*,” and “*negative vs. positive*,” measured on an 11-point semantic differential scale (ranging from 0 to 10).

Cognitive denial. Cognitive denial was operationalized as the tendency to deny the fused nature of the stimuli by assigning the stimuli to one discrete culture rather than acknowledging them as being culturally fused. For each stimulus, respondents were asked to indicate to what extent they felt that the food belongs to Eastern (or Arab) versus Western culture, on an 11-point Likert-type scale (ranging from 0 to 10, with 5 as the scale midpoint). The scale was anchored by “*100% Eastern [Arab]*” and “*100% Western*” at the respective poles, and a “*50% Eastern [Arab] / 50% Western*” anchor in the middle of the scale. Cognitive denial was quantified as the degree of deviation from the midpoint of the scale. Note that deviation in either direction is representative of cognitive denial, but to allow for insight into the dominant direction, we additionally also consider the original 11-point scale.

NFC and RWA. These measures were identical to Study 1.

Table 2. Variable Means, Standard Deviations, Cronbach's α , and Correlations in Study 2 (Main Sample).

Variable	<i>M</i> (<i>SD</i>)	α	1	2	3	4
1. NFC	4.07 (0.82)	.90				
2. RWA	3.89 (1.21)	.88	.27***			
3. Positive attitudes	4.09 (1.27)	.80	-.21**	-.22**		
4. Affective response	5.83 (1.87)	.76	-.19**	-.20**	.88***	
5. Cognitive denial	1.88 (1.26)	.77	.15*	.17*	-.15*	-.14*

Note. NFC = Need for closure; RWA = Right-wing authoritarianism.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Results

Pretest analyses. All measures for the responses to culture fusion showed high reliability. For the positive attitudes measure, the six attitude items for each of the five stimuli formed reliable scales with Cronbach's alphas ranging from .84 to .90. Combining the items across the different stimuli yielded an overall scale for positive attitudes toward culture fusion ($M = 4.18$, $SD = 1.00$) with a Cronbach's alpha of .92. For the general affective response measure, the three items formed a reliable scale for each of the five stimuli with Cronbach's alphas ranging from .86 to .94. Combining the items across the different stimuli yielded an overall measure of positive affect toward culture fusion ($M = 6.06$, $SD = 1.17$) with a Cronbach's alpha of .87. Cognitive denial, quantified as deviation from the scale midpoint, was calculated for each stimulus and averaged into a single index (ranging from 0 = *no deviation from the midpoint* to 5 = *maximal deviation from the midpoint*) with higher scores representing higher cognitive denial of culture fusion ($M = 1.99$, $SD = 1.02$). The scale had a Cronbach's alpha of .72.

Attitudes toward cultural fusion and the affective response were strongly positively related ($r = .84$, $p < .001$), whereas cognitive denial was not significantly related to either attitudes toward culture fusion ($r = .02$, $p = .821$) or the affective response ($r = .04$, $p = .674$).³

Main study. First, we examined the relation between NFC and the attitudinal and affective responses toward the fused food stimuli. Table 2 displays all means, standard deviations, Cronbach's alphas, and interrelations between the measures. In line with our expectations, NFC was significantly negatively related to the positive attitude scale and the general affect measure.

Next, we examined the relationship between NFC and cognitive denial, revealing a significant, positive relationship: Respondents high (vs. low) in NFC were more inclined to categorize the stimuli as belonging (primarily) to one of the two cultures, rather than consider it as a balanced mix of both cultures (see Table 2). In addition, the negative correlation ($r = -.23$, $p < .001$) between NFC and the plain 11-point cognitive response scale indicated that people high (vs. low) in NFC were more prone to attribute the fused stimuli to the non-Western culture than to the (own) Western culture.

Subsequently, we tested the model in which RWA mediates the relationship of NFC with attitudinal, affective, and cognitive responses to culture fusion. Similar to Study 1, mediation analyses were tested with PROCESS (Hayes, 2013). The results again supported the mediating role of RWA in the link between NFC and responses to culture fusion. In particular, RWA mediated the relationship of NFC with both attitudinal (Total effect $B = -.33$, $SE = .10$, $p < .001$; Direct effect $B = -.26$, $SE = .10$, $p = .010$; Indirect effect $B = -.07$, Boot $SE = .04$, $CI_{95} [-.16, -.01]$) and affective responses (Total effect $B = -.43$, $SE = .14$, $p = .003$; Direct effect $B = -.33$,

$SE = .15$, $p = .027$; Indirect effect $B = -.10$, Boot $SE = .04$, $CI_{95} = [-.23, -.02]$). In addition, RWA also mediated the relationship between NFC and cognitive denial (Total effect $B = .24$, $SE = .10$, $p = .016$; Direct effect $B = .18$, $SE = .10$, $p = .070$; Indirect effect $B = .05$, Boot $SE = .03$, $CI_{95} [.01, .16]$).

General Discussion

The present research delineated culture fusion from culture copresentation and subsequently aimed to address the recent call to investigate the cultural impact of globalization at the individual level (see Torelli, Chiu, Tam, Au, & Keh, 2011). To this end, we examined the impact of individual differences in NFC and RWA on people's responses toward culture fusion, both at an abstract and a concrete level.

Need for Closure: A Motivated Cognitive Guide in Reactions Toward Culture Fusion

Drawing on the research literature regarding the role of NFC as a basic trait that guides our perception of the social world (see Roets et al., 2015) and on the theoretical rationale that culture fusion raises ambiguity and threatens epistemic security, we hypothesized that NFC would determine how individuals respond to culture fusion. This hypothesis was first tested in a Belgian sample (Study 1) where we examined the relationships between NFC and attitudes toward a culturally fused society. The results demonstrated that people high (vs. low) in NFC indeed have more negative attitudes toward the cultural fusion society model. Subsequently, in a North American sample, Study 2 examined the effect of NFC on responses toward culture fusion at a concrete level (i.e., food stimuli). Corroborating the findings from Study 1, individuals high in NFC again showed a more negative disposition toward culture fusion.

Importantly, Study 2 showed that high NFC individuals also tend to protect their epistemic framework by dismissing the fused nature of the stimuli and instead assign the stimulus to one of the two discrete cultural categories. Such denial can be interpreted as an attempt to hold on to the epistemic security that a culture offers. Indeed, categorizing the fused stimuli as belonging to one of the two discrete cultures reduces ambiguity and hence may somewhat alleviate the threat to epistemic security. Although deviation from the midpoint in either direction denotes cognitive denial, it is noteworthy that people high (vs. low) in NFC were more likely to attribute the culturally fused stimuli to the foreign (i.e., non-Western) culture, rather than including it in the own culture. This observation is in line with Yuki and Brewer's (2013) claim that the reliance on culture to satisfy the need for epistemic security drives the motivated effort to maintain the purity and integrity of one's own culture.

Whereas Study 1 investigated attitudes toward culture fusion as well as culture copresentation and monoculture at an abstract level, Study 2 focused only on responses toward culture fusion of concrete food stimuli. This more narrow focus allowed us to assess these responses more elaborately and with multiple measures. Yet, one may argue that as a result, Study 2 is also more limited in scope because it provides no information on how people high in NFC respond to concrete stimuli that are monoculture (i.e., exclusive to one culture) or culture copresentation (i.e., stimuli from different cultures presented side-by-side). We acknowledge that this is a limitation of the second study. However, research by Cheon, Christopoulos, and Hong (2016) on culture and disgust may be most relevant and complementary in this regard. In particular, these authors presented participants with stimuli that depicted a symbol of only one culture (cf. monoculture), stimuli showing symbols of two cultures side-by-side (cf. culture copresentation), or stimuli in which symbols of two cultures were merged into a single "hybrid" symbol (cf. culture fusion).

Their research showed that especially for the fused stimuli, high (vs. low) levels of NFC result in a substantial increase in feelings of disgust. Hence, the present research, focusing on a broader range of response types but with a limited range of stimulus types, and the research by Cheon and colleagues (2016), using a broader range of stimulus types but focusing on only one specific emotion (i.e., disgust), yield convergent results regarding the influence of NFC and as such nicely complement each other.

Right-Wing Attitudes: A Social–Ideological Guide in Reactions Toward Culture Fusion

Various researchers have proposed models in which conservative social–ideological attitudes mediate the impact of NFC on how people respond to the social environment (see Roets et al., 2015). In this vein, we analyzed the mediating role of RWA in the relationship between NFC and responses toward culture fusion. The results confirmed the expected mediation both at the abstract (Study 1) and the concrete (Study 2) levels and for attitudinal, affective, and cognitive responses. In particular, high NFC leads to the endorsement of a culture-conservation ideology (i.e., RWA) to satisfy epistemic needs (see also Jost et al., 2003), which in turn leads to the disliking of culture fusion, as well as to an increased tendency to deny the fused nature of the stimuli rather than consider the stimuli as culturally hybrid. Importantly, the mediation through RWA indicates that people high in NFC do not merely dislike culturally fused food because of the unfamiliarity with the food, but especially because of the cultural contamination it represents.

The present research also extends and complements the research by Torelli and colleagues (2011) who acknowledged that ideological factors could play an important role in exclusionary responses toward culture mixing “through their associations with cognitive complexity” (p. 739) and called for future research in this regard. The present studies straightforwardly support this idea by demonstrating relevant associations between epistemic needs, RWA attitudes, and responses to culture fusion.

Interestingly, at the abstract level, RWA only mediated the relationship between NFC and attitudes toward the cultural fusion society model, but not the relationships with monoculture and culture copresentation. Apparently, RWA—referring to the desire to protect tradition and the sensitivity to cultural threat—is more directly appealed to when the existing epistemic framework (i.e., culture) is under threat of being “distorted” due to infiltration of another culture (as is the case with culture fusion) as opposed to situations where other epistemic frameworks are merely present without directly affecting the original framework (i.e., parallel cultures, as in culture copresentation). This differential mediation path confirms our view that although both societal models appear unappealing to people high in NFC, they may differ in the nature (and extent) of their threat to epistemic security.

Directions for Further Research

The present research supported the hypothesis that NFC affects how individuals respond to culture fusion. Interestingly, previous studies have shown that culture mixing may also affect people’s NFC. However, whereas Morris, Mok, and Mor (2011) found that culture mixing exposure increases NFC (at least in low identifiers with the “foreign” culture), Tadmor, Hong, Chao, Wiruchnipawan, and Wang (2012) reported decreased levels of NFC after exposure to multiple cultures. These opposing findings may suggest that the nature of the effects of culture mixing on NFC itself is relatively unstable and dependent on whether the specific context and manipulation was able to “break” the individual’s (cultural) defense mechanisms (cf., Tadmor et al., 2012 “unfreezing”). Future research may aim to integrate research on the effects of NFC on responses

to cultural threats (i.e., culture fusion and culture copresentation) with these studies that indicated that exposure to culture copresentation/culture fusion may affect people's NFC. For example, not only may the level of NFC determine how people respond when exposed to cultural fusion, the exposure itself (as well its magnitude) may also have effects on individuals' NFC, as such forming a recursive cycle.

As a second direction for future research, we believe it may be warranted to investigate whether the effects of NFC and RWA are moderated by the individual's own cultural background. Unfortunately, the limited number of respondents with a minority or mixed cultural background in the present studies did not allow for meaningful tests of this question. Intuitively, one could expect such differences in cultural background to play a role. However, the research by Kosic and colleagues (2004) has shown that high NFC immigrants tend to adopt a *single* cultural reference framework that provides epistemic security (either the original or the host monoculture), rather than trying to adhere to or integrate both cultures. Hence, also for people with a mixed cultural background, high levels of NFC may lead to a rejection of culture fusion.

Finally, it would be interesting to investigate how individuals respond to culture fusion between two "outgroup" cultures, without involvement of the own culture. Indeed, the research by Torelli and colleagues (2011) already demonstrated that for bicultural exposure, the effects do not require the own culture to be involved. In cases where two outgroup cultures are fused, we expect that the role of RWA will be less prominent because one's own cultural traditions, values, and identity are not at stake. However, previous work on NFC has demonstrated that, in addition to having higher levels of RWA (which explained some but not all of the NFC effect in our studies), people high in NFC also have a strong inclination to organize the social environment in clear and fixed social categories (i.e., holding essentialist beliefs about social categories) because this reduces ambiguity in the social world (see Roets & Van Hiel, 2011c). Hence, although fusion of two outgroup cultures may pose less of an immediate threat to the own culture, it may nevertheless still threaten epistemic security by undermining essentialist categorization. Consequently, one could expect that exposure to culture fusion without involvement of the own culture will also elicit negative responses in high NFC individuals, although possibly to a lesser extent.

Conclusion

Using two different methods to measure people's attitudinal-affective and/or cognitive responses to culture fusion, we demonstrated that dispositional NFC, through its relationship with RWA, determines affective and cognitive responses toward culture fusion, both at an abstract and a concrete level. These findings can be explained in terms of the threat that culture fusion poses to the epistemic security that cultures provides.

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Notes

1. Controlling for age, sex, and education did not affect any of the findings of the pretests, Study 1, or Study 2. Furthermore, none of the findings were affected by the omission or inclusion of participants

with a minority ethnic and/or cultural background, and their limited numbers did not provide sufficient statistical power to allow meaningful separate analyses (of main and/or interaction effects). Therefore, all reported results throughout the article are based on the full samples. The results with control variables are available on request with the first author.

2. The three checks were as follows: "Please, check number [five][two][three] for this control question."
3. The pretest phase also included the culture fusion measure at the abstract level (see Study 1), allowing to test and demonstrate that the culture fusion response at the abstract level was a significant predictor of attitudes ($\beta = .26, p = .002$) and affect ($\beta = .22, p = .008$) toward fusion at the concrete level, after controlling for monoculture and culture copresentation. No such pattern was revealed for cognitive denial ($\beta = .09, p = .263$).

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