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Emotional Suppression and Well-Being  
in Immigrants and Majority Group Members in the Netherlands

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### Abstract

We were interested in interethnic differences in emotional suppression. We propose a model in which suppression of specific emotional experiences (suppressive behaviors during interactions with others) mediates the link between emotional suppression tendency (intention to suppress emotions) and well-being, operationalized as mood disturbance, life-dissatisfaction, and depressive and physical symptoms. The sample consisted of 427 majority group members and 344 non-Western and 465 Western immigrants in the Netherlands. Non-Western immigrants scored higher on emotional suppression tendency and lower on well-being than the other groups. We did not find interethnic differences in suppression of specific emotional experiences. The full mediation model was supported in all groups. Interethnic differences in well-being could not be accounted for by differences in emotional suppression.

*Keywords:* Emotional suppression, well-being, immigrants, the Netherlands

### Emotional Suppression and Well-Being in Immigrants and Majority Group Members in the Netherlands

We are interested in emotional suppression and its link with well-being in different ethnic groups in the Netherlands. Emotional suppression is a mental control strategy in the emotion process (Frijda, 2005). Based on two streams in the emotion research, namely research on emotional suppression (Gross, 1999) and on emotional expression (Matsumoto, Hee Yoo, & Fontaine, 2008), we distinguish two aspects of emotional suppression: (1) the emotional suppression tendency (Gross) that refers to a general tendency to suppress the overt expression of emotions and (2) the suppression of specific emotional experiences (Matsumoto et al.) that refers to suppression of the overt expression of emotions within particular social contexts (interaction with familiar or unfamiliar people). High emotional suppression leads to a higher frequency of and sensitivity to depressive and anxious thoughts, which can lead to depression and anxiety (Wegner & Zanakos, 1994). Cross-cultural research confirms this link (Consedine, Magai, Cohen, & Gillespie, 2002; Ehring et al., 2010). Non-Western immigrants usually report higher levels of emotion suppression compared to majorities (Gross & John, 2003). Neuroimaging studies suggest that the emotion suppression tendency dampens emotion processing in non-Western immigrants, probably because they are socialized to down-regulate emotions (Murata, Moser, & Kitayama, 2012). In a study involving 32 cultures, Matsumoto et al. (2008) demonstrated that emotional expressivity was higher toward in-group members than to out-group members in all cultures. In line with state-trait models (e.g., Spielberger, 1988), we assume that the emotional suppression tendency (trait) influences the suppression of feelings elicited in specific situations (state) (Frijda, 2005; Gross, 1999). Although previous research confirms that both aspects of emotional suppression are related to well-being (e.g., Gross & John, 2003), there are no empirical studies, to our knowledge,

where both aspects of emotional suppression and well-being are jointly investigated in both immigrant and majority groups.

We tested if non-Western immigrants would have higher scores on emotional suppression tendency (Hypothesis 1), on suppression of specific emotional experiences (Hypothesis 2), and lower scores on well-being (Hypothesis 3) compared to the Western immigrants and Dutch majority group members. We tested the cross-cultural applicability of a model (Figure 1) in which suppression of specific emotional experiences is a mediator of the relation between emotional suppression tendency and well-being (Hypothesis 4).

### Method

#### Participants

Participants were recruited via the Tilburg Immigrant Panel, which is composed of a representative sample of immigrants and mainstream group members who participate in monthly internet surveys in the Netherlands. The panel is based on a true probability sample of households drawn from the population register (Scherpenzeel & Das, 2010). The Immigrant Panel is an independent part of the LISS panel of the MESS project (Measurement and Experimentation in the Social Sciences; [www.lissdata.nl](http://www.lissdata.nl)). Our sample consisted of 1,236 participants, with 344 immigrants originating from non-Western countries, such as Turkey and Morocco (45.3% male), 465 immigrants from Western countries, such as Germany and Belgium (43.4% male), and 427 Dutch majority members (47.1% male). We did not find significant differences in gender composition of the groups. Across all three samples, the age varied from 16 to 86 years. The non-Western group was significantly younger ( $F(2, 1236) = 53.78, p < .001, \eta_p^2 = .08$ ), had a lower education level ( $F(2, 1236) = 8.79, p < .001, \eta_p^2 = .01$ ), and had a lower monthly net income ( $F(2, 1236) = 14.79, p < .001, \eta_p^2 = .02$ ) compared to both the Western and Dutch group (see Table 1). Non-Western immigrants stayed significantly shorter in the Netherlands ( $M = 27$  years;  $SD = 12.62$ ) compared to Western

immigrants ( $M = 36$  years;  $SD = 18.21$ ),  $t(334) = -5.79$ ,  $p < .001$ .

### Measures

Questionnaires were administered in Dutch to the panel members. All items and data can be retrieved (after registration) from [http://www.lissdata.nl/dataarchive/study\\_units/view/277](http://www.lissdata.nl/dataarchive/study_units/view/277).

Emotional suppression tendency was assessed using the suppression subscale (4 items) of the Emotion Regulation Questionnaire (ERQ; Gross & John, 2003). A 7-point Likert scale was used ranging from 1 (*completely disagree*) to 7 (*completely agree*). An example of an item is “I keep my emotions to myself.”

A modified version of the Display Rule Assessment Inventory (DRAI; Matsumoto et al., 2008) was used to assess suppression of specific emotional experiences. We focused on eight basic positive and negative emotions (joy, contempt, guilt, anger, happiness, warmth, fear, and sadness) within two contexts: in interaction with familiar people and in interaction with unfamiliar people the participant does not know very well or not at all. There was a total of 16 items in four subscales: positive emotions during the contact with familiar/unfamiliar people, and negative emotions during the contact with familiar/unfamiliar people. An example of an item is “Think about a conversation with someone that you know very well where you felt joy. What did you do with this feeling?” Response categories ranged from 1 (*I expressed my feelings, but with more intensity than my true feelings*) to 5 (*I smiled only, with no trace of anything else, and hide my true feelings*). Due to a skewed distribution of the scale scores and due to very low frequency of response category 1 (4%), we merged the first and second response category into one.

Perceived dissatisfaction with life was assessed with the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). A 7-point, Likert response scale with anchors ranging from 1 (*strongly agree*) to 7 (*strongly disagree*) was used. An example of an

item is “In most ways my life is close to my ideal.”

In order to assess mood disturbance in groups, we used the Profile of Mood States (POMS; Dutch Short Version; Wald & Mellenbergh, 1990). The POMS consists of 5 subscales (anxiety, depression, anger, vigor, and fatigue) and the score of mood disturbance (27 items) is obtained by calculating the total score excluding items of the vigor subscale. A five-point Likert scale was used ranging from 1 (*not at all*) to 5 (*very much*).

Two subscales of the Brief Symptom Inventory (BSI; Derogatis, 1975) were used (17 items) to assess depressive and physical symptoms. Respondents were asked how much certain problems had distressed them during the past seven days. Each item was rated on a 5-point Likert scale, ranging from 0 (*not at all*) to 5 (*very much*). This scale was one-factorial.

All scales used in the current study were unifactorial with exception of DRAI where the four-factor structure was confirmed; scalar invariance of all scales was supported across all groups (CFA). Internal consistencies of all scales were satisfactory (range: .73-.96). We used in all analyses the mean scores for each scale.

### Results

#### Interethnic Differences in Emotional Suppression and Well-Being

We conducted a multivariate analysis of covariance to explore interethnic differences (three levels: non-Western immigrants, Western immigrants, and Dutch majority group members) in all psychological variables (see Table 1). We included age, education level, and net monthly income as covariates. Post-hoc tests revealed that the Dutch group scored significantly lower on emotional suppression tendency than both the non-Western and Western group,  $F(2, 1236) = 8.559, p < .001, \eta_p^2 = .01$  (Table 1).

As expected, all ethnic groups significantly differed from each other on dissatisfaction with life,  $F(2, 1236) = 12.202, p < .001, \eta_p^2 = .02$ . Additional post hoc tests revealed that the highest score was obtained in the non-Western group, followed by the Western group, while

the Dutch group showed the lowest mean. For both mood disturbance ( $F(2, 1236) = 29.506, p < .001, \eta_p^2 = .03$ ) and amount of depressive and physical symptoms ( $F(2, 1236) = 19.908, p < .001, \eta_p^2 = .02$ ), the non-Western group scored significantly higher than the Western group, which scored significantly higher than the Dutch majority group (Table 1).

Outcome variables were all moderately to strongly correlated in all ethnic groups with mean Pearson's  $r = .43$  (range: .41 to .45) for the dissatisfaction with life, and depressive and physical symptoms relationship,  $r = .37$  (range: .31 to .43) for the mood disturbance and dissatisfaction with life relationship, and  $r = .55$  (range: .50 to .59) for the mood disturbance, and bodily and physical symptoms relationship.

### **Emotional Suppression and Well-Being: The Mediation Model**

First, we tested the hypothesized model without mediator (the model of Figure 1 with suppression of specific experiences omitted) in a multigroup analysis using AMOS (Arbuckle, 2006). The structural weights model was the most restrictive model with a good fit (Schumacker & Lomax, 2004),  $\chi^2(51, N = 1236) = 72.077, p < .05; \chi^2/df = 1.413$  (recommended:  $< 5.00$ ), the Comparative Fit Index (CFI) was .989 (recommended:  $> .90$ ), and the Root Mean Square Error of Approximation (RMSEA) was .018 (recommended:  $< .08$ ). Higher scores on emotional suppression tendency were significantly associated with lower well-being in all groups.

Second, we tested the hypothesized mediation model of Figure 1 (we started with a full mediation model as the most parsimonious). We treated both suppression constructs and well-being as latent variables. Indicators of emotional suppression tendency were the four scale items; indicators of suppression of specific emotional experiences were the four subscales of the DRAI. Well-being was constructed based on three observed variables: mood disturbance, perceived life dissatisfaction, and depressive and physical symptoms. The structural weights model was the most restrictive model with a fair fit,  $\chi^2(146, N = 1236) =$

558.782,  $p < .001$ ;  $\chi^2/df = 3.827$ , CFI = .886, and RMSEA = .048 (see Table 2).

We found support for a model in which suppression of specific emotional experiences fully mediates the relations between emotional suppression tendency as predictor and well-being as outcome (see Figure 2). More emotional suppression tendency was associated with more suppression of specific emotional experiences in all groups. A negative, significant relation was found between suppression of specific emotional experiences and well-being.

We also computed the significance of the indirect effect of emotional suppression tendency on well-being related scales using bootstrapping. Although significant, the effect was small (-.13; 95% CI: -.18, -.08), leading to the conclusion that emotional suppression tendency is only weakly related to well-being if suppression of specific emotional experiences is taken into account. This pattern holds in all groups. The weak indirect effect of emotional suppression tendency on well-being implies that our model is fully mediated and that suppression tendency plays a major role in specific suppression, but is only weakly related to well-being when mediator is included.

### Discussion

We investigated interethnic differences in means and associations of emotional suppression tendency, suppression of specific emotional experiences, and well-being in immigrants and mainstreamers in the Netherlands. We found that the non-Western groups scored higher on emotional suppression tendency (Hypothesis 1) compared to all other groups. This confirms the view that members of non-Western cultures have a stronger tendency to suppress emotions, presumably because such emotions could disturb social relationships. This tendency may have been acquired early in life (Gross & John, 2003). However, ethnic groups did not significantly differ on suppression of specific emotional experiences subscale or on suppression of specific emotional experiences. Hypothesis 2 was thus not confirmed. We have observed before that differences between Dutch immigrant

groups and majority group members tend to be smaller in measures that are closer to actual behavior; for example, feelings of solidarity showed larger differences than actual sharing (Arends-Tóth & van de Vijver, 2007). Additionally, non-Western groups scored the lowest on well-being compared to all other groups (Hypothesis 3).

We found support for the model in which suppression of specific emotional experiences is a mediator of the relation between emotional suppression tendency and well-being (Hypothesis 4). The invariance of the model across ethnic groups makes it likely that the same underlying psychological mechanisms are involved. Suppression tendency could explain about 30% of the individual differences in suppression of specific emotional experiences, which implies that this aspect of emotional suppression is likely to be influenced by additional factors, such as personality traits. Our findings also imply that both aspects of emotional suppression explain some individual differences in well-being. However, cross-cultural differences in well-being do not seem to be related to either aspect of emotional suppression. The current study suggests that both aspects of emotional suppression are unlikely candidates to explain cross-cultural differences in well-being and that other factors not assessed here, such as discrimination, might be responsible for the interethnic differences in well-being. It can be concluded that our study found some support for the view that suppression of emotions has a negative impact on well-being. However, our study also showed that this relationship does not hold at ethnic group level. Differences in well-being across ethnic groups could not be accounted for by differences in suppression.

A limitation of this study is the use of self-reports of emotional suppression. This implies that we can only assess emotional suppression when people are aware of it and only if it can be verbalized. Therefore, longitudinal or experimental studies where emotional suppression is directly manipulated are recommended.

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Table 1

*Means, Standard Deviations (in Parentheses) per Ethnic Group, and Effect Sizes of the Group Differences (Results from MANCOVA)*

	Non-Western	Western Dutch	Dutch	Partial
Scale	Dutch		Majority	Eta
				Square
Age	40.67 (14.23) <sub>a</sub>	51.03 (15.39) <sub>b</sub>	49.31 (14.98) <sub>c</sub>	.08***
Education level	3.48 (1.69) <sub>a</sub>	3.93 (1.53) <sub>b</sub>	3.82 (1.51) <sub>c</sub>	.01***
Monthly income (euro)	1,252 (0-7,500) <sub>a</sub>	2,395 (0-9,000) <sub>b</sub>	1,574 (0-6,463) <sub>c</sub>	.02***
Emotional Suppression	3.86 (1.16) <sub>a</sub>	3.72 (1.26) <sub>a, b</sub>	3.52 (1.16) <sub>b</sub>	.01***
Tendency				
Suppression of Specific				
Experiences				
Unfamiliar positive	2.90 (.83)	2.91 (.80)	2.94 (.74)	.00
Unfamiliar negative	2.67 (.75)	2.51 (.67)	2.55 (.69)	.00
Familiar positive	3.52 (.64)	3.50 (.64)	3.59 (.52)	.00
Familiar negative	3.13 (.67)	3.10 (.65)	3.20 (.62)	.00
Dissatisfaction With Life	3.38 (1.28) <sub>a</sub>	3.07 (1.21) <sub>b</sub>	2.88(1.08) <sub>c</sub>	.02***
Mood Disturbance	1.86 (.73) <sub>a</sub>	1.63 (.64) <sub>b</sub>	1.53 (.53) <sub>c</sub>	.03***
Depressive and Physical	1.58 (.62) <sub>a</sub>	1.41 (.47) <sub>b</sub>	1.34 (.38) <sub>c</sub>	.02***
Symptoms				

*Note.* Education level varied from not having education at all (0) to university degree (6).

Means with different subscripts are significantly different (Bonferroni post hoc test).

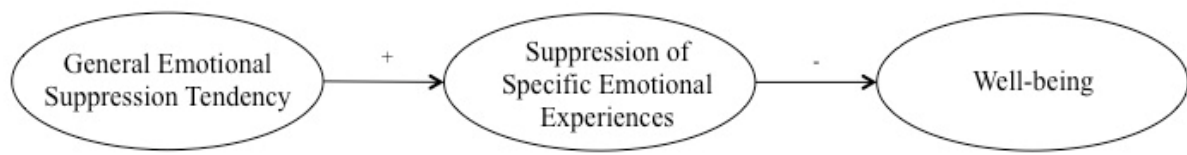
\*\*\*  $p < .001$ .

Table 2

*Results of the Multigroup Analysis*

	$\chi^2$ (df)	CFI	RMSEA [CI]	$\Delta\chi^2$	$\Delta df$
Unconstrained	519.294 (126)***	.891	.050 [.046-.055]	-	-
Measurement weights	550.278 (142)***	.887	.048 [.044-.053]	30.984*	16
<i>Structural weights</i>	<i>558.782 (146)***</i>	<i>.886</i>	<i>.048 [.044-.052]</i>	<i>8.503</i>	<i>4</i>
Structural residuals	597.259 (152)***	.877	.049 [.045-.053]	38.477***	6
Measurement	729.732 (174)***	.847	.051 [.047-.055]	132.473***	22
Residuals					

*Note.* Most restrictive model with a good fit is printed in italics. \* $p < .05$ . \*\*\* $p < .001$ .



*Figure 1.* Hypothesized model in the present study

## EMOTIONAL SUPPRESSION AND WELL-BEING

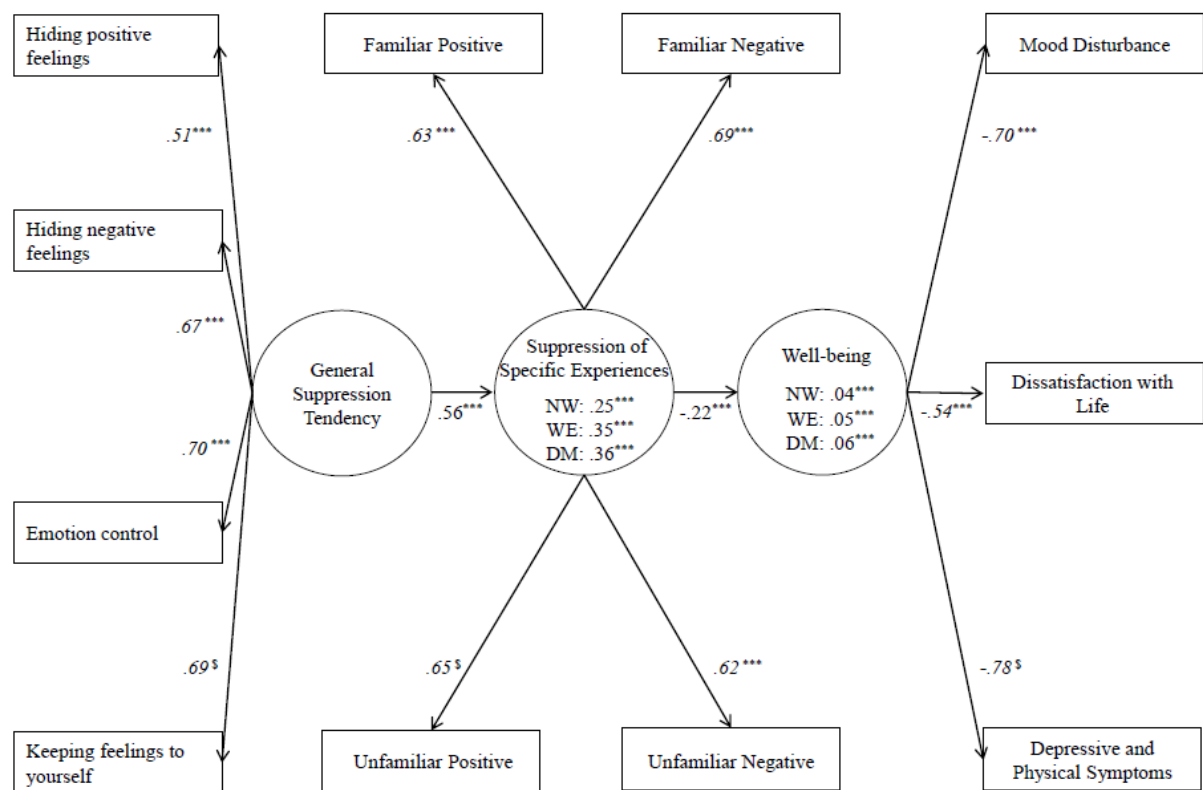


Figure 2. A model of general emotional suppression tendency, suppression of specific emotional experiences, and well-being

*Note.* Standardized regression coefficients are given next to the arrows. Factor loadings are printed in *italics*, next to the arrows. Numbers in circles of latent variables (suppression of specific experiences and well-being) represent proportions of variance explained.

NW = Non-Western Dutch, WE = Western Dutch, DM = Dutch majority group.

\*\* $p < .01$ . \*\*\* $p < .001$ . \$ Loading fixed at a value of 1 (or -1 in the case of well-being) in the non-standardized solution.