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CHAPTER 9

ENGLISH SUMMARY
People are motivated to behave in line with their sense of who they are, that is, their identity. This dissertation focused on ‘self-identity’ and ‘group-identity’ in relation to smoking. Self-identity refers to perceptions of the self as a person, which can be based on certain behaviors. For example, a strong smoker self-identity means that smoking as a behavior is important for how a smoker perceives himself. However, smokers may identify more strongly with quitting or nonsmoking (i.e., perceive quitting or nonsmoking as fitting with who they are) than with smoking. Group-identity refers to the part of a person’s identity that is based on membership in groups. For example, a smoker with a strong smoker group-identity identifies strongly with other smokers and perceives himself as a member of this group. In analogy with self-identity, smokers may identify more strongly with nonsmokers than with smokers. Self-identities and group-identities, together, define how smokers and ex-smokers perceive themselves in relation to smoking. Previous work showed that identity is important for smoking and smoking cessation, and that identity may change over time among smokers who quit smoking. However, several questions remained unanswered in the existing literature, and guided the studies that were presented in this dissertation.

First, the relative importance of smoker, nonsmoker and quitter self- and group-identities for smoking behavior was unknown, as these identities had not been studied jointly. Chapters 2, 3, 5 and 6 therefore examined how different identities that are relevant to smoking affect smoking behavior (Research Question 1).

Second, the process of identity change – both before and after a quit attempt – was largely unclear. Chapters 4 to 7 investigated how identity changes over time in smokers and ex-smokers, both spontaneously and in response to an intervention, and what factors affect identity change (Research Question 2).

Third, differences in smoking behavior and social environments between smokers with lower and higher socio-economic status (SES) led us to expect that identities in relation to smoking might differ with SES as well. However, little was known about possible effects of SES on identity processes. To this end, Chapters 2, 3, 6 and 7 examined whether associations between identity and smoking-related outcomes - as well as identity change processes - differ between people with lower and higher SES (Research Question 3).

A multi-method approach was employed, including cross-sectional and longitudinal studies; observational and experimental studies, and using quantitative as well as qualitative methods. Chapter 2 presented a longitudinal survey with a one-year follow-up, examining how smoker and nonsmoker self- and group-identities as well as SES predict intention to quit, quit attempts and responses to the Dutch smoking ban in hospitality venues. Chapter 3 showed the results of a cross-sectional study which investigated how SES influences smoking behavior, addressing both social support and identity factors. This was followed by an experimental study presented in Chapter 4 which aimed to
strengthen quitter self-identity through a writing exercise. Chapter 5 described the in-depth findings of a longitudinal qualitative study on identity change in the process of quitting smoking. Furthermore, the large-scale longitudinal study presented in Chapter 6 examined reciprocal relations between identity, intention to quit and smoking behavior among smokers and ex-smokers. Finally, Chapter 7 examined identity changes over time among smokers and ex-smokers, and whether these changes can be predicted by SES and psychosocial factors, within the same large-scale longitudinal study. The results of these studies are summarized below.

Research Question 1: How do different identities that are relevant to smoking affect smoking behavior?

The studies presented in this dissertation clearly showed that identity matters. In general, results showed that nonsmoker and quitter identities are more important for smoking and quitting behavior than smoker identities, and self-identities appeared to be more important than group-identities. Identity predicted intentions to quit, quit attempts, quit success and responses to the Dutch smoking ban in hospitality venues, even when controlled for other important factors such as nicotine dependence and years smoked.

Results of the quantitative studies that are relevant to this research question (Chapter 2, 3 and 6) showed that (controlling for other factors that may explain these associations) smokers who more strongly perceive themselves as nonsmokers or quitters have stronger intentions to quit, are more likely to attempt to quit and to quit successfully, and respond more positively to the Dutch smoking ban in hospitality venues. Smoker self-identity was less important, and only predicted intentions to quit in one study (Chapter 3). In addition, group-identity appeared less important than self-identity, although stronger identification with the group of nonsmokers was associated with stronger intentions to quit in one study (Chapter 3), and with stronger positive responses and weaker negative responses to the smoking ban in hospitality venues in another study (Chapter 2). No effects of identification with the group of smokers emerged.

In line with these quantitative results showing the importance of nonsmoker and quitter identities, the qualitative study (Chapter 5) suggested that smokers need to be able to picture themselves as nonsmokers in order to quit successfully. That is, only those participants who identified with nonsmoking, and increasingly perceived themselves as nonsmokers over time, reached stable abstinence two years later. In sum, results consistently showed that nonsmoker and quitter identities are more relevant than smoker identities for smoking behavior.

Research Question 2: How does identity change?

This dissertation further showed that identity changes in response to smoking behavior and social norms; that identity change appears facilitated by permeable identity bound-
aries, a continuous sense of self, and a sense of mastery of quitting; and that writing exercises may be used to change identity. This is described in more detail below.

We found that behavior impacts identity (Chapter 6 and 7), such that ‘who we are’ is partially based on ‘what we do’. Smokers and ex-smokers with higher scores on a ‘quit success’ measure (ranging from high frequency of smoking to longer duration of abstinence) showed increased quitter self-identity and decreased smoker self- and group-identities one year later. Furthermore, continuing smokers come to perceive themselves more strongly as smokers over time, whereas identification with smoking decreases among ex-smokers who successfully stay abstinent. Moreover, smokers and ex-smokers who perceive stronger pro-quitting social norms in their social environments increasingly perceive themselves as quitters over time, and ex-smokers who perceive stronger pro-quitting social norms identify less strongly with smoking over time.

The qualitative study (Chapter 5) suggested that identity change toward a nonsmoker identity is enabled by permeable identity boundaries, a sense of identity continuity and a sense of mastery of quitting. That is, the long-term quitters in this study -who showed identity change- did not perceive clear demarcated boundaries of identities in relation to smoking (e.g. they smoked when ‘not a smoker’). Moreover, they perceived themselves as essentially staying the same person in the process of change (identity continuity), and felt proud of the progress they had made and capable of quitting (mastery of quitting).

Finally, the experimental study (Chapter 4) provided some initial support for the use of writing exercises to strengthen quitter self-identity. That is, quitter self-identity appeared to be strengthened through a simple writing exercise, although the effect was small and marginally significant. Quitter self-identity was especially strengthened among smokers who linked quitting smoking to their lifestyle, and among those who wanted to become a quitter for health reasons or because of the positive aspects of quitting.

**Research Question 3: Do associations between identity and smoking-related outcomes and identity change processes differ with socio-economic status?**

This dissertation was the first to show that strength of smoking-related identities differs with SES (Chapter 2 and 7; Chapter 3 showed almost no differences in identity between SES groups). Smokers and ex-smokers with lower SES backgrounds perceive themselves in ways that make quitting more difficult, and smoker and quitter self-identities are more robust to change among lower SES smokers and ex-smokers.

Specifically, the results showed that in general lower SES smokers identify more strongly with smoking, and less strongly with nonsmoking, than middle and higher SES smokers. Similarly, lower SES ex-smokers identify more strongly with smoking than middle SES ex-smokers, but no significant difference was found between lower and higher SES ex-smokers. In addition, one of the studies suggested that the relation between nonsmoker self-identity and intention to quit is stronger among lower than higher SES smokers. In
other words, whereas lower SES smokers in general have weaker intentions to quit than higher SES smokers, their intention to quit becomes stronger when they identify more strongly with nonsmoking. However, this finding was not replicated in Chapter 3 or 6.

We also found that identity is more robust to change toward nonsmoking among lower SES smokers and ex-smokers. Smoker self-identity increases more strongly over time among lower SES smokers (vs. higher SES smokers), and smoking stays part of the self-concept for a longer time among lower SES ex-smokers (vs. higher SES ex-smokers). Similarly, lower SES ex-smokers have more difficulty to come to perceive themselves as quitters.

Conclusions and implications

Three main conclusions can be drawn from the findings of the studies that were presented in this dissertation. First, results showed that nonsmoker and quitter identities are more important than smoker identities for intentions to quit, quit attempts, (long-term) quit success and responses to the Dutch smoking ban in hospitality venues. In addition, self-identities seemed more important than group-identities. Second, identity changes in response to smoking behavior and social norms, and identity change is facilitated by permeable identity boundaries, a continuous sense of self, and a sense of mastery of quitting. Third, lower SES smokers and ex-smokers identify more strongly with smoking - and lower SES smokers identify less strongly with nonsmoking - than their higher SES counterparts, and in lower SES groups identity is more resistant to change.

Based on these findings, we recommend that identities associated with new behavior, in this case as nonsmokers or quitters, be incorporated in theories on identity as distinct from current identities, in this case as smokers. Similarly, research on identity and smoking cessation should examine quitter and nonsmoker identities in addition to smoker identities. In addition, the results of this dissertation call for interventions that facilitate identification with quitting and nonsmoking among smokers and ex-smokers, as these are likely to contribute to successful smoking cessation. Future work should therefore strive for the integration of this new knowledge about smoking and identity into smoking cessation interventions. Although all smokers may benefit from such identity-based interventions, efforts to increase identification with nonsmoking and quitting should be aimed particularly at lower SES smokers and ex-smokers.

In sum, this dissertation showed that 1) nonsmoker and quitter self-identity are important for smoking behavior, 2) that smoking-related identities can change and 3) that socio-economic status plays an important role in how smokers and ex-smokers see themselves in relation to smoking, and in how their identity changes over time. It is hoped that this dissertation contributes to the development of identity-based interventions that help smokers who wish to quit smoking to do so successfully and enduringly.