Published in final edited form as:

J Health Psychol. 2015 April ; 20(4): 438–445. doi:10.1177/1359105313502694.

Lay theories of smoking and young adult nonsmokers' and smokers' smoking expectations

Caroline C Fitz^{1,2}, Annette Kaufman², and Philip J Moore¹

¹The George Washington University, USA

²Tobacco Control Research Branch, Behavioral Research Program, Division of Cancer Control and Population Sciences, National Cancer Institute, USA

Abstract

This study investigated the relationship between lay theories of cigarette smoking and expectations to smoke. An *incremental lay theory of smoking* entails the belief that smoking behavior *can* change; an *entity theory* entails the belief that smoking behavior *cannot* change. Undergraduate nonsmokers and smokers completed a survey that assessed lay theories of smoking and smoking expectations. Results demonstrated that lay theories of smoking were differentially associated with smoking expectations for nonsmokers and smokers: stronger incremental beliefs were associated with *greater* expectations of trying smoking for nonsmokers but *lower* expectations of becoming a regular smoker for smokers. Implications for interventions are discussed.

Keywords

lay theories; smoking expectations/intentions

Globally, tobacco use is the second leading risk factor for death and disability-adjusted life years (Lim et al., 2012). In the United States in particular, it is the leading cause of preventable disease and death, with 8.6 million people living with a serious tobacco-related illness and 450,000 premature deaths caused annually by cigarette smoking [US Department of Health and Human Services (HHS), 2012]. Understanding factors associated with smoking is critical for reducing the negative health burden of tobacco, especially among young adults, as one in three people under the age of 26 years smoke cigarettes and 2500 occasional smokers under 26 become regular smokers each day (HHS, 2012). Smoking expectations, or individuals' beliefs about whether they will or will not smoke, consistently predict future smoking behavior beyond other psychosocial variables among this age group (e.g. Pomery et al., 2009). The present study introduces and examines a theoretical construct, lay theories of smoking (LTS), as a correlate of smoking expectations among young adult nonsmokers and smokers.

Lay theories refer to the core assumptions people make regarding the extent to which human attributes (e.g. personality) are dynamic and changeable or static and fixed (Dweck et al., 1995). Dweck et al. proposed a distinction between an *incremental theory*—the belief that a given characteristic is flexible and can be cultivated over time—and an *entity theory*—the belief that a given characteristic is stable over time and not amenable to efforts for change. In addition to being unrelated to personality traits (Spinath et al., 2003), lay theories are also domain specific. For example, a person's lay theory about the malleability of intelligence may not be the same as his or her lay theory regarding the stability of personality. Incremental and entity theories were conceptualized originally to represent two distinct categories (Dweck et al., 1995), yet they are often measured and more recently thought to exist on a continuum of beliefs regarding the plasticity of attributes ranging from entirely changeable to utterly rigid (e.g. Blackwell et al., 2007).

Self-efficacy, or the extent to which people believe they are personally able to perform or control a given behavior (Bandura, 1997), is a theoretically related but distinct construct demonstrated to prospectively predict changes in smoking behavior (Cupertino et al., 2012). Lay theories are associated modestly with such control beliefs (Dweck et al., 1995): because incremental theorists believe attributes can change while entity theorists believe attributes are fixed, the former are somewhat more likely to believe they have greater control over personal outcomes relative to the latter. However, self-efficacy is specific to the individual (e.g. "I think I can change my smoking behavior") whereas lay theories are broader and focused on the flexibility of a given characteristic *across* individuals (e.g. "I think that, for most people, once they start smoking, they can never stop"). Hence, they embody two separate constructs, which is why they are correlated only some of the time (Dweck et al., 1995).

Lay theories have ramifications for motivation and behavior. In the face of setback, incremental theorists make fewer helpless attributions for poor performance, report being more motivated to put forth effort to improve future behavior, and subsequently perform better relative to entity theorists (for a review, see Dweck, 2012). These findings have face validity; if people perceive change is possible (i.e. adopt incremental beliefs), then trying to overcome setbacks with effort is a fruitful endeavor. However, if people believe change is *not* possible (i.e. adopt entity beliefs), then increasing effort in the face of challenge would, in effect, be futile. Thus, whereas entity beliefs undermine motivation and lead to more negative outcomes, incremental beliefs can be harnessed to increase motivation and promote positive behavior change. To this point, seminal research revealed that students who adopted incremental beliefs about intelligence were more motivated to perform well and received better grades over the course of a challenging, 2-year period relative to students who adopted entity beliefs, controlling for prior academic achievement (e.g. Blackwell et al., 2007). These results have been replicated across domains, including self-regulation (e.g. Job et al., 2010), stereotype threat (e.g. Aronson et al., 2002), interpersonal relationships (Finkel et al., 2007), and athletic ability (Biddle et al., 2003).

One study to date has examined lay theories related to cigarette smoking (Vietor, 2001). This work showed that, consistent with extant research, individuals who held stronger incremental beliefs about smoking were more motivated to overcome their smoking habit in

that they had greater intentions to persist in their cessation efforts after a hypothetical failed quit attempt. To our knowledge, no other published research has explored LTS, particularly among smokers and nonsmokers; nor has prior research examined whether lay theories predict unique variance in smoking expectations above and beyond self-efficacy.

Because nonsmokers and smokers face distinct challenges regarding smoking behavior (i.e. the former should avoid initiation while the latter should avoid continuation), lay theories may differentially predict each groups' behavioral expectations. An incremental theory of smoking holds that smoking behavior can change; people can start or stop smoking whenever they want (Vietor, 2001). Challenging formative lay theories findings highlighting the salutary role of incremental beliefs (Dweck, 2012), for nonsmokers, holding an incremental theory may be associated with greater expectations to try smoking, since such a perspective may decrease perceived risk for smoking escalation and continuation in the future.

However, consistent with the lay theories literature (e.g. Dweck, 2012), stronger incremental beliefs among smokers may be associated with lower expectations of becoming a regular smoker in the future. Believing smoking behavior is malleable may be motivating to current smokers. Because such attitudes imply that smokers *can* change how much they smoke, they may feel empowered and thus, possess lower expectations of continuing to smoke in the future (cf. Blackwell et al., 2007). Indeed, such reasoning is consistent with recent work based on Self-Determination Theory (Deci and Ryan, 1985) showing that higher levels of autonomous self-regulation, or having a sense that personal choice and willingness are the main determinants of behavior, predict lower smoking rates (Cupertino et al., 2012; Lee et al., 2012).

The Surgeon General's Report (2012) on youth and young adult tobacco use stated that prevention efforts aimed at reducing smoking initiation and continuation among 18–25 year olds is imperative (HHS, 2012). College students are an important subset of this group, as nearly 40 percent of a nationally representative sample of undergraduates were shown to either begin smoking or become regular smokers during college (Rigotti et al., 2000). Thus, the present study employed a college sample to test the hypotheses outlined above, specifically that nonsmokers' and smokers' incremental lay beliefs would be associated with stronger and weaker smoking expectations, respectively, controlling for self-efficacy.

Method

Participants and procedure

The Institutional Review Board (IRB) approved all procedures and measures, and all participants provided informed consent. This study was advertised to undergraduate students enrolled in psychology courses at a private, Mid-Atlantic University via the Psychology Department's online research sign-up system.

A total of 338 (64% female) students responded to the ad and completed an online survey in exchange for partial course credit (i.e. 1.0 point toward their final grade). On average, participants were 19.03 years old ($SD = 1.07$). The majority (72%) were white, followed by

Asian (10%), Latino (6%), African American (4%), Middle Eastern (1%), and Native American (<1%) participants; the remaining 7 percent selected “Other” as their race or ethnicity. Based on the Centers for Disease Control and Prevention’s (CDC, 2011) definition of smoking status, participants were considered current smokers if they indicated smoking 100+ cigarettes in their life and currently smoked at least sometimes (15%); the majority of participants (85%) were nonsmokers. Current smokers reported smoking a mean number of 7.78 cigarettes per day ($SD = 5.95$); 63 percent indicated smoking some days while 37% reported smoking every day.

Measures

LTS—To measure LTS, six items were adapted from validated and reliable measures traditionally used to assess lay theories (cf. Vietor, 2001). Using a 1 (*strongly disagree*) to 6 (*strongly agree*) scale, participants indicated how much they agreed with each LTS statement (e.g. “A person’s smoking behavior is something that can’t be changed very much”). Scores were averaged to form an overall LTS score, with lower scores indicating stronger incremental beliefs and higher scores indicating stronger entity beliefs. This scale was internally reliable ($\alpha = .89$), and all six items loaded onto a single factor.

Self-efficacy—To test whether LTS are distinguishable from self-efficacy and account for unique variance in smoking expectations, participants’ perceptions of their own ability to stop smoking was assessed. Participants indicated how much they agreed with the statement “I could smoke for a few years and then quit if I wanted to” using a 1 (*strongly disagree*) to 4 (*strongly agree*) scale.

Smoking expectations—Expectations were assessed with two items, one relevant to non-smokers (“I expect to try cigarette smoking in the future”) and the other relevant to smokers (“I expect to become a regular smoker in the future”). Participants reported how much they agreed with the appropriate statement using a 1 (*strongly disagree*) to 8 (*strongly agree*) scale.

Statistical approach

All analyses were performed using SPSS 20.0 (IBM, 2011). For preliminary analyses, we employed one-way analyses of variance (ANOVAs) when independent variables were categorical and dependent variables were continuous, chi-square analyses when all variables were categorical, and Pearson correlations when all variables were continuous. To test whether LTS predicted smoking expectations above and beyond self-efficacy for nonsmokers and smokers, we utilized hierarchical multiple regression.

Results

Preliminary analyses

Demographics—Nonsmokers and smokers did not differ in terms of sex or race (dummy coded 0 = *White*, 1 = *not White* due to the small number of racial minority participants), all $ps > .08$, but nonsmokers were significantly younger than smokers, $F(1, 336) = 13.28, p < .001, \eta_p^2 = .04$. Despite age differences between non-smokers and smokers, sex, race, and age

were each unrelated to LTS and smoking expectations across nonsmokers and smokers, all $ps > .24$. Because demographic factors were unrelated to test variables, they were not included in subsequent analyses used to test the primary hypothesis.

Descriptive statistics

LTS—On average, participants possessed more incremental beliefs about smoking, believing that smoking behavior is more changeable than fixed ($M = 3.23$, $SD = .89$). However, controlling for age (since nonsmokers were younger than smokers), nonsmokers ($M = 3.32$, $SD = .87$) possessed significantly weaker incremental beliefs (i.e. stronger entity beliefs) than smokers ($M = 2.68$, $SD = .81$), $F(1, 334) = 22.07$, $p < .001$, $\eta_p^2 = .06$.

Self-efficacy—Overall, participants also reported moderate levels of self-efficacy, scoring slightly above the scale midpoint ($M = 2.05$, $SD = .94$). Controlling for age, nonsmokers ($M = 1.93$, $SD = .87$) reported significantly lower self-efficacy than smokers ($M = 2.76$, $SD = 1.03$), $F(1, 334) = 33.71$, $p < .001$, $\eta_p^2 = .09$.

Smoking expectations—Nonsmokers tended to disagree with the statement “I expect to try cigarette smoking in the future” ($M = 2.14$; $SD = 1.91$) while smokers only slightly disagreed with the statement “I expect to become a regular smoker in the future” ($M = 3.92$; $SD = 2.72$).

Relation between LTS and self-efficacy—Stronger incremental beliefs were associated with greater self-efficacy for both nonsmokers and smokers, $r(286) = -.28$, $p < .001$, $r(48) = -.38$, $p = .01$, respectively. Supporting the notion that LTS and self-efficacy are related yet conceptually distinct constructs, although these correlations were statistically significant, their magnitude was small to moderate (Cohen, 1988).

LTS and smoking expectations

The relationship between LTS and smoking expectations was tested using hierarchical multiple regression (Table 1). For nonsmokers, expectations to try smoking were regressed onto self-efficacy in the first step and LTS in the second step. Controlling for self-efficacy, which significantly and positively predicted smoking expectations, $\beta = .20$, $p = .001$, lay theories added significantly to the model at Step 2, $F(2, 284) = 14.73$, $p < .001$, $R^2 = .09$, $R^2 = .03$, $F(1, 284) = 9.96$, $p = .002$; the stronger nonsmokers' incremental beliefs, the greater their expectations to try smoking, $\beta = -.19$, $p = .002$. For smokers, a similar hierarchical regression predicting expectations of becoming a regular smoker revealed that, beyond self-efficacy, which marginally predicted smoking expectations, $\beta = .29$, $p = .06$, LTS added significantly to the model at Step 2, $F(2, 46) = 3.47$, $p = .04$, $R^2 = .13$, $R^2 = .11$, $F(1, 46) = 5.76$, $p = .02$; stronger incremental beliefs predicted *lower* expectations of becoming a regular smoker, $\beta = 0.36$, $p = .02$.

Discussion

The present study found significant associations between LTS and smoking expectations among young adult nonsmokers and smokers. As predicted, stronger incremental beliefs among non-smokers were related to *greater* expectations to start smoking in the future, whereas for smokers, these same beliefs predicted *lower* smoking expectations. In addition, the LTS → smoking expectations link in both groups was independent of self-efficacy. Believing smoking behavior is malleable may lead nonsmokers to think that cigarette use is less risky (since they could presumably stop whenever they choose), and thus be related to greater expectations to start smoking. Conversely, believing smoking behavior is changeable may give smokers more confidence in their ability to quit, leading to lower expectations that they will continue to smoke in the future. These results are consistent with previous research (Viotor, 2001), and suggest that emphasizing incremental beliefs about smoking may be health promoting for those who already smoke, yet be tied to higher rates of smoking initiation among nonsmokers. Thus, underscoring the malleability of cigarette smoking may be beneficial for smokers, but not nonsmokers.

That said, given the many potential determinants of cigarette use (e.g. Cupertino et al., 2012; Glock et al., 2013a), various unmeasured factors could have confounded results. For example, the association between smokers' incremental beliefs and lower expectations to become a regular smoker may reflect unrealistic optimism; smokers may *want* to believe smoking behavior can change (independent of their actual lay beliefs), and as a result, report inflated incremental beliefs *and* lower smoking expectations. This explanation aligns with research showing that smokers often respond defensively to the topic of smoking (in particular, information regarding the health risks associated with smoking; e.g. fear appeals) by perceiving themselves to be at less comparative and absolute risk for incurring negative health consequences of smoking (Glock et al., 2013b; Myers, 2013). For instance, Myers (2013) demonstrated that current smokers reported themselves as being significantly less at risk of developing a variety of smoking-related illnesses compared to the average smoker, but only after watching an anti-smoking scenario that may have aroused defensive reactions. Thus, smokers were more unrealistically optimistic after being presented with threatening information regarding their smoking behavior. Analogously, in the present study, the questions regarding the malleability (or lack thereof) of smoking behavior may have been sufficient to incite reactive processes, which manifest as stronger incremental beliefs and lower expectations of smoking in the future.

Alternatively, assuming smokers hold the general goal of staying healthy, findings may also reflect dissonance-reduction processes (Festinger, 1957; cf. Radtke et al., 2011). Another way to state results is that, for smokers, as *entity* beliefs increased, expectations to become a regular smoker in the future increased. Because smokers are actively engaging in a behavior that is inconsistent with living a healthy lifestyle—and anticipate that this will become a regular facet of their lives in the future—they likely feel a need to justify doing so (i.e. by believing smoking is a behavior that, once initiated, simply cannot change). Notably, however, smokers possessed significantly weaker entity beliefs relative to nonsmokers, which is incongruous with this dissonance perspective. Future research should examine

empirically the role of both unrealistic optimism and dissonance reduction as potential third-variable explanations for the current findings.

The present research highlights the value of including both—and differentiating between—nonsmokers and smokers in analyses of psychosocial correlates of expected cigarette use. Many studies that examine the link between psychological constructs and smoking outcomes utilize samples that consist exclusively of smokers *or* nonsmokers, but not both (e.g. Rise et al., 2008; Smith et al., 2007; for exceptions, see, for example, Grogan et al., 2009; Harris et al., 2011). Furthermore, few studies testing the utility of health behavior theories have focused on smoking initiation among non-smokers (Grogan et al., 2009). Given the importance of primary prevention (HHS, 2012), future research that includes nonsmokers and smokers simultaneously is needed to fill these gaps in the literature. Such work may reveal nuanced insight into the nature of the relationship between psychological factors and smoking cognitions and/or behavior that would otherwise be overlooked.

Further research is also needed to identify and examine mediating factors that explain the → LTS smoking expectations link. For non-smokers, incremental beliefs may decrease the threat of smoking, which in turn increases their openness to smoking in the future. However, for smokers, incremental beliefs may be associated with lower smoking expectations primarily because they decrease any feelings of helplessness surrounding their smoking behavior, especially if they have tried unsuccessfully to quit in the past (cf. Hong et al., 1999; Lee et al., 2012).

Limitations of the current study include a relatively small subsample of smokers, the majority of whom were intermittent smokers. Thus, the extent to which the current findings would generalize to heavy smokers is unclear. Moreover, the primary dependent measure was smoking expectations, not behavior, which was assessed at the same time as LTS. Although behavioral expectations consistently predict behavior (Fishbein and Ajzen, 2010), future longitudinal and experimental work should employ objective measures of smoking behavior and target other points along the smoking continuum (e.g. cessation) among a larger, more representative sample. Though the magnitude and direction of the relation between non-smokers' and smokers' LTS and smoking outcomes may be similar across different samples, heavier smokers (who may be more addicted to nicotine) may report overall stronger entity beliefs than the lighter smokers included in the present analyses, and as a result, also report greater expectations of becoming (or remaining) a regular smoker in the future.

These limitations notwithstanding, the current study provides insight into the role of LTS as a correlate of expectations about initiating and continuing smoking. To our knowledge, the present study was the first to show that LTS were related to smoking expectations (controlling for self-efficacy), and demonstrated the importance of exploring this relation among nonsmokers and smokers separately. Pending future research that isolates the causal effects of LTS, public health officials may have much to gain by exposing smokers to messages that promote incremental beliefs about smoking. For nonsmokers, however, these same messages may have unintended repercussions, such as an increased openness to initiate smoking. By examining these and related possibilities, future research can provide more

fine-grained information that can be used to develop effective interventions to reduce cigarette use, and the morbidity and mortality it causes.

Acknowledgments

We appreciate comments from Heather Patrick on an earlier draft of this article.

Funding

Caroline Fitz completed this project during a summer fellowship, wherein she was funded in whole with federal funds from the National Cancer Institute, National Institutes of Health.

References

- Aronson J, Fried CB, Good C. Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology*. 2002; 38:113–125.
- Bandura, A. *Self-Efficacy: The Exercise of Control*. New York: Freeman; 1997.
- Biddle SJH, Wang CKJ, Chatzisarantis NLD, et al. Motivation for physical activity in young people: Entity and incremental beliefs about athletic ability. *Journal of Sports Sciences*. 2003; 21:973–989. [PubMed: 14748455]
- Blackwell LS, Trzesniewski KH, Dweck CS. Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*. 2007; 78(1):246–263. [PubMed: 17328703]
- Centers for Disease Control and Prevention (CDC). Health topic data guide: Smoking status. 2011. Available at: <http://www.dhds.cdc.gov>
- Cohen, J. *Statistical Power Analysis for the Behavioral Sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates; 1988.
- Cupertino A, Berg C, Gajewski B, et al. Change in self-efficacy, autonomous and controlled motivation predicting smoking. *Journal of Health Psychology*. 2012; 17:640–652. [PubMed: 22076554]
- Deci, EL.; Ryan, RM. *Intrinsic Motivation and Self-Determination in Human Behavior*. New York: Plenum; 1985.
- Dweck CS. Mindsets and human nature: Promoting change in the Middle East, the school-yard, the racial divide, and willpower. *American Psychologist*. 2012; 67(8):614–622. [PubMed: 23163438]
- Dweck CS, Chiu C, Hong Y. Implicit theories and their role in judgments and Reactions: A world from two perspectives. *Psychological Inquiry*. 1995; 6(4):267–285.
- Festinger, L. *A Theory of Cognitive Dissonance*. Stanford, CA: Stanford University Press; 1957.
- Finkel EJ, Burnette JL, Scissors LE. Vengefully ever after: Destiny beliefs, state attachment anxiety, and forgiveness. *Journal of Personality and Social Psychology*. 2007; 92(5):8871–8886.
- Fishbein, M.; Ajzen, I. *Predicting and Changing Behavior*. New York: Psychology Press; 2010.
- Glock S, Kovacs C, Unz D. Implicit attitudes toward smoking: How the smell of cigarettes influences responses of college-age smokers and nonsmokers. *Journal of Health Psychology*. 2013a Epub ahead of print 11 March. 10.1177/1359105313476974
- Glock S, Müller BCN, Ritter SM. Warning labels formulated as questions positively influence smoking-related risk perception. *Journal of Health Psychology*. 2013b; 18:252–262. [PubMed: 22419415]
- Grogan S, Conner M, Fry G, et al. Gender differences in smoking: A longitudinal study of beliefs predicting smoking in 11–15 year olds. *Psychology & Health*. 2009; 24(3):301–316. [PubMed: 20204995]
- Harris JK, Cohen EL, Wyrwich KW, et al. Differences in smokers and nonsmokers' assessments of an educational campaign about tobacco use. *Health Education & Behavior*. 2011; 38(6):574–583. [PubMed: 21460175]

- Hong Y, Chiu C, Dweck CS, et al. Implicit theories, attributions, and coping: A meaning system approach. *Journal of Personality and Social Psychology*. 1999; 77(3):588–599.
- IBM. IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp; 2011.
- Job V, Dweck CS, Walton GM. Ego depletion—Is it all in your head? Implicit theories about willpower affect self-regulation. *Psychological Science*. 2010; 21(11):1686–1693. [PubMed: 20876879]
- Lee HS, Catley D, Harris KJ. A comparison of autonomous regulation and negative self-evaluative emotions as predictors of smoking behavior change among college students. *Journal of Health Psychology*. 2012; 17:600–609. [PubMed: 21911436]
- Lim SS, Vos T, Flaxman AD, et al. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: A systematic analysis for the Global Burden of Disease Study 2010. *Lancet*. 2012; 380:2224–2260. [PubMed: 23245609]
- Myers LB. Changing smokers' risk perceptions—for better or worse? *Journal of Health Psychology*. 2013 Epub ahead of print 21 January. 10.1177/1359105312470154
- Pomery EA, Gibbons FX, Reis-Bergan M, et al. From willingness to intention: Experience moderates the shift from reactive to reasoned behavior. *Personality and Social Psychology Bulletin*. 2009; 35(7):894–908. [PubMed: 19429884]
- Radtke T, Scholz U, Keller R, et al. Smoking-specific compensatory health beliefs and the readiness to stop smoking in adolescents. *British Journal of Health Psychology*. 2011; 16:610–625. [PubMed: 21199538]
- Rigotti NA, Lee JE, Wechsler H. U.S. college students' use of tobacco products: Results of a national survey. *Journal of the American Medical Association*. 2000; 284(6):699–705. [PubMed: 10927777]
- Rise J, Kovac V, Kraft P, et al. Predicting the intention to quit smoking and quitting behaviour: Extending the theory of planned behaviour. *British Journal of Health Psychology*. 2008; 13:291–310. [PubMed: 17535498]
- Smith BN, Bean MK, Mitchell KS, et al. Psychosocial factors associated with non-smoking adolescents' intentions to smoke. *Health Education Research*. 2007; 22(2):238–247. [PubMed: 16880217]
- Spinath B, Spinath FM, Riemann R, et al. Implicit theories about personality and intelligence and their relationship to actual personality and intelligence. *Personality and Individual Differences*. 2003; 35(4):939–951.
- US Department of Health and Human Services (HHS). Preventing tobacco use among youth and young adults. 2012. Available at: <http://www.surgeongeneral.gov>
- Vietor, NA. Understanding Smoking Relapse from an Implicit Theories Framework. Houston, TX: University of Houston; 2001.

Summary of hierarchical multiple regression analysis predicting smoking expectations among nonsmokers and smokers.

Table 1

	<i>B</i>	<i>SE</i>	β	<i>T</i>	<i>R</i> ²	<i>R</i> ²
<i>Step 2: LTS</i>						
Nonsmokers						
Self-efficacy	.44	.13	.20	3.38**	.09***	.03***
LTS	-.41	.13	-.19	-3.16**		
Smokers						
Self-efficacy	.75	.39	.29	1.91†	.13*	.11*
LTS	1.20	.50	.36	2.40*		

† $p = 0.06$;
* $p < 0.05$;
** $p < 0.01$;
*** $p < 0.001$.