

The Influence of Sexually Explicit Internet Material and Peers on Stereotypical Beliefs About Women's Sexual Roles: Similarities and Differences Between Adolescents and Adults

Jochen Peter, Ph.D.,¹ and Patti M. Valkenburg, Ph.D.²

Abstract

Previous research on the influence of sexually explicit Internet material (SEIM) on adolescents' stereotypical beliefs about women's sexual roles has three shortcomings. First, the role of peers has been neglected; second, stereotypical beliefs have rarely been studied as causing the use of SEIM and the selection of specific peers; and third, it is unclear whether adolescents are more vulnerable to the effects of SEIM than adults. We used data from two nationally representative two-wave panel surveys among 1,445 Dutch adolescents and 833 Dutch adults, focusing on the stereotypical belief that women engage in token resistance to sex (i.e., the notion that women say "no" when they actually intend to have sex). Structural equation modeling showed that peers who supported traditional gender roles elicited, both among adolescents and adults, stronger beliefs that women use token resistance to sex. Further, the belief that women engage in token resistance predicted adolescents' and adults' selection of gender-role traditional peers, but it did not predict adolescents' and adults' use of SEIM. Finally, adults, but not adolescents, were susceptible to the impact of SEIM on beliefs that women engage in token resistance to sex.

Introduction

THROUGHOUT THE YEARS, the link between adolescents' media use and stereotypical beliefs about women's sexual roles has attracted continuous scholarly attention.¹⁻⁵ Whereas previous studies have related stereotypical beliefs about women's sexual roles to the use of television and music videos,⁶ recent research has started to link such beliefs to the use of sexually explicit Internet material (SEIM).⁷⁻⁹ By SEIM, we mean professionally produced or user-generated (audio)visual material on or from the Internet that typically intends to arouse the viewer and depicts sexual activities and (aroused) genitals in unconcealed ways, usually with close-ups on oral, anal, and vaginal penetration.

There are at least two reasons why researchers have increasingly focused on the influence of SEIM use on adolescents' stereotypical beliefs about women's sexual roles. First, across the world, many adolescents, particularly males, have been found to use SEIM.¹⁰⁻¹⁴ Second, content analyses have consistently shown that women are presented rather stereo-

typically in sexually explicit material.¹⁵⁻¹⁷ Moreover, a more frequent use of SEIM may contribute to less progressive gender roles.^{7,9}

The focus on SEIM opens up new perspectives in research on the etiology of adolescents' stereotypical beliefs about women's (sexual) roles. However, current research is implicitly based on three assumptions about adolescents that, if untested, impede a more nuanced understanding of how SEIM affects such beliefs. First, existing research has largely ignored adolescents' social environment, notably their peers. This is surprising given peers' importance for adolescents' sexual socialization.¹⁸ Second, an exclusive focus on the impact of SEIM on stereotypical gender beliefs contradicts approaches that have emphasized adolescents' agency in dealing with sexual media content.^{19,20} Third, because of their limited sexual experiences, adolescents are often seen as vulnerable to the influence of SEIM.^{21,22} This assumption implies conversely that adults are less susceptible to the effects of SEIM. Interestingly, no study to date has investigated whether adolescents and adults differ in their susceptibility to

¹The Amsterdam School of Communication Research and ²Department of Communication Science, University of Amsterdam, Amsterdam, Netherlands.

SEIM. However, without such studies, it is impossible to put a potential influence of SEIM on adolescents in perspective.

The present study tests these three implicit assumptions of previous research. We focus on a stereotypical belief about women’s sexual roles called token resistance. Generally, token resistance can be conceptualized as an ambiguous communication of sexual intentions.²³ Specifically, token resistance refers to the belief that, in sexual situations, women “say no when they mean yes and that their protests are not to be taken seriously” (p. 872).²⁴ We chose token resistance because several studies have suggested that men who believe that women engage in token resistance,^{24–26} as well as women and men who use token resistance,^{23,27} are more likely to become sexually aggressive. In addition, women who engage in token resistance become the victim of sexual aggression more often than women who do not.^{23,28} Therefore, it seems important to understand whether token resistance, as a predictor of sexual aggression and victimization, may itself be affected by the SEIM use.

Influence processes

Social cognitive theory (SCT)²⁹ posits that individuals observe their environment and acquire or modify mental representations of ideas and behaviors that are rewarded while they are unlikely to do so with mental representations of ideas and behaviors that are punished. According to SCT, individuals are thus more likely to learn beliefs about token resistance if their environment rewards such ideas than when their environment punishes such ideas.

In adolescents’ environment, both SEIM and peers may convey information to adolescents about whether it is rewarding or punishing to believe that women engage in token resistance to sex. SEIM may reward beliefs that women engage in token resistance by linking it with sexual gratification. Sexually explicit material portrays women typically as sexually willing,^{16,30,31} suggesting that even if women may be hesitant at the outset of a sexual interaction, they may be available in the end. Not taking women’s “no” for an answer

is eventually rewarded in sexually explicit material: the visible orgasm of the male actors, and to a lesser extent of the female actors, is a key feature of sexually explicit material^{16,30} while negative consequences rarely occur. On the basis of SCT, we thus formulate our first hypothesis (i.e., the media influence hypothesis; see Fig. 1): a more frequent use of SEIM will strengthen beliefs that women engage in token resistance to sex.

Peers, as a second source of information about sex, can reward or punish beliefs about women’s token resistance by linking such beliefs to an individual’s status and integration in the peer group. Specifically, beliefs about token resistance may be explicitly or implicitly praised or condemned, thus directly affecting somebody’s status and integration in a group. Eventually, such positive or negative reinforcement strengthens or weakens beliefs about token resistance.

Sexist tendencies among peers have been found to affect gender beliefs.^{32,33} Because women’s token resistance is related to traditional gender roles,^{24,25} we focus on peers’ gender-role traditionalism as a potential influence on the belief that women engage in token resistance to sex. On the basis of SCT and earlier empirical research, we formulate our second hypothesis (i.e., the peer influence hypothesis, see Fig. 1): greater gender-role traditionalism among peers will strengthen beliefs that women engage in token resistance.

Selection processes

The expected impact of SEIM and peers on beliefs about token resistance conceptualizes individuals as the objects and their beliefs as the outcomes of media and peer influence. However, in its notion of reciprocal determinism, SCT posits that individuals and their personal characteristics, such as cognitions and affects, may also influence their environment.²⁹ More specifically, in this agentic perspective, SCT attributes to individuals the possibility to choose what and who surrounds them. Thus, SCT suggests that individuals may select media content and peer groups on the basis of personal factors, such as stereotypical beliefs about women’s sexual roles.

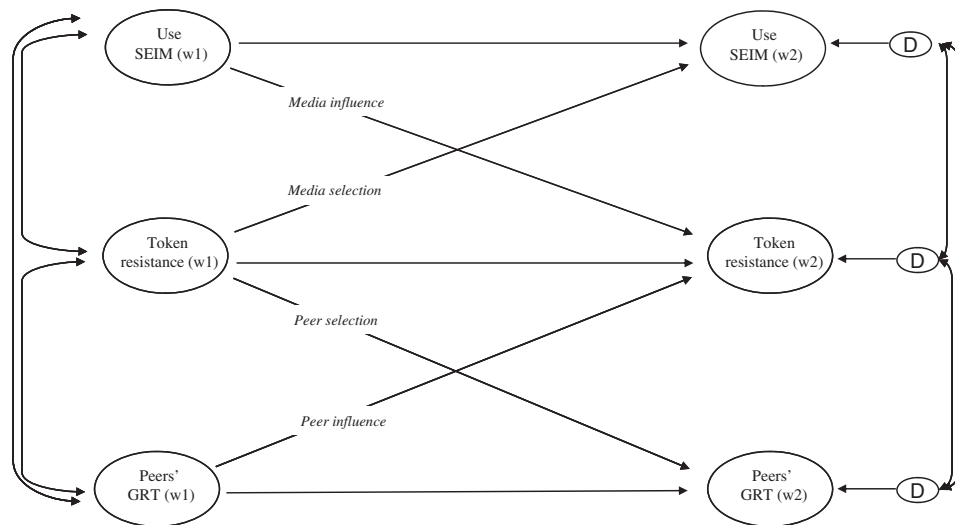


FIG. 1. Hypothesized model of the relations between use of SEIM, stereotypical beliefs about women’s sexual roles, and peers’ gender-role traditionalism. SEIM, sexually explicit internet material; w1/w2, wave 1/wave 2; D, disturbance terms; GRT, gender-role traditionalism.

The notion that individuals select media content in line with their beliefs is also supported by selective exposure theory,^{34–36} which states that people choose information that supports their beliefs, whereas they avoid information that challenges these beliefs. Selective exposure to SEIM is likely³⁷ because gender-stereotypical beliefs have formed before young people enter adolescence, typically in nonsexual experiences during childhood and preadolescence.^{38–40} Adolescents indeed seem to use SEIM more often when they hold gender-stereotypical beliefs.⁷ Therefore, we formulate our third hypothesis (i.e., the media selection hypothesis; see Fig. 1): adolescents will use SEIM more frequently if they believe that women engage in token resistance to sex.

In addition to its grounding in the concept of reciprocal determinism, the notion that individuals select peers according to their existing beliefs is substantiated by the similarity principle of attraction.⁴¹ Similar peers are attractive because they reward individuals through belief validation. Belief validation, in turn, shows individuals whether their perceptions of the world are correct.⁴² The similarity principle of attraction has generally received support⁴¹ and guides peer selection, for example, in terms of smoking.⁴³ Strikingly, however, peer selection processes have hardly been investigated in research on adolescent sexuality. The predominant notion is that peers influence the sexual beliefs and behavior of adolescents,¹⁸ but based on SCT, the similarity principle of attraction, and research from neighboring disciplines, peer selection processes also seem plausible for sex-related issues. Therefore, we formulate our fourth hypothesis (i.e., the peer selection hypothesis; see Fig. 1): adolescents who believe that women engage in token resistance to sex will select friends who hold gender-traditional beliefs.

Differences between adolescents and adults

For two reasons, adolescents are seen as susceptible to the influence of SEIM on stereotypical beliefs about women's sexual roles. First, many adolescents lack the sexual experiences that would help them to put the reality depicted in sexually explicit material in perspective.^{21,22} Second, adolescents' sexual self, that is, their sense of themselves as sexual beings, is still developing.⁴⁴ As a result, they may more easily accept the stereotypical portrayals of women in sexually explicit material than adults do. Thus, we expect that the media influence hypothesis will apply particularly to adolescents.

The influence of peers may be stronger among adolescents than among adults because adolescents struggle with the two important developmental goals of autonomy and intimacy.⁴⁵ In trying to achieve autonomy and intimacy, adolescents turn away from their parents and to their peers for orientation. Adolescents' development as sexual beings is linked with the development of autonomy and intimacy. Accordingly, research has found a strong influence of peers on adolescents' sexual behavior.¹⁸ Adults, in contrast, have typically achieved the maturity to deal with sexual and other intimate issues autonomously. Therefore, we assume that the peer influence hypothesis will be supported predominantly among adolescents.

In contrast to the influence of peers and media, the selection of peers and of media content seems to follow similar patterns both among adolescents^{7,46} and adults.^{12,47–49} As a

result, we predict that adolescents and adults will not differ in the impact that beliefs about female token resistance may exert on the use of SEIM, nor in the influence of such beliefs on the selection of gender-role traditional friends.

Methods

Sample and procedure

We conducted a two-wave panel study among nationally representative samples of Dutch adolescents (aged 12–17) and adults (18 years of age and older). The first wave was fielded in May 2008; the second wave was fielded 6 months later. Before the study started, institutional approval and informed consent of all respondents were obtained. For minors, also parental consent was obtained. In the first wave, 2,092 adolescents and 1,266 adults from the respondent pools were randomly contacted and were asked to fill in an online questionnaire in the privacy of their homes. The response rates was 84 percent ($n = 1,765$) among the adolescents, and 81 percent among the adults ($n = 1,026$). One thousand four hundred forty-five adolescents and 833 adults also completed the questionnaire in the second wave, resulting in an attrition rate of 18 percent among adolescents and 19 percent among adults. Those who completed both questionnaires did not systematically deviate from those respondents who dropped out after wave 1. For further details, see ref.⁵⁰

Measures

Use of SEIM. Based on an operationalization in earlier research,^{12,51} we asked respondents how often, in the 6 months before the interview, they had intentionally looked at (a) pictures with clearly exposed genitals; (b) video (clips) with clearly exposed genitals; (c) pictures in which people are having sex; and (d) video (clips) in which people are having sex. The response categories were 1 (*never*), 2 (*less than once a month*), 3 (*1–3 times a month*), 4 (*once a week*), 5 (*several times a week*), 6 (*every day*), and 7 (*several times a day*). Both in the adolescent and the adult sample and both in wave 1 and wave 2, the items formed uni-dimensional scales, with a minimum explained variance of 88 percent. Chronbach's alpha was at least 0.95, $M(SD)_{adol.(t1/t2)} = 1.43$ (0.94)/1.46 (0.97); $M(SD)_{adul.(t1/t2)} = 1.52$ (1.03)/1.46 (0.99).

Gender-role traditionalism of peers. We created our scale on the basis of a validated Dutch gender-role traditionalism scale.⁵² The four items we used all started with "According to my friends ..." and read: "... a woman is by nature more apt to raise children"; "... a woman's primary task is to look after her family"; "... most women want to be protected"; and "... women don't understand anything about politics." Respondents were asked to indicate on a scale ranging from 1 (*does not apply at all*) to 5 (*applies completely*) the extent to which each item was true for the majority of their friends. In both waves and both among adolescents and adults, the items created a uni-dimensional scale (minimum explained variance 55 percent). Chronbach's alpha was at least 0.73, $M(SD)_{adol.(t1/t2)} = 2.79$ (0.75)/2.78 (0.75); $M(SD)_{adul.(t1/t2)} = 2.69$ (0.77)/2.67 (0.77).

Token resistance. We used a slightly modified four-item version of the token-resistance subscale from Muehlenhard

TABLE 1. ZERO-ORDER CORRELATIONS OF THE KEY VARIABLES IN THE MODEL

	(1)	(2)	(3)	(4)	(5)	(6)
(1) Use SEIM (w1)	—	0.72	-0.02 ^{ns}	-0.04 ^{ns}	0.11	0.09
(2) Use SEIM (w2)	0.53	—	-0.01 ^{ns}	-0.05 ^{ns}	0.08	0.07
(3) Gender-role traditionalism peers (w1)	0.12	0.07	—	0.62	0.46	0.37
(4) Gender-role traditionalism peers (w2)	0.07	0.10	0.42	—	0.40	0.46
(5) Token resistance (w1)	0.16	0.12	0.36	0.27	—	0.59
(6) Token resistance (w2)	0.09	0.15	0.23	0.36	0.42	—

Note: zero-order correlations for the adolescent sample ($n = 1,445$) are printed in bold in the lower triangle; zero-order correlations for the adult sample ($n = 833$) are printed in the upper triangle. All correlations are significant at least at $p < 0.05$ (two-tailed), unless indicated by ns. SEIM, sexually explicit Internet material; w1/w2, wave 1/wave 2.

and Felts' Sexual Beliefs Scale.⁵³ A sample item is, "When girls say 'No' they often mean 'Yes.'" In the introduction of the question, we emphasized that the items referred to sexual situations. Response categories ranged from 1 (*fully agree*) to 5 (*fully disagree*) and were reversely coded for analysis. The items loaded on one factor, with a minimum explained variance of 77 percent. The minimum Chronbach's alpha was 0.90, $M(SD)_{\text{adol.}(t1/t2)} = 2.32$ (0.90)/2.24 (0.90); $M(SD)_{\text{adul.}(t1/t2)} = 2.22$ (0.86)/2.19 (0.88).

Results

Table 1 shows the zero-order correlations between the key variables, separately for adolescents and adults. For more information on the frequency of SEIM use, see ref.⁵⁰ The

significant correlations between the key variables both among adolescents and adults provide first evidence of the hypothesized influence and selection processes. However, as becomes clear from Table 2, a more rigorous test of the model in Figure 1 with structural equation modeling elicited somewhat different results. The columns in Table 2 show the results of the two structural equation models, run separately for adolescents and adults, along with the very good fits of the models at the bottom of Table 2.

Three aspects of how we tested the model in Figure 1 are noteworthy. First, next to a control for autoregressive effects and simultaneous relations between the predictor and outcome variables,⁵⁴ we controlled for variables that may present alternative explanations to the hypothesized influences. Specifically, we included gender, age, education, sexual ori-

TABLE 2. STRUCTURAL EQUATION MODELING RESULTS FOR KEY PATHS OF FIGURE 1

	Adolescents	Adults
Media influence path: Use SEIM (w1) → token resistance (w2)	$\beta = -0.01$ $B(SE) = -0.008$ (0.027) Bt 95% CI: -0.063/0.048	$\beta = 0.08^*$ $B(SE) = 0.064$ (0.027) Bt 95% CI: 0.006/0.119
Peer influence path: Peer gender-role traditionalism (w1) → token resistance (w2)	$\beta = 0.11^{**}$ $B(SE) = 0.151$ (0.047) Bt 95% CI: 0.057/0.265	$\beta = 0.11^{**}$ $B(SE) = 0.145$ (0.051) Bt 95% CI: 0.036/0.240
Media selection path: Token resistance (w1) → use SEIM (w2)	$\beta = 0.03$ $B(SE) = 0.028$ (0.026) Bt 95% CI: -0.030/0.098	$\beta = -0.01$ $B(SE) = -0.008$ (0.031) Bt 95% CI: -0.085/0.059
Peer selection path: Token resistance (w1) → peer gender-role traditionalism (w2)	$\beta = 0.13^{***}$ $B(SE) = 0.092$ (0.024) Bt 95% CI: 0.040/0.150	$\beta = 0.10^{**}$ $B(SE) = 0.077$ (0.030) Bt 95% CI: 0.011/0.142
Stability path: Use SEIM (w1) → use SEIM (w2)	$\beta = 0.50^{***}$ $B(SE) = 0.520$ (0.029) Bt 95% CI: 0.399/0.632	$\beta = 0.68^{***}$ $B(SE) = 0.628$ (0.030) Bt 95% CI: 0.527/0.747
Stability path: Token resistance (w1) → token resistance (w2)	$\beta = 0.39^{***}$ $B(SE) = 0.386$ (0.032) Bt 95% CI: 0.317/0.452	$\beta = 0.55^{***}$ $B(SE) = 0.552$ (0.040) Bt 95% CI: 0.462/0.644
Stability path: Peer gender role traditionalism (w1) → peer gender role traditionalism (w2)	$\beta = 0.42^{***}$ $B(SE) = 0.448$ (0.041) Bt 95% CI: 0.351/0.539	$\beta = 0.60^{***}$ $B(SE) = 0.599$ (0.045) Bt 95% CI: 0.500/0.697
Fit indices		
χ^2 (df = 78)	108.1*	112.2**
CFI	0.997	0.996
RMSEA (90% CI)	0.016 (0.008/0.023)	0.023 (0.012/0.032)

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (two-tailed).

Bt 95% CI, bootstrap bias-corrected 95 percent confidence interval; CFI, comparative fit index; RMSEA, root-mean-squared error of approximation.

entation, sexual experience, peer attachment, and sex talk with peers as manifest control variables. We allowed the control variables to co-vary among one another as well as with the predictor variables and included an influence of each control variable on the various outcome variables in the model (not shown in Fig. 1 for clarity reasons). For the operationalization of our control variables, see ref.⁵⁰ Second, for the three latent constructs in Figure 1, two item parcels served as manifest indicators. For more information on item parceling, see ref.⁵⁵⁻⁵⁷ Third, because our focal variables were not normally distributed, we also tested the statistical significance of our findings with the bootstrap method. For more information on bootstrapping, see ref.^{7,58,59}

Influence processes

The row entitled "Media influence path" in Table 2 indicates that, among adolescents, a more frequent use of SEIM did not result in stronger beliefs that women engage in token resistance. Among adults, however, a more frequent use of SEIM did lead to stronger beliefs that women engage in token resistance. These findings were also obtained when the significance of the influence was tested with the bootstrap method. The 95 percent bootstrap bias-corrected confidence interval (Bt 95% CI) included zero in the adolescent sample, which indicates a nonsignificant difference from zero, whereas it did not in the adult sample. In contrast to our expectations, the media influence hypothesis was thus supported among adults, but not among adolescents.

The row entitled "Peer influence path" in Table 2 shows that peers' gender-role traditionalism resulted in stronger beliefs that women engage in token resistance in sexual situations, both in the adolescent and the adult sample and with similar effect sizes. The peer influence hypothesis was thus supported. However, in contrast to our expectations, the occurrence and strength of peer influence did not differ among adolescents and adults.

Selection processes

As the row entitled "Media selection path" in Table 2 shows, selection processes did not occur, neither among adolescents nor among adults. Thus, the media selection hypothesis was not supported. The row entitled "Peer selection path" in Table 2 indicates that, both among adolescents and adults, beliefs that women engage in token resistance to sex resulted in the selection of more gender-role traditional peers. The size of this effect did not differ significantly between adolescents and adults. Thus, the peer selection hypothesis received support. Our expectation that adolescents and adults would not differ in selecting peers on the basis of stereotypical beliefs about women was also supported.

Additional analyses

Gender may not only directly affect the various outcome variables (as implied in the model above), but may moderate the various influence and selection processes. In a multiple-group analysis, we tested for each of the paths in Table 2 a model in which the specific path was allowed to vary between males and females against a model in which this path was constrained to be equal between males and females. For none of the specific eight path parameters shown in Table 2

did we find a significant difference between males and females. Thus, gender did not moderate the findings presented.

Discussion

The use of SEIM resulted in stronger beliefs that women engage in token resistance in sexual situations among adults, but not among adolescents. In contrast to implicit assumptions in existing research, adolescents are thus not generally more susceptible than adults to effects of SEIM on gender-stereotypical thinking; nor are adults generally unsusceptible to such effects. Our results thus call for a more nuanced and careful assessment of when and on which groups SEIM may exert an influence. However, three limitations of these results are important. First, the effect sizes in the models and the zero-order correlations were generally small. Second, the results should be replicated with internally valid experimental designs. Third, our respondents were, on average, rather unsupportive of beliefs of female token resistance. Therefore, the influence of SEIM should be understood as influencing adults to become less unsupportive, rather than more supportive, of beliefs of female token resistance.

One explanation for why the impact of SEIM emerged only among adults could be that the belief that women engage in token resistance resonates differently with adolescents' and adults' sexual lives. At least in our operationalization, token resistance referred to specific sexual situations. Many adolescents may simply lack experience with the specific sexual situation in which females might say "no" although they mean "yes." As a result, even if SEIM portrays the stereotypical token-resistance situation—and thus facilitates a vicarious verification of beliefs about token resistance—adolescents may be less able than adults to link this depiction of women's sexual roles to their own sexual lives and thinking. Therefore, future research should eliminate a potential adult-bias from the operationalization of token resistance and investigate sexual experience as an additional moderator.

In contrast to our expectations, peers' gender-role traditionalism affected both adolescents and adults. This finding merges with a small but growing research strand that shows that peer influence is not limited to adolescence.⁶⁰⁻⁶² Although our findings await replication with a wider variety of stereotypical gender beliefs, we tentatively conclude that, in terms of the etiology of such beliefs, an assumption of adolescents' exceptionalism is not warranted. The important role of the peer group for developmental goals such as autonomy and intimacy in adolescence thus does not preclude that the peer group affects stereotypical gender beliefs in adulthood.

Neither among adolescents nor among adults did beliefs that women engage in token resistance predict the use of SEIM. For adolescents, this finding contradicts a recent study that found a reciprocal relation between the use of SEIM and notions that women are sex objects.⁷ One explanation of these diverging findings may be that token resistance is a more specific stereotypical belief than the notion that women are sex objects. As a result, it may be more difficult to find the specific types of SEIM that reflect token resistance as opposed to the types of SEIM that reflect female objectification.

Stereotypical beliefs about women's sexual roles predicted the selection of gender-role traditional friends, both among adolescents and adults. Our findings are in line with the similarity principle of attraction and support approaches that

have pointed out that people not only are passively influenced by peer groups, but also actively select their group.^{63,64} More specifically, our findings suggest that both adolescents and adults choose their peers partly according to the extent to which friends' gender beliefs overlap with their own. Therefore, intervention programs should not only aim at increasing resistance to peer influence, but should also take into account people's selection processes of similar others.

Disclosure Statement

No competing financial interests exist.

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Address correspondence to:

Jochen Peter, Ph.D.

The Amsterdam School of Communication Research

University of Amsterdam

Kloveniersburgwal 48

Amsterdam 1012 CX

Netherlands

E-mail: j.peter@uva.nl; p.m.valkenburg@uva.nl

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