CHAPTER 5

Social Psychology Theory Extensions

One lens through which to explore cyberbullying prediction is from a social psychological viewpoint. Contemporary social psychologists study how both personality and situational factors influence behavior juxtaposed with an emphasis on psychological processes that govern such predictions. The focus tends to be on an individual's behavior; however, statistics inform scholars of the average relationship between variables. By applying social psychological theory to the study of cyberbullying, researchers can draw upon the aggression, attitudes, personality, and other literatures. Of all the possible relevant social psychology theories, only a few have consistently been applied to the prediction of cyberbullying. Indeed, several theories have been posited to predict cyberbullying; however, the empirical data is lacking (e.g., The Social Informational Processing Theory; Runions, Shapka, Dooley, & Modecki, 2013). The theories that have been given ample empirical testing will be discussed in detail in this chapter.

THEORY OF PLANNED BEHAVIOR/REASONED ACTION

Perhaps the most widely applied theory from social psychology to predict cyberbullying is Ajzen and Fishbein's (1980) (Fishbein & Azjen, 1975) Theory of Reasoned Action and expanded Theory of Planned Behavior (Ajzen, 1991). Both theories share many commonalities, but a key difference is the inclusion of one important exogenous variable: perceived behavioral control (cf., Madden, Ellen, & Ajzen, 1992). Due to the overlap between the two theories and the fact that most cyberbullying research has applied the Theory of Planned Behavior (compared to the Theory of Reasoned Action), I will limit my discussion of theory to the Theory of Planned Behavior (see Fig. 5.1).

The Theory of Planned Behavior is a model used to predict human actions and what processes govern those actions. This model posits that perceived behavioral control, normative beliefs about a behavior, and
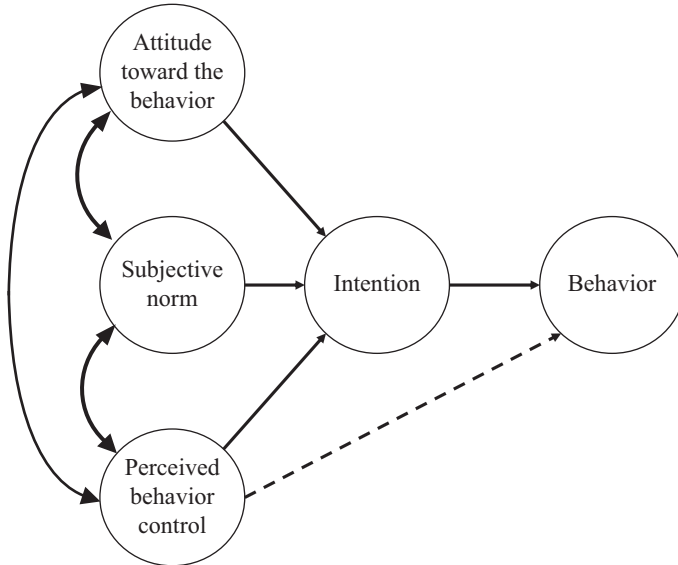
Figure 5.1 Theories of planned behavior and reasoned action. *From Ajzen, I. (1991). The theory of planned behavior.* Organizational Behavior and Human Decision Processes, 50, 179–211.

attitudes toward the object all influence behavioral intentions which predict subsequent behavior (Ajzen, 1991). Finally, perceived behavioral control directly predicts behavior as well. The behavioral intention to act is a very important variable in this model because it directly predicts action and acts as a mediator between the three exogenous variables (i.e., attitudes, normative beliefs, and perceived behavioral control) and behavior. This does not preclude that the other variables in the model are unimportant; however, behavioral intentions clearly have an important role in the prediction of behavior via the Theory of Planned Behavior.

Behavioral Intentions. Ajzen (1991) noted that intentions to behave were an estimate of one's motivation to behave: that is, the amount of effort exerted to engage in a behavior, amount of resources devoted to a behavior, and the perception of how hard one is willing to work to engage in the behavior. When under volitional control (see the section on perceived behavioral control), the stronger the intention to the behavior, the more likely the behavior will be enacted. Indeed, Webb and Sheeran (2006) meta-analyzed 47 experimental intervention studies that targeted intentions and measured subsequent behavior. The results showed that interventions had a positive effect on changing intentions ($d = 0.66$),

which changed subsequent behavior ($d = 0.36$). The Theory of Planned Behavior explicates the importance of behavioral intentions, but also notes that intentions act as a mediator between attitudes, subjective norms, and perceived behavioral control. Thus, understanding those variables is crucial to using the Theory of Planned Behavior.

Attitudes Toward Behavior. Attitudes are defined as an evaluative statement about an object (Ajzen & Fishbein, 1977) that can be positive or negative (valence; e.g., Fazio, Eiser, & Shook, 2004), weak or strong (strength; e.g., Holland, Verplanken, & Van Knippenberg, 2002), and explicit or implicit (awareness; e.g., Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005). Myriad meta-analytic findings have shown that attitudes predict intentions (e.g., Kim & Hunter, 1993) and behavior (Glasman & Albarracin, 2006; Kraus, 1995). However, this latter finding has been called into question (by, e.g., Wicker, 1969) suggesting that attitudes do not always predict behavior as evidence by the medium effect size ($r = 0.38$; Kraus, 1995) shows. The Theory of Planned Behavior, therefore, addresses these correlations explicitly by: (1) noting that attitudes are not a direct predictor of behavior; (2) explicating that the attitude to behavior relation is mediated by intentions; and (3) theorizing that attitudes are not the sole predictor of intentions (Ajzen, 1991).

Subjective Normative Beliefs. Ajzen and Fishbein (1980) defined subjective normative beliefs as one's impression that a behavior is (or is not) acceptable to others (e.g., parents, peers, society). Such beliefs are theorized to be subjective because one's perception regarding acceptability of a behavior is what is theorized, which has been shown to be more important than objective assessments. Brewer and Hallman (2006) showed that subjective risk, for example, the belief that one is at risk for influenza, was the strongest predictor of receiving vaccinations for influenza compared to objective variables (being placed in a high-risk group for influenza using CDC recommendations). Subjective normative beliefs can come from many sources. Grube, Morgan, and McGee (1986) used parent and peer approval of behaviors (smoking) as sources of subjective norms, whereas Linder and Werner (2012) suggested that the mass media can shape beliefs of unacceptable or acceptable behavior. Of course, other sources may cause subjective normative beliefs to shift, but subjective beliefs are an important predictor of behavior (cf., Page, Piko, Balazs, & Struk, 2011).

Perceived Behavioral Control. Perceived behavioral control is defined as the perception of the difficulty of enacting a behavior. Perceived behavior control is the key difference between the Theory of Planned Behavior

and the Theory of Reasoned Action. Indeed, some behaviors are outside of one's volitional control and by incorporating perceived behavioral control into their theorizing, Ajzen (1991) is able to account for a wider array of behaviors more accurately. For example, even though a teenager has positive attitudes toward going on a date, believes that it is normatively appropriate to date others, and has date plans with another (leading to the intention to go on a date), dating behavior may not be likely if they have been grounded from leaving the house by their parent or guardian. In this example, the control is removed and despite the high degree of behavioral intention, the action is not likely. Other behaviorally intended actions may not come to fruition when decisions are out of the individual's direct control (e.g., getting hired at a job). Ajzen (2002) argued that perceived behavioral control is comprised of two highly related (and correlated) variables: perceived self-efficacy (one's belief about their own ability; Bandura, 1991) and perceived controllability (the belief that one's behavior is volitional; Ajzen, 2002). Taken together, both these variables make up perceived behavioral control which both directly predict behavior and indirectly predict behavior through intentions. Indeed, Madden et al. (1992) empirically showed that the Theory of Planned Behavior—accounting for perceived behavioral control—accounted for more variance in both intentions and behavior than the Theory of Reasoned Action; that is, omitting perceived behavioral control.

Evidence. The Theory of Planned Behavior has received much empirical support. The Theory of Planned Behavior has been applied to unethical behaviors (Beck & Ajzen, 1991), driving violations (Parker, Manstead, Stradling, Reason, & Baxter, 1992), condom use (Albarracin, Johnson, Fishbein, & Muellerleile, 2001), hunting intentions (Hrubes, Azjen, & Daigle, 2001), and others. Indeed, meta-analytic findings have shown that averaging perceived behavioral control, subjective norms, and attitudes accounts for 39% of the variance in behavioral intentions, while behavioral intention accounts for 22%–42% of the variance in behavior (depending on how intention is measured; Armitage & Conner, 2001).

As noted, the Theory of Planned Behavior is the most applied social psychological theory to predict cyberbullying perpetration. Indeed, research has shown that cyberbullying attitudes (e.g., Barlett & Gentile, 2012), subjective normative beliefs about cyberbullying (e.g., Festl, Scharkow, & Quandt, 2013; Festl, Scharkow, & Quandt, 2015), perceived behavioral control regarding one's cyberbullying perpetration (e.g., Hinduja & Patchin, 2013a; measured self-reported sanctions of

behavior which can be interpreted as an estimate of behavioral control), and intention to cyberbully (e.g., Pabian & Vandebosch, 2014) have been shown to individually predict cyberbullying perpetration. Heirman and Walrave (2012) measured these variables in the same study and showed that: (1) cyberbullying attitudes predict cyberbullying intention; (2) subjective norms predict cyberbullying intention; (3) perceived behavioral control predicts cyberbullying intention; (4) cyberbullying intention predicted cyberbullying perpetration; and (5) attitudes, perceived behavioral control, and subjective norms were all significantly correlated.

Expanding on this work, Doane, Pearson, and Kelley (2014) showed that cyberbullying attitudes and subjective norms (perceived behavioral control was not measured) predicted cyberbullying intentions, which predicted subsequent cyberbullying perpetration; however, Doane et al. (2014) measured various types of cyberbullying perpetration using the Cyberbullying Experiences Survey (Doane, Kelley, Chiang, & Padilla, 2013), including online deception ("Have you pretended to be someone else while talking to someone electronically?"), online malice ("Have you sent a rude message to someone electronically?"), public humiliation ("Have you posted an embarrassing picture of someone electronically where other people could see it?"), and unwanted online contact ("Have you sent an unwanted pornographic picture to someone electronically?") and found that the effects were consistent. Most importantly, mediation tests showed that behavioral intentions mediated the relationship between cyberbullying attitudes and perpetration for all forms of cyberbullying perpetration; behavioral intentions mediated the relation between injunctive norms and cyberbullying perpetration for only the malice and unwanted contact forms [see Fig. 5.2; refer to the "Indirect (Intentions)" rows].

Finally, Pabian and Vandebosch (2014) sampled over 1500 youth to: (1) test whether the Theory of Planned Behavior predicted cyberbullying perpetration; and (2) explore what variables predicted cyberbullying attitudes, subjective norms, and perceived behavioral control. Results showed that cyberbullying attitudes and subjective norms (but not perceived behavioral control) predicted cyberbullying intentions to predict subsequent cyberbullying perpetration; however, more theoretically important was the examination of the variables related to the exogenous variables in Theory of Reasoned Action. Cyberbullying attitudes were shown to be formed by peer influences and one's own morals and emotions; subjective norms regarding cyberbullying were formed by peer, parent, and teacher influences in addition to global social pressures to cyberbully (or not); and

	Deception β	Malice β	Public Humiliation β	Unwanted Contact β
Attitudes → Behavior				
Total	<u>.403</u>	<u>.374</u>	<u>.450</u>	<u>.453</u>
Indirect (Intentions)	<u>.329</u>	<u>.193</u>	<u>.415</u>	<u>.438</u>
Direct	.074	<u>.181</u>	.035	.015
Injunctive Norms → Behavior				
Total	<u>.223</u>	<u>.260</u>	.069	<u>.340</u>
Indirect (Intentions)	.101	<u>.123</u>	.037	<u>.274</u>
Direct	.122	.137	.033	.066
Descriptive Norms → Behavior				
Total	<u>.155</u>	<u>.176</u>	<u>.163</u>	.073
Indirect (Intentions)	.065	.017	.018	.028
Direct	.090	<u>.159</u>	<u>.145</u>	.044
Empathy → Behavior				
Total	-.082	<u>-.311</u>	<u>-.142</u>	<u>-.140</u>
Indirect (total)	<u>-.101</u>	<u>-.300</u>	<u>-.141</u>	<u>-.143</u>
Intentions	<u>.055</u>	-.014	.041	<u>.064</u>
Attitudes	-.018	<u>-.069</u>	-.010	-.004
Injunctive Norms	-.023	-.053	-.009	-.016
Descriptive Norms	-.010	<u>-.037</u>	<u>-.029</u>	-.007
Attitudes→ Intentions	<u>-.078</u>	<u>-.074</u>	<u>-.120</u>	<u>-.110</u>
Injunctive Norms→ Intentions	-.020	<u>-.048</u>	-.010	<u>-.066</u>
Descriptive Norms→ Intentions	-.008	-.004	-.004	-.004
Direct	.019	-.012	-.001	.003
Empathy → Intentions				
Total	<u>-.081</u>	<u>-.336</u>	<u>-.151</u>	<u>-.137</u>
Indirect (total)	<u>-.170</u>	<u>-.302</u>	<u>-.217</u>	<u>-.211</u>
Attitudes	<u>-.126</u>	<u>-.178</u>	<u>-.196</u>	<u>-.129</u>
Injunctive Norms	-.032	<u>-.115</u>	-.016	<u>-.077</u>
Descriptive Norms	-.012	-.010	-.006	-.005
Direct	<u>.089</u>	-.033	.066	<u>.075</u>

Figure 5.2 Mediated and direct effects of cyberbullying perpetration. *From Doane, A. N., Pearson, M. R., & Kelley, M. L. (2014). Predictors of cyberbullying perpetration among college students: An application of the Theory of Reasoned Action.* Computers in Human Behavior, 36, 154–162. doi:10.1016/j.chb.2014.03.051.

perceived behavioral control was derived from aspects of the online environment (Pabian & Vandebosch, 2014).

GENERAL AGGRESSION MODEL

Chapter 2, Cyberbullying, Traditional Bullying, and Aggression: A Complicated Relationship, described how cyberbullying perpetration fits within a larger aggression operationalization. Thus, aggression theory can be used to predict cyberbullying behavior and the General Aggression Model (GAM; Anderson & Bushman, 2002) is a comprehensive theoretical model to predict aggression. Borne out of the synthesis of domain specific aggression theories (Anderson & Carnagey, 2004), the GAM is a dynamic social–cognitive theory that posits the psychological mechanisms that predict aggression via two interlocked components: distal and proximate processes.

The proximate GAM posits that personality and situational input factors either individually or interactively influence the present internal state which is comprised of inter-correlated aggressive affect, aggressive cognitions, and physiological arousal. Changes to one or a combination of internal state variables as a function of the input variables leads to higher level attributional processes that eventually lead to behavior. Whether an impulsive or thoughtful behavior is aggressive or not is derived from how the input factors and the internal state routes influence higher-order attribution processes.

As argued in Chapter 3, Correlates of Cyberbullying, however, the proximate GAM processes are state-based and no cyberbullying research has been used to test the variables that predict cyberbullying in that moment. However, if such a paradigm could be created and validated, then the proximate GAM would be a highly appropriate model to apply to predict when individuals engage in cyberbullying in that moment. Theoretically, the application of the proximate GAM should be simple. Provocation has been shown to be a valid predictor of aggressive behavior (e.g., Anderson & Huesmann, 2003; Bettencourt & Miller, 1996) and a situational input factor in the GAM and, thus, if an individual is cyber-victimized online, then that person should perceive that to be provoking and GAM processes are likely to be engaged. Survey research showed that those experiencing cyber-victimization feel a variety of negative emotions (Beran & Li, 2005), including anger (an internal state variable). Finally, longitudinal work has shown that cyberbullying victimization assessed at Wave 1 significantly positively predicted cyberbullying perpetration over 1 year later (Sticca, Ruggieri, Alsaker, & Perren, 2013).

The importance of outlining proximate GAM processes when detailing cyberbullying effects is in how the distal processes of GAM were developed. These distal processes are learning-based postulates that describe how one is likely to have high levels of trait aggression. Recall that the proximate GAM begins with situational and/or personality input factors and through the described processes, aggression is likely if the internal state changes influence higher-order decisions and appraisal processes. Continued learning with the same stimulus-behavior pairing leads to the formation of several aggression-related knowledge structures—aggressive attitudes, desensitization, aggressive biases, and aggressive scripts and schemas. Continued proximate cycles further develop and automatize these and, possibly, other aggression-related knowledge structures which eventually lead to the development of one's aggressive personality (see Fig. 5.3).
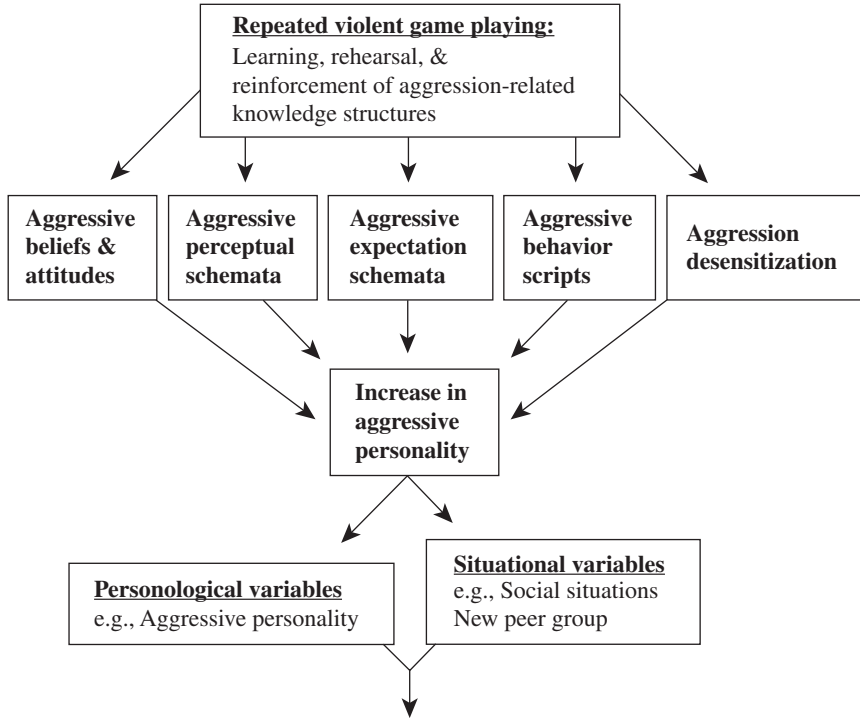
Figure 5.3 Distal general aggression model specific to violent video games. *Adapted from Anderson, C. A., & Bushman, B. J. (2002). Human aggression.* Annual Review of Psychology, 53, 57—51.

Evidence. Surprisingly, there are few studies used to validate the distal GAM application to cyberbullying. Research has shown that cyberbullying perpetration is correlated with normative aggressive beliefs (Ang, Tan, & Mansor, 2011; Burton, Florell, & Wygant, 2013; Nicol & Flemming, 2010; Wright & Li, 2013), aggressive attitudes (that are specific to cyberbullying; Barlett & Gentile, 2012), and empathy (a proxy of desensitization; Ang & Goh, 2010; Steffgen, Konig, Pfetsch, & Melzer, 2011). Finally, trait aggression—one's aggressive personality—has been shown to positively correlate with cyberbullying perpetration (Cetin, Yaman, & Peker, 2011).

The application of GAM to cyberbullying seems intuitive; however, research issues—most notably the measurement of key variables—influences whether the proximate and/or distal processes are engaged. For instance, in their meta-analysis of cyberbullying predictors and outcomes, Kowalski et al. (2014) utilized proximate GAM theorizing (see Fig. 5.4) to organize their synthesized risk and protective factors.
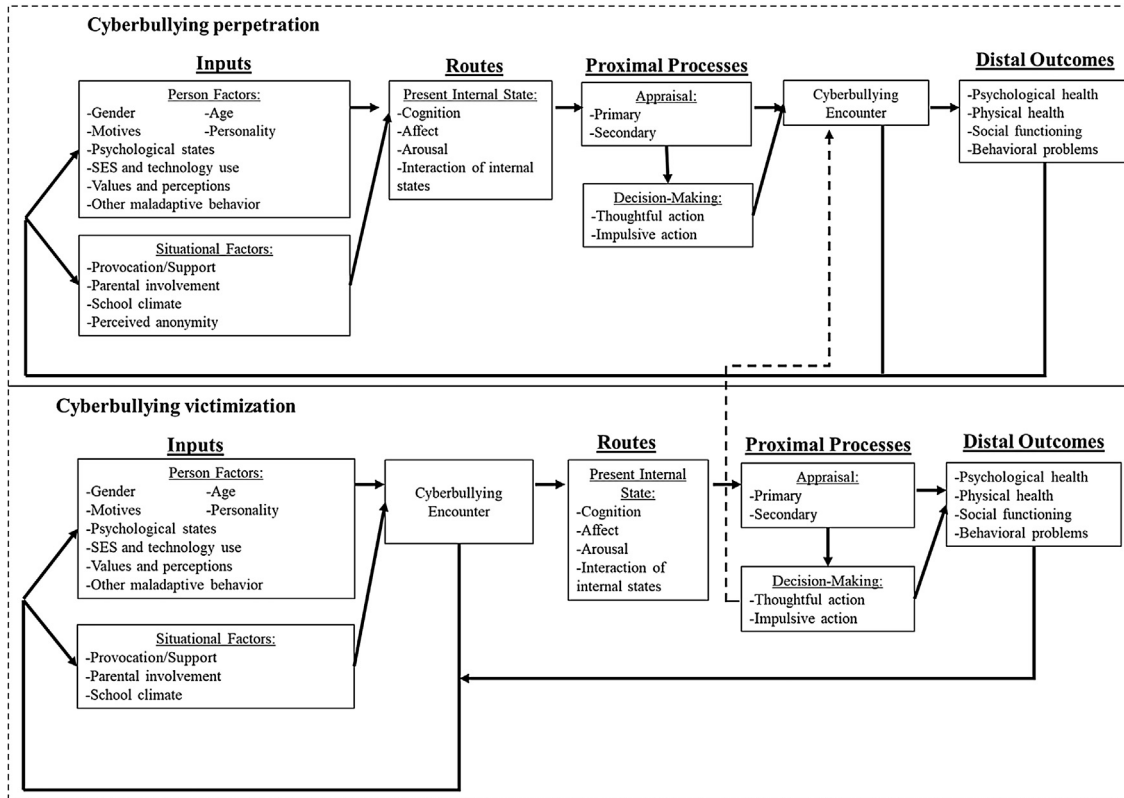
Figure 5.4 Proximate General Aggression Model extension to cyberbullying. *From Kowalski, R. M., Giumetti, G. W., Schroeder, A. N., & Lattanner, M. R. (2014). Bullying in the digital age: A critical review and meta-analysis of cyberbullying research among youth.* Psychological Bulletin, 140, 1073−1137. doi:10.1037/a0035618.

School climate, perceived anonymity, and parental involvement were all categorized as situational factors, which is a misconception considering that there is no research that randomly assigned participants to a high versus low parental involvement conditions and measured cyberbullying perpetration at the state-level afterwards, while the questionnaires used to measure these variables are assessed at the trait level (see, also, Savage & Tokunaga, 2017). Rather, these correlational and longitudinal effects can better be operationalized as situational modifiers (Allen & Anderson, 2017) which feed into the proximate and distal processes.

Biological and situational modifiers are variables that are likely to influence both the learning processes in the distal portion of GAM and the personality and situational input variables in the proximate GAM. Perceived anonymity, for example, assessed as a trait variable would be conceptualized as a situational modifier: (1) perceived anonymity likely influences the distal learning processes in GAM such that if one perceives themselves to be anonymous then the paired learning of cyber-aggressive actions with assumed positive outcomes (e.g., harm to another) is likely increased (see Barlett, 2016, 2017); and (2) perceived anonymity influences the input factors of the proximate GAM by increasing the likelihood of aggressing online after feeling provoked (situational input) or not (e.g., aggressing sans provocation; a personality input). If a scholar randomly assigned participants to be anonymous or not and then assessed cyber-aggression afterwards, then perceived anonymity would be a situational input variable in the proximate GAM.

OVERALL CONCLUSION

The Theory of Planned Behavior (Ajzen, 1991) and the General Aggression Model (Anderson & Bushman, 2002) are the two dominant social psychological theories applied to the study of cyberbullying perpetration in an effort to elucidate the variables and processes engaged in this form of antisocial behavior. Due to the nature of how cyberbullying perpetration is measured, both theories examine the distal (learned) mechanisms that detail cyberbullying perpetration and both can make similar predictions albeit via different levels of processing. For example, both theories detail the importance of cyberbullying attitudes in the prediction of cyberbullying perpetration; however, the routes to get from attitudes to behavior differ. For instance, GAM posits that attitudes are one of several learned knowledge structures that form and become automatized after

learning aggression schemas that form one's aggressive personality to pre-dict (individually or interactively) aggression; whereas the Theory of Planned Behavior posits that attitudes do not directly predict cyberbully-ing, but do so indirectly through intentions.

The overarching criticism in applying these theories to the study of cyberbullying is that neither of these theories can adequately offer predic-tions that are unique to the online world to add incremental validity above and beyond predicting traditional bullying perpetration. This is not to suggest that these theories are invalid or not useful at predicting cyber-bullying. However, the theoretical processes germane to both theories are not specific to the medium through which the bullying occurs. Interventions that claim to reduce cyberbullying may be able to do so by using a curriculum derived from these theories (see Part III); however, I posit that these interventions could be improved if the lack of incremen-tal validity in applying these theories is acknowledged and applied.