

INVESTIGATING SOURCES AND MODES OF COMMUNICATION THROUGH WHICH
RURAL RAISED DRIVERS LEARN AND EXPERIENCE CULTURAL MODELS OF
DRIVING AND THEIR IMPACT ON TRAFFIC SAFETY

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By

EVAN PONCELET

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Canada

ABSTRACT

Saskatchewan faces a serious problem with its traffic safety: there are more traffic-related injuries and fatalities in Saskatchewan than in other Canadian provinces. This issue is particularly problematic on rural roads, where young rural drivers are involved in a disproportionately high number of traffic-related fatalities. However, research has yet to determine what and how information is transmitted to young rural-raised drivers or how this information differs after moving to an urban centre. To address these gaps, the present research explores the cultural models of driving in Saskatchewan and how these models are transmitted to young drivers so that they develop either safe or unsafe driving mental models. A survey questionnaire of rural-raised university undergraduates who drive estimated their relative level of driving safety via driving styles, traffic risk perception, and attitudes toward driving. Following a case-based approach to qualitative research, subsequent interviews with seven survey participants permitted an in-depth understanding of which driving mental model components (both safe and unsafe) develop in these drivers and the modes and sources of communication through which this development occurs. Results describe several universalities and discrepancies among young rural-raised drivers' perceptions of the cultural and individual mental models of driving. For example, rural driving is associated with reckless practices, low police presence, and underage driving, though safety benefits from minimal distractors (besides wildlife). Findings also indicate that, of all cultural model transmission modes, punishment and observation/modeling have the strongest impact on mental model development. Finally, of the sources of cultural model transmission examined, family and friends/peers appear to have the most significant influence on this group's mental models of driving. Practical applications, limitations, and directions for future research of this exploratory study are also discussed.

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LIST OF ABBREVIATIONS

ATDS	Attitudes Towards Driving Scale
DRPS	Driving Risk Perception Scale
FCRSS	Family Climate for Road Safety Scale
IRR	Interrater reliability
MDSI	Multidimensional Driving Style Inventory
RQ1, RQ2, RQ3	Research question 1, research question 2, etc.

CHAPTER 1

INTRODUCTION AND LITERATURE REVIEW

Mass production of the automobile in the early 1900s was universally praised by the Western world for the freedom and ease of transportation it provided, unrivaled by existing alternatives at the time (Flink, 1990). Today, most of the Western world is *automobile dependent*, characterized by high levels of vehicle travel per capita, vehicle-oriented land use patterns, and reduced transportation alternatives (Litman, 2002). Being without a vehicle can be substantially stressful for Western citizens due to city planning that favours vehicle travel (e.g., the distance between residential and business sectors), offers priority of vehicles over non-vehicle travellers in road design, and presents inferior non-vehicle travel options (Litman, 2002). Automobile dependence is perhaps most evident in one's daily surroundings: garages and driveways of houses, wider vehicle lanes in greater numbers on city streets, and expansive parking lots for commercial buildings and business districts. Although many people rely on driving for daily living, it also puts them at the mercy of their own and others' driving practices.

Traffic accidents are a leading cause of death worldwide, responsible for over 1,000,000 fatalities per year and the primary cause of death for people 15-29 years old (World Health Organization, 2015). Along with immense emotional burden, traffic accidents carry a financial burden for people directly related to the accident (e.g., victim, victim's family, etc.), as well as for all of society (International Road Assessment Programme, 2008). The global cost of traffic accident ramifications such as medical treatment, rehabilitation, administration costs, and property damage, ultimately paid for with tax dollars, is estimated to be \$690 billion (CAD) per year (World Health Organization, 2004). In Canada, similar trends are found where 1,834 fatalities and 149,900 injuries in 2014 contributed to as much as \$35 billion (CAD) in economic

costs (assuming 2% GDP; World Health Organization, 2015). The likelihood and severity of traffic accidents in Canada are drastically increased by people volitionally driving dangerously, often violating traffic laws, through acts such as texting while driving, speeding, impaired driving (due to alcohol or illicit substances), and failure to use seatbelts (Transport Canada, 2011). For example, even though Canadian law stipulates that seatbelts must be worn while driving, a notable proportion of national driving-related fatality victims in 2014 (26.2% of drivers and 33.2% of passengers) were not wearing seatbelts (Transport Canada, 2016). Saskatchewanian drivers, specifically, have historically faced a disproportionately high risk of traffic-related injuries and, especially, fatalities as compared to other Canadian provinces (Saskatchewan Government Insurance, 2016; Transport Canada, 2016). Furthermore, traffic-related fatalities typically occur much more often on Saskatchewan's rural roads and highways (75-79% of fatalities from 2013-2015) compared to urban roads (11-19% of fatalities from 2013-2015), despite there being at least twice as many urban than rural residents (Saskatchewan Government Insurance, 2016). A second social factor in Saskatchewan's traffic fatalities is age. Drivers aged 20-24 years old hold one of the highest rates of traffic incidents causing death, surpassed only by older adults (75+ years old; Statistics Canada, 2015). Young rural Saskatchewanian drivers, then, are particularly at risk of involvement in a fatal traffic accident.

Therefore, a problem is facing drivers in which their and their families' fundamental needs are met through driving (i.e., work, travel, entertainment, etc.), yet driving notably increases their chance of injury or death. Traffic safety experts typically use two broad tactics to address this problem: either reduce the danger of driving or create an alternative, safer, and equally appealing method of achieving personal needs. Certainly, needs can be met through alternative transportation (e.g., walking, bicycling, etc.) in the short-term, but a long-term

alternative to vehicle transportation could require an insurmountable degree of municipal restructuring. The more feasible tactic may be to reduce the danger of driving as this can be addressed with less drastic measures and through several approaches, including technological (e.g., vehicle and road design; Desapriya, Fujiwara, Verma, Babul, & Pike, 2011), institutional (e.g., traffic law, insurance policy, etc.), or psychological (e.g., driver attitudes; Scott-Parker et al., 2015). The present research utilizes the latter approach to study this problem.

A psychological approach to traffic safety focuses foremost on humans as the object of analysis (as opposed to vehicles, roads, laws, etc.), particularly their behaviours while driving, the determinants of these behaviours, and how these behaviours lead to safe or unsafe driving outcomes. In the proposed research, the theory of mental models (Craik, 1943; Johnson-Laird, 1983) will guide the application of a psychological approach to the problem of traffic safety. A *mental model* is a comprehensive internal representation of external reality based on a person's unique perceptions, life experiences, and understanding of the world (Austin & Fischhoff, 2012; Jones, Ross, Lynam, Perez, & Leitch., 2011). As such, mental models are used to filter and store incoming information, reason, make decisions, and guide a person's actions (Austin & Fischhoff, 2012; Jones et al., 2011). Individuals can hold mental models of literally anything, including risk communication (Austin & Fischhoff, 2012), environmental conservation (Biggs et al., 2011), and more elementary models for such simpler activities as walking or cooking. Mental models are comprised of many interrelated components, including cognition, behaviour, personality, emotion, and motivation. For example, a driver's mental model of driving would process information about a vehicle and its environment, driving actions, driving-related emotional reactions, etc. to provide the driver with an understanding of incoming information and regulate his of her behaviour appropriately. However, this model may differ over time because mental

models fluctuate through experience and context (e.g., moving from a rural community to an urban center; Jones et al., 2011). To understand the origin of young rural people's driving practices, especially the unsafe practices characteristic of this age and cultural group, the present research aims to identify the exact components of the mental model of driving and discuss the modes through which it is transmitted to rural-raised individuals currently living in an urban area. In the following section, the components of the mental model of driving will be presented, as well as the role they play in safe and unsafe driving.

Components of the Mental Model of Driving

This section details the mental model of driving which has been inferred upon review of traffic safety literature, presented in the following sections. To the best of my knowledge, this is the first attempt, to explicate a mental model of driving. The purpose of this review is not to create and test the validity or reliability of this model; rather, it serves to help focus the research by categorizing components of traffic safety into a conceptual framework. This inferred mental model of driving consists of four components that contribute to safe and unsafe driving practices: behavioural, cognitive, emotional-motivational, and personality. The behavioural component is a set of tangible actions that are executed by a driver in order to operate a vehicle in reaching a destination. The cognitive component consists of information-processing mechanisms related to vehicle operation during diverse conditions and contains knowledge of driving and vehicles. The emotional-motivational component addresses many of the motives and moods that lead individuals to drive and which might also interfere with driving. The personality component describes relatively stable personality traits comprised of enduring thoughts, feelings, and behaviours of individuals that may influence their driving. Finally, demographics are closely intertwined with mental model components, though not a mental model component itself, and

describe how the age, sex, education, social-economic status, ethnicity, and cultural identity of drivers relate to their driving practices. This section first discusses the isolated influence of each component on driving practices and then concludes with a model of their interrelations.

Behavioural Component

A *behavioural act* is a tangible, observable, and intentional action often committed by an organism in response to its environment (Forward, 2006; Gerrig, Zimbardo, Desmaris, & Ivanco, 2009). Drivers exhibit behaviours such as accelerating, vehicle manoeuvres, braking, turn signalling, shoulder checking, adjusting car temperature and many others. A collection of habitual driving behaviours a person exhibits, including driving speed, adherence to traffic rules and laws, and reaction to driving conditions and other drivers, is known as his or her *driving style* (Miller & Taubman-Ben-Ari, 2010; Taubman-Ben-Ari et al., 2005). Traffic safety researchers group driving styles into four categories: the *reckless* style is characterized by deliberate violations of safe driving norms and rules that are prompted by thrill seeking motivation; the *angry* style is characterized by expressions of irritation, rage, and hostile attitudes and behaviours toward other drivers; the *anxious* style is characterized by feelings of alertness, tension, and inability to relax while driving; and the *careful* style is characterized by forward planning, attention to the road, patience, courtesy, calmness, and obedience to traffic rules (Taubman-Ben-Ari & Yehiel, 2012). Research suggests that drivers who exhibit the reckless and angry driving styles are significantly more likely to be involved in traffic incidents and incur driving offenses than those with other driving styles (Taubman-Ben-Ari et al., 2004). Conversely, drivers who exhibit the careful driving style are significantly less likely to be involved in incidents than those with other driving styles (Taubman-Ben-Ari et al., 2004). To the best of my knowledge, research has not found a significant association between the anxious

driving style and traffic incident involvement, though anxious drivers tend to drive less often than non-anxious drivers (Gwyther, 2012), which could put them at a comparatively lower risk of incident involvement. The characteristics of each driving style and their associations with incidents suggest driving style is a fair predictor of driver safety (e.g., reckless and angry drivers drive unsafely, cautious drivers drive safely, and anxious drivers perform somewhere in between). However, a more common method to predict driver safety is by measuring driving skills.

Driving skills—another aspect of the behavioural component—are defined as behavioural and psychological limits to performance of driving tasks that can be improved over time with practice and training (Elander et al., 1993). Common examples of driving skills include changing lanes, driving in reverse, and road navigation via steering wheel. Two driving skills in particular—the ability to rapidly switch attention and response time in detection of, and reaction to, potential hazards—are positively associated with safe driving (Elander et al., 1993).

Cognitive Component

Cognition refers to an individual's representation of the environment and processing of related information (e.g., thinking, remembering, perceiving, etc.; Gerrig et al., 2009). Humans hold various cognitive misperceptions or misjudgements about reality resulting from illogical thinking, known as *cognitive biases*, which directly impact driving (Haselton, Nettle, & Andrews, 2005). Given the vast amount of cognitive biases evident in previous research (e.g., see Haselton et al., 2005 for a review), the following discussion focuses on biases most relevant to traffic safety. According to Hemenway (2013), the three most common cognitive biases involved in incidents and injuries are the *fatalistic bias*, the *moralistic bias*, and the *optimistic bias*. The fatalistic bias results when someone experiences a negative situation and asserts that

nothing could have prevented it. When people drive, they are deliberately placing themselves in a risky situation and, according to the fatalistic bias, they accept that injuries may happen (Hemenway, 2013). An acceptance of injuries as naturally occurring may be counter to safe driving ideals such as incident prevention, though this is mere speculation and has not been empirically examined.

Another common bias, the moralistic bias, is seen when an individual experiences an unfortunate event and is perceived by witnesses as having deserved it (Hemenway, 2013). This phenomenon is thought to occur because it mentally absolves the witnesses of any blame or responsibility (Hemenway, 2013). Due to the moralistic bias, witnesses of a traffic incident may feel that the victim(s) had been deserving of their involvement (e.g., were driving without paying attention).

Lastly, the optimistic bias is evident when people think that nothing bad will happen to them (Hemenway, 2013). Optimistic beliefs can create indifference toward safety measures and risk exposure, clearly problematic for traffic safety (Kouabenan, 2009). An examination of the optimistic bias in driving has found that drivers tend to think of themselves as more skilled and safe than the average driver, a phenomenon aptly named *unrealistic optimism* (Svenson, 1981). Unrealistic optimism can be beneficial by creating within people a sense of control over events and enhancing motivation and perseverance in the face of threats, but it can also be problematic by allowing a false subjective sense of security when engaging in risky behaviours (Kouabenan, 2009). Although evidence supports the existence of optimistic biases in everyday life (Hemenway, 2013), they may not be a critical factor in traffic incidents (McKenna, 1993). Traffic incidents are more influenced by a driver's illusion of control (i.e., overestimating one's

control over a situation). Thus, it is unsurprising that *perceived self control*, or *self-efficacy*, is another key cognitive component of the mental model of driving.

Self-efficacy is one's belief in his or her ability to succeed in a particular situation or task (Bandura, 1994). Thus, one's self-efficacy of driving is his or her belief in ability to succeed in driving-related situations or tasks (e.g., driving on an icy road, passing a car on a single-lane highway, parallel parking, etc.). There is a negative correlation between one's driving self-efficacy and perceived distress (stress, anxiety, and discomfort felt while driving; Taubman-Ben-Ari, 2008), meaning that more self-efficacious drivers experience less distress. However, research has shown that drivers who hold a high level of perceived behavioural control (a construct akin to self-efficacy) are more likely to speed and drive drunk than those with lower perceived behavioural control (Sarma Carey, Kervick, & Bimpeh, 2013). Additionally, perceived behavioural control has been shown to contribute to angry driving style characteristics (e.g., irritation, rage, hostile attitudes toward other drivers, etc.) among relatively educated drivers (Taubman & Yehiel, 2012). If we can assume constructs of perceived behavioural control and self-efficacy are synonymous, then on the one hand, greater self-efficacy may reduce driver distress, but on the other hand, may also contribute to speeding, drunk driving, and angry driving style characteristics. These conflicting findings may be due to a third moderating variable, as Taubman and Yehiel (2012) found education to moderate the effect of self-efficacy on angry driving. Alternatively, some researchers insist that self-efficacy and perceived behavioural control are separate constructs, claiming an individual can perceive few external barriers to (control) an action but also lack confidence in his or her ability to execute the action (self-efficacy; Forward, 2006). A third possibility is that there is a "Goldilocks zone" of optimal driver self-efficacy, where insufficient self-efficacy may result in driver distress and an overabundance

may induce reckless and angry driving behaviours; the optimal level of self-efficacy laying somewhere in between. Further research is needed to clarify these mixed findings. Fortunately, previous research findings are more conclusive for other cognitive components of the mental model of driving.

Attributional styles describe the causal explanations people provide for events in terms of globality, stability, and internality (Liu & Bates, 2014; Petersen et al., 1982). Attributional styles were originally used to show that clinically depressed people tend to perceive negative events as being internal (vs. external), stable (vs. unstable), and global (vs. specific; Petersen et al., 1982). For example, depressed individuals might perceive a failed school exam as a problem that consistently occurs (stable) in every class (global) and is caused by their insufficient intellect (internal). This concept has since been adapted to traffic safety to explain the causal attributions that drivers make about other drivers' behaviours and intentions, known as *driver attributional style* (Lennon & Watson, 2015). Researchers have identified four broad driver attributional styles: the *mistake attributional style* evaluates other drivers as having made a mistake or error, giving them the benefit of the doubt (e.g., "They obviously haven't seen me."); the *skills deficit attributional style* views other drivers as lacking driving skills (e.g., "What a terrible driver!"); the *selfish/rude attributional style* evaluates other drivers as being selfish or rude (e.g., "What a rude driver!"); and they *dangerous attributional style* views other drivers as dangerous or risky (e.g., "What a menace! They shouldn't be allowed on the road!"; Lennon & Watson, 2015). Drivers with the mistake attributional style tend to exhibit less anger while driving and endorse less aggressive responses to other drivers than those with the skills deficit or dangerous styles (Lennon & Watson, 2015). This concept relates to traffic safety because aggression toward drivers (e.g., honking, rude gestures, tailgating, etc.) increases the risk of traffic accidents

(Lennon & Watson, 2011). Thus, drivers who have an unsafe mental model of driving likely hold a proclivity toward the skills deficit or dangerous attributional styles.

Driver attributional styles may arise from the *defensive attribution hypothesis*, which proposes that accident victims tend to perceive and explain precipitating factors of the accident in a manner that minimizes their personal responsibility (Kouabenan, 2002; Shaver, 1970). For example, drivers involved in an accident tend to blame environmental factors (e.g., road conditions). Kouabenan (2002) found this phenomenon to extend to witnesses too, with highway patrol officers blaming the driver for an accident and road engineers blaming vehicle-related factors. In these examples, both highway patrol officers and road engineers avoid personal blame by attributing accidents to factors outside of their control. The defensive attribution hypothesis is also evident in less severe situations (e.g., the victim is cut off by another vehicle; Salminen, 1992). Similar to other cognitive biases, the defensive attribution hypothesis must be acknowledged when considering how drivers perceive and interpret driving situations.

Another important driver cognition is *perceived subjective risk* of a situation, shown to influence driver safety by obscuring the actual level of risk involved in certain driving situations. *Risk* is defined as the likelihood that an individual will experience an adverse effect of a hazard (Short, 1984). When drivers are in a risky situation (e.g., driving on an icy road), the likelihood that they could experience an adverse effect (e.g., lose control of the vehicle) increases. The subjective assessment that one will experience an adverse effect (i.e., perceived likelihood of losing vehicle control) is known as *risk perception* (Charlton, Starkey, Perrone, & Isler, 2014). General risk perception depends on many factors linked either to the risk itself (e.g., its perceived prevalence, controllability, catastrophic potential, etc.), personal characteristics (e.g., information processing capacity, knowledge, expertise, etc.), or culture and values (e.g., social norms, group

pressures, etc.; Kouabenan, 2009). A survey of 165 Australian drivers found that the riskier they perceived driving situations to be, the less likely they were to engage in unsafe driving behaviours such as drunk driving, speeding, tailgating, and cell-phone use (Harbeck & Glendon, 2013). Similarly, researchers in the U.S. have reported an association between low driver risk perception and frequent self-reported unsafe driving behaviours (e.g., speeding, racing, drunk driving, etc.; Rhodes & Pivik, 2011). Thus, identifying the factors that influence risk perception while driving could help improve driver safety.

Although scant research has focused on factors that contribute to risk perception specifically while driving, Kouabenan (2002) found in their survey of drivers in West Africa that traffic accident history (i.e., number of previous accidents) does not relate to a driver's risk perception. However, participants indicated that even though risks were not perceived differentially, a history of past accidents was associated with a lowered inclination to take risks. Thus, accident history may unconsciously increase drivers' risk perception. Risk perception is also affected by an individual's occupation, with those who have driving-oriented occupations overestimating the actual risk of death involved in driving (Kouabenan, 2002). Finally, research suggests that drivers most commonly use a road's curves, terrain (gradient), lane width, and presence/absence of a median line or barrier to judge the risk of a road (Charlton et al., 2014). Although these findings may be helpful from an engineering or industrial perspective, the lack of research on psychological factors that affect risk perception limits human-focused interventions (e.g., behavioural or cognitive interventions).

The information presented here addresses some of the most significant cognitive components identified in traffic safety literature and provides an understanding of cognition sufficient for the purpose of the proposed research. However, a more comprehensive

consideration would include factors like information processing, attention, and environmental distractors (e.g., see Beanland, Fitzharris, Young, & Lenné, 2013; Llerena et al., 2015).

Emotional-Motivational Component

Emotion and motivation are intrinsically tied together. The words *emotion* and *motivation* both stem from the Latin *movere*, meaning to move (Bradley, 2000). Whereas emotion tends to involve evaluative properties, such as whether stimuli are good vs. bad, positive vs. negative, or pleasant vs. unpleasant, motivation is often used to describe unconscious or primitive actions such as approaching survival-promoting stimuli (e.g., pursuing a food source; Bradley, 2000). Individuals who perceive themselves as a cautious driver (clear-thinking, responsible, and law-abiding driver) are motivated against driving recklessly (Taubman-Ben-Ari, 2008). In contrast, four motivational factors—impression management (the tendency to express self-worth and to make efforts to impress others), thrill, pleasure, and control—are positively correlated with both the reckless and angry driving styles (Taubman-Ben-Ari, 2008; Taubman-Ben-Ari & Yehiel, 2012). Similarly, an increase in positive affect (i.e., feeling positive emotions such as enjoyment or relaxation) toward driving is associated with increased self-reported risky driving (Rhodes & Pivik, 2011). That is, drivers motivated by thrill, pleasure, positive affect, control, or impression management are inclined to express hostile attitudes toward other drivers and deliberately violate traffic rules.

Reinforcement sensitivity theory (Gray, 1987) proposes that behavioural differences between humans are partly attributable to differences between their neuropsychological motivation systems, such as their *sensitivity to reward* and *sensitivity to punishment*. Sensitivity to reward reflects the proneness of an individual to pursue goals and experience positive feelings when exposed to cues of impending reward (Carver & White, 1994). Conversely, sensitivity to

punishment reflects the proneness of an individual to experience anxiety in response to aversive cues (Carver & White, 1994). Sensitivity to reward and punishment have been implicated in dysfunctional eating, binge drinking, and methamphetamine use (Scott-Parker et al., 2012). Only recently have these concepts been applied to driving. For example, Harbeck and Glendon (2013) theorize that drivers highly sensitive to punishment may be more aware than others of police and consequences of breaking driving laws, theoretically increasing compliance with road rules. Conversely, drivers highly sensitive to reward could be more likely than others to purposely violate driving laws to achieve a goal (e.g., reach their destination quicker) or reward (e.g., the thrill of speeding; Harbeck & Glendon, 2013). An online survey of 761 Australian drivers with a Provisional license (akin to a Canadian Learner's license) participated in an online study assessing the influence that several emotional, motivational, and personality factors, including sensitivity to reward and punishment, have on self-reported risky driving behaviours (Scott-Parker et al., 2012). Results showed that risky driving behaviour was significantly predicted by drivers' sensitivity to reward and that it was a stronger predictor in males than females. These findings were replicated in a subsequent longitudinal extension of the study (Scott-Parker et al., 2013). Additionally, the longitudinal study revealed that the reward sensitivity of participants decreased from baseline at a six-month follow-up period (Scott-Parker et al., 2013). As participants were young drivers, this change could reflect psychological maturation, but further research is needed to verify the cause of this decrease.

Sensitivity to punishment appears to have less of an impact on driving behaviour than sensitivity to reward. Previous research has found no significant direct relationship between sensitivity to punishment and self-reported risky driving behaviours (Harbeck & Glendon, 2013; Scott-Parker et al., 2012). However, Scott-Parker et al. (2012) found that sensitivity to

punishment was significantly positively correlated with trait anxiety and depression, meaning that participants who were relatively sensitive to punishment displayed higher levels of anxiety and depression. This finding has repercussions for driving because high anxiety has been shown to significantly predict reported risky driving behaviour in females (Scott-Parker et al., 2012, 2013). Similar to anxiety, high levels of stress have been shown to increase self-reported violations (deliberate infringements) and cognitive lapses and errors while driving (Westerman & Haigney, 2000). Consequently, sensitivity to punishment may indirectly contribute to risky driving behaviour via anxiety and stress, especially in females. However, further research is required to assess this possibility.

Negative emotions beyond stress and anxiety, such as anger and depression, have also been implicated in risky driving behaviour. *Driver anger*, or *road rage*, is frequent and intense anger while operating a motor vehicle and is thought to encourage violation of traffic rules and risky and aggressive driving (e.g., speeding, cutting others off, or suddenly braking; Deffenbacher, Oetting, & Lynch, 1994; Sarma et al., 2013). Driver anger is a related, but separate construct from trait anger (i.e., a broad predisposition to experience anger frequently and intensely across situations; Deffenbacher et al., 1994). High trait anger is associated with above-average alcohol consumption (Deffenbacher et al., 1994), suggesting driver anger may indirectly negatively impact driving safety in addition to its direct negative effect. However, further research is needed to explore the relationship between driver anger and alcohol consumption. The influence of depression on driving is less clear. In the previously described study by Scott-Parker et al. (2012), the more depressed drivers indicated they were, the more frequent they reported risky driving behaviours. However, the subsequent longitudinal study found no such relationship (Scott-Parker et al., 2013). The researchers suggest this disparity may

be due to selection bias (i.e., non-random sampling) as participants were school student volunteers. However, other research suggests that drivers diagnosed with clinical depression (e.g., Major Depressive Disorder) are at a greater crash risk than non-depressed drivers (Bulmash et al., 2006). Perhaps there is a severity threshold that must be passed for depression to significantly affect driving. This notion is further supported by the fact that participants indicated an overall lower degree of depression in the longitudinal study by Scott-Parker et al., (2013) than their original study (Scott-Parker et al., 2012).

It is interesting that a high level of both negative emotions (stress, anxiety, anger, and depression) and relatively positive emotions (pleasure and positive affect) contribute to unsafe driving. The same pattern is evident for discussed motivations, except for perceiving oneself as a cautious driver, which is evidenced to motivate individuals against reckless driving. Perhaps strong emotions and motivations occupy drivers' attention, distracting them from the road due to the depletion of limited psychological resources. Regardless, strong emotions and motivations appear to contribute primarily toward an unsafe mental model of driving.

Personality Component

Personality refers to individual differences in persistent patterns of thinking, feeling, and behaving (Cervone & Pervin, 2008) and, as such, is connected to each previously described component of the mental model of driving. A widely used classification of personality is the *Big Five Personality Traits*, in which personality is described through five dimensions (i.e., a characteristic that exerts pervasive influence on a wide range of responses; McCrae & Costa, 1987): *openness*, characterized by intellectuality, imagination, and independence; *conscientiousness*, characterized by strong ethics, responsibility, and dependability; *extraversion*, characterized by talkativeness, assertiveness, and exuberance; *agreeableness*, characterized by

cooperativeness, trustfulness, and amiability; and *neuroticism*, characterized by tension, insecurity, and anxiety (Ajzen, 2005; John & Srivastava, 1999). Using the Big Five framework, previous research has shown a link between personality and driving styles. A survey of 320 drivers in Israel indicated that the reckless and angry driving styles are most associated with high levels of extroversion, and low levels of agreeableness and conscientiousness (Taubman-Ben-Ari & Yehiel, 2012). In other words, drivers who are extraverted, but not agreeable or conscientious appear to be the least safe drivers. As well, the anxious driving style was found to be associated with drivers lower on conscientiousness and higher on neuroticism (Taubman-Ben-Ari & Yehiel, 2012). That is, drivers who are neurotic, but not conscientious are most likely to exhibit the anxious driving style, which may not significantly predict safe or unsafe driving behaviours (Taubman-Ben-Ari et al., 2004). Finally, the careful driving style was associated with higher agreeableness, conscientiousness, and openness (Taubman-Ben-Ari & Yehiel, 2012), indicating that a driver high in these factors is less likely to be involved in a traffic accident than other drivers. Interestingly, conscientiousness was the only Big Five factor significantly associated with all driving styles. This is in line with a previous study highlighting its importance, as American drivers scoring high on conscientiousness were found to be involved in less accidents than those scoring low on the factor (Arthur Jr. & Doverspike, 2001). Thus, perhaps traits related to conscientiousness, such as personal ethics and responsibility, are critically important targets in traffic safety initiatives.

Propensity toward *sensation seeking*, another personality trait, has been implicated in traffic safety. Propensity toward sensation seeking is characterized by seeking novel, intense sensations even if it involves physical, social, legal, or financial risks (Harbeck & Glendon, 2013; Zuckerman, 1994). This is similar to the thrill-seeking motivation for driving discussed

above, but because it is a personality trait is likely more stable over time. Drivers with a high propensity toward sensation seeking have been shown to display significantly more frequent risky driving behaviour than other drivers (Prato et al., 2010; Scott-Parker et al., 2012, 2013). In fact, Scott-Parker et al. (2013) found the magnitude of a positive association between sensation seeking and risky driving to be roughly twice that of both reward sensitivity and anxiety with risky driving. It is thought that this excessive risky behaviour is due to those with a high propensity toward sensation seeking looking for stimulation through driving (e.g., by speeding, passing in no-pass zones, not wearing a seatbelt, etc.; Dahlen & White, 2006).

Attitudes are similar to personality traits except that they tend to involve evaluation of external stimuli and are developed through social learning. Specifically, an attitude is a disposition to respond favourably or unfavourably to an object, person, institution, or event (Ajzen, 2005). Several driver attitudes contribute to unsafe driving, such as *positive attitudes toward speeding* (Sarma et al., 2013), *antisocial attitudes* (e.g., disregard for social norms of driving; Elander et al., 1993), and *positive attitudes toward risky road use* (e.g., finding it permissible to ignore the roles of the road; Scott-Parker et al., 2015). Additionally, positive attitudes toward speeding significantly contribute to drunk driving (Sarma et al., 2013). Risky attitudes appear to be a function of demographic factors, with more males and adolescents holding risky attitudes toward driving than females and adults, respectively (Waylen & McKenna, 2008). In fact, demographic differences are prevalent in many aspects of driving, which is the next topic of discussion.

Demographic Factors

Although not a mental model component per se, demographics are personal characteristics that warrant discussion considering their interaction with a wide range of mental

model components. *Demographic parameters* of individuals typically include age, sex, ethnicity, residence, income, and other characteristics of individuals as members of social communities (Herek, Norton, Allen, & Sims, 2010). There is profuse evidence suggesting that females are generally safer drivers than males throughout various countries. For example, surveys in both Israel (Prato et al., 2010) and the U.S. (Rhodes & Pivik, 2011) have found that male drivers are more likely to display risky driving behaviour than females. As well, a survey of U.K. drivers suggests that male drivers are more likely to deliberately engage in risky driving behaviour than females (Westerman & Haigney, 2000). In terms of driving style, the risky and angry driving styles—the ones most associated with unsafe driving—are predominantly exhibited by males, while the careful and anxious driving styles are mainly associated with females (Taubman-Ben-Ari & Yehiel, 2012). These sex differences could result from variations in mental model components such as cognition, personality, and emotion. For example, male drivers report a more positive affect and lower risk perception toward risky driving behaviours than female drivers (Rhodes & Pivik, 2011). Because research largely indicates that females are safer drivers than males, this sex effect must be considered when designing traffic safety interventions. For example, a campaign advertising safe driving on an all-female campus may benefit most from combatting the perceived rewards of risky driving (e.g., thrill of speeding, shorter travel time, etc.).

Previous research is similarly clear concerning the effect of age on driving safety. A U.S. survey of 504 teen drivers (age range of 16-20) and 409 adult drivers (age range of 25-45) found that teen drivers are more likely than adult drivers to report engaging in and enjoying risky driving behaviours (Rhodes & Pivik, 2011). Additionally, teens reported perceiving risky driving behaviours as less dangerous. Age has also been explored in terms of driving style. The risky and

angry driving styles are most evident in young drivers and become decreasingly evident in older drivers (Taubman-Ben-Ari & Yehiel, 2012). Similarly, Westerman and Haigney's (2000) survey found a significant, albeit small, negative correlation between age and driving violations. That is, the older the driver, the less driving violations he or she tended to report.

A final key demographic variable affecting driving safety is residence. Rural, compared to urban, residents are reliably found to conceive driving differently from urban drivers, some ways in which are associated with unsafe driving. Knight, Iverson, and Harris (2012) conducted a focus group with 101 young residents (15-24 years old) of rural communities in New South Wales, Australia. Many participants had begun driving before legal age – some as young as five years old – primarily to help with tasks on the family property or property of a relative. Learning to drive under these conditions appears to have instilled unique mental models of driving in this population. For example, participants recognized the dangers of some risky driving practices, such as drunk driving, but held little issue with other risky practices such as speeding, which they felt was a natural part of driving. Other behaviours were seen as relatively hard for officers to enforce due to lower perceived police presence, like seat belt use, number of passengers in vehicles, and obeying signs. These findings are mirrored in other studies of rural drivers that have found this population, compared to urban drivers, to more frequently engage in risky driving practices (Chen et al., 2009) and experience higher rates of traffic-related child injury (Kim, Ozegovic, & Voaklander, 2012). Although findings are mixed on whether rural drivers experience a greater proportion of traffic incidents than urban drivers (Chen et al., 2009), research suggests rural drivers are more likely to be involved in fatal traffic incidents (Peek-Asa, Britton, Young, Pawlovich, & Falb, 2010; Office of Highway Policy Information, 2017; Saskatchewan Government Insurance, 2016).

Overall, the research on demographic factors related to driving unequivocally suggest that individuals who are young, rural-raised, or male are among the least safe drivers and those who are adult, urban-raised, or female are among the safest drivers.

Integration among Mental Model Components

Based on the analyzed literature, four components have been identified within the mental model of driving—behavioural, cognitive, emotional-motivational, and personality—that intermingle with demographic factors to largely determine whether individuals drive safely or unsafely and ultimately if they are involved in an incident or not. Although each component has been primarily discussed in isolation from other components, a mental model comprises a system where components interact with each other in regulating driver behaviours. For example, it was stated that the reckless driving style was characterized by, among other things, thrill-seeking motivation. Here, driving style, a behavioural component, is characterized by an emotional-motivational component. Another emotional-motivational component, driver anger, partly characterizes the cognitive component, mistake attributional style. In the previous section discussing demographic factors, it was also noted that there are sex and residence differences in risk perception (cognitive component) and an age difference in positive affect toward risky driving behaviours (emotional-motivation component). These are just a few select examples, but the point should be clear that despite each mental model component having a distinct influence on traffic safety, they are also interconnected. The full degree of this interconnectedness can be seen in Figure 1-1. Components can even mask or undermine each other in some instances. For example, perceived risk (cognitive component) was found in Harbeck and Glendon's (2013) survey to mediate the relationship between committing risky driving behaviours and both propensity toward sensation seeking (personality component) and sensitivity to punishment

(emotional-motivational component). This latter relationship was also evident in a qualitative study of rural Albertan drivers (Rothe & Elgert, 2005). As such, punishment sensitivity and propensity toward sensation seeking have an indirect effect on risky driving behaviours that is dependent on the driver's perceived risk in a situation. Thus, components of the mental model of driving must be considered in relation to each other to gain an accurate understanding of their effects on driving.

Reflecting on the reviewed literature, it is evident that the orientation of an individual's mental model of driving determines his or her driving safety. Specifically, an unsafe mental model of driving may consist of the reckless or angry driving style, the dangerous or selfish/rude driver attributional style, strong motivations and emotions held toward driving (minus self-perception as a cautious driver), strong negative attitudes (i.e., positive attitude toward speeding, antisocial attitude, and risky attitude toward driving), slow hazard detection time, inability to rapidly switch attention, poor risk perception, inflated driver self-efficacy, notable propensity toward sensation-seeking, and relatively low conscientiousness, low agreeableness, and high extraversion. Conversely, a safe mental model of driving may consist of the careful driving style, self-perception as a cautious driver, elevated risk perception, modest driver self-efficacy, relatively low propensity toward sensation seeking, and relatively high conscientiousness, agreeableness, and openness. These two models describe a highly unsafe or safe (respectively) mental model of driving, while individuals may lay somewhere between the two extremes with a mix of component orientations.

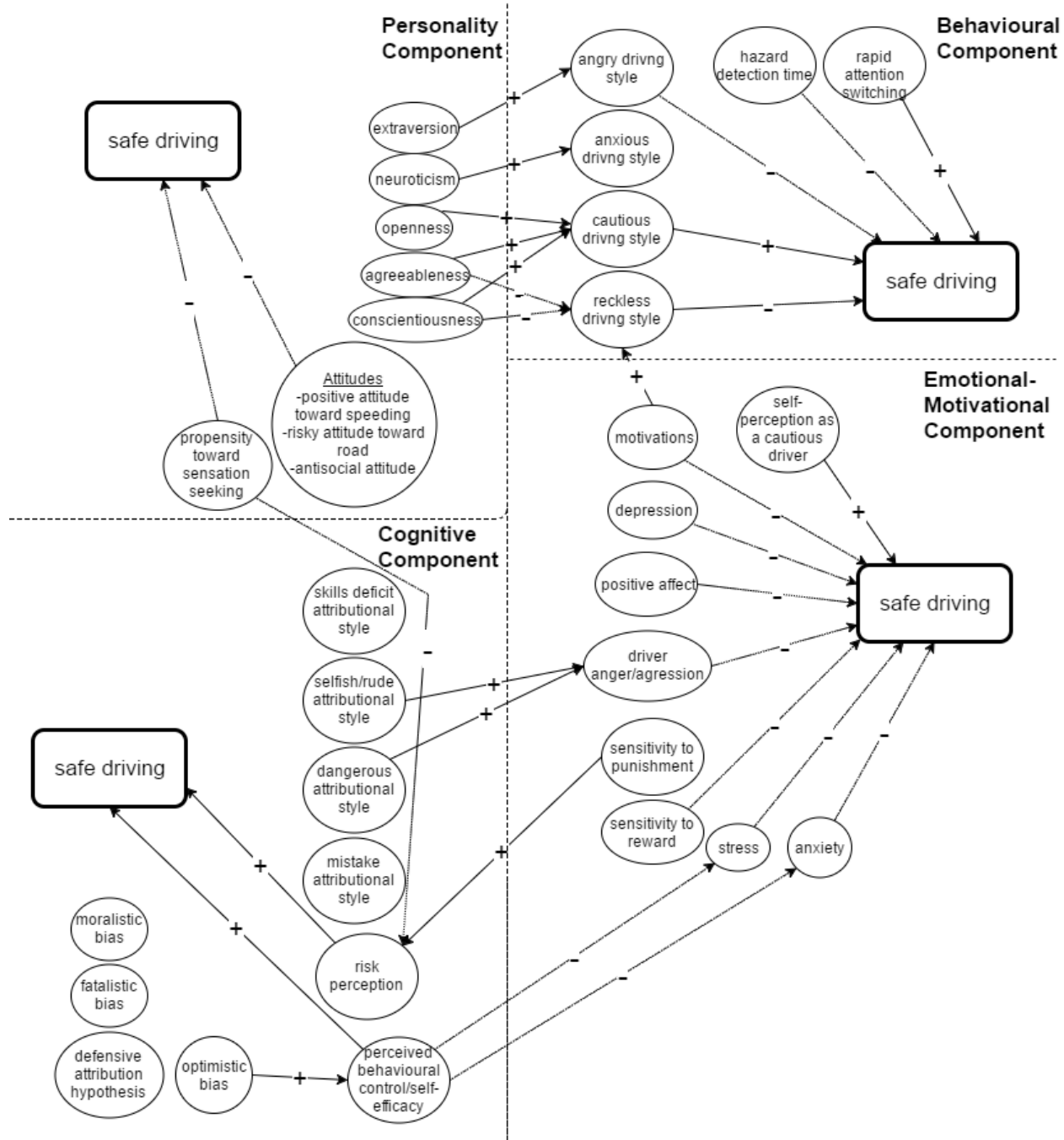


Figure 1-1. Visualization of the mental model of driving. The mental model is separated into four components (represented by dotted lines), each labeled in the top-right corner. Arrowed lines indicate relationships between constructs. A “+” sign indicates a positive relationship and “-” sign indicates a negative relationship. This figure demonstrates the interrelated nature of model components and relationship that each construct has with safe driving.

Thus, previous literature offers many determinants of driver safety, but the manner through which individuals develop a safe vs. unsafe mental model of driving is an equally important topic. Previous research and common sense suggests that an individual learns a notable degree of their mental model of driving from their parents (Scott-Parker et al., 2015; Taubman-Ben-Ari & Katz-Ben-Ami, 2012, 2013), peers (Scott-Parker et al., 2015), community members, and popular media. However, personal driving experience also substantially develops one's mental model of driving (Lahatte & Le Pape, 2008). This influence of others competing with the influence of personal experience can be conceptualized as the cultural mental model of driving interacting with the individual mental model of driving. In the next section, the classification and origin of these two types of mental models will be explored to present a better understanding of their impact on the development of driver safety.

Cultural and Individual Mental Models

Mental models are informed by two constituents: the *cultural model* and *personal* (or *individual*) *model* (Shore, 1996). The cultural model consists of knowledge shared among a cultural community and learned by individuals through socialization and enculturation. Furthermore, culture members understand that other members tend to have similar representations, interpretations, and uses of the external world. For example, drivers in Canada generally understand that a red and white triangular-shaped road sign indicates a driver is to yield to other vehicles. This yield sign works because it is a part of Canadian peoples' cultural model of driving. That is, drivers have learned and internalized the same meaning from community members (e.g., driver education) and assume others have done the same, allowing the meaning of the sign to regulate behaviour.

It must be noted that individuals do not passively internalize all incoming information as part of their cultural models. Rather, information can be unconsciously or consciously interpreted through numerous personal factors (e.g., values, beliefs, other mental models, etc.; Biggs et al., 2011; Seel, 2001). These personal factors help to interpret and filter information, between a *public* cultural model and one's *private* cultural model (Chirkov, 2016). For example, a naturally anxious individual might innately interpret incoming information in a manner biased toward aspects that coincide with his or her anxiety, resulting in a similarly anxious individual mental model (e.g., developing an anxious driving style). Because everyone is distinct in how they interpret environmental information, an individual's private cultural model of driving may differ from those of others.

In contrast to cultural models, an individual model is uniquely built through personal experience of environmental interaction (Shore, 1996). Returning to the yield sign, an individual model of driving would develop from personally encountering and reacting to the yield sign. Or in another example, the driving route from someone's house to place of work, with emphasis on particular features of the drive (e.g., landmarks, streets, turns, etc.), is wholly unique to him or her; others driving to work – even on a similar route – will have at least miniscule differences in the features of the route within their individual mental model. As such, individual models are idiosyncratic in that they are not shared by others in the same community.

Once learned, cultural and individual mental models regulate human actions (Chirkov, 2016) but may also conflict during certain situations (Shore, 1996). For example, a child may grow up in a rural community in which drag racing is a popular leisure activity among young male drivers. In this community, one's public cultural model of driving permits participation in high-speed races. However, upon gaining one's driver's license, a young male who values

personal safety first and foremost would face a discrepancy between a public cultural attitude and his private cultural model of driving. As this person accrues driving experience based on safe practices, he would build an individual model of safe driving. Thus, the mental model of driving consists of interrelated individual and cultural models that regulate both safe and unsafe driving, sometimes in competition with one another. The cultural model acts as a starting point for the individual model, which develops as a person gains personal driving experience.

The sources from which individuals learn cultural models include (but are not limited to) parents, friends, relatives, community members, and popular media (e.g., depictions of driving on television). Each of these sources may be encapsulated in the present research, which focuses on a specific cultural community – rural Saskatchewan.

Cultural Model of Driving in Rural Saskatchewan and Similar Areas

Rural communities are unique in that individuals often learn to drive before reaching legal age or undertaking formal driving education (Chen et al., 2009; Knight et al., 2012). This trend may be rooted in the history of automobiles. Specifically, the mass production of affordable automobiles made commutes much more feasible – so much so that by the 1920s, automobiles were a necessity for many rural families (Flink, 1990). The subsequent growth in popularity of automated rural equipment (e.g., tractors, skidoos, etc.), reliance on youth to help out with family farms, and secluded nature of many rural residences could potentially be responsible for rural youth often driving prior to legal age (Knight et al., 2012).

This rural culture that is accepting of pre-legal driving produces a distinct culture of driving seen in many nations, including Canada. Across Canada, there are substantially more fatalities on rural roads than urban roads. In 2014, there were 978 rural-road fatalities – 49% more than on urban roads (656 fatalities; Transport Canada, 2016). While rural-road fatalities

sometimes include urban residents, rural residents are much more likely to be involved (Blatt & Furman, 1998; Kim et al., 2012).

Why is it that rural drivers are most frequently involved in fatal incidents? High speed limits and poor road conditions cannot be discounted, but within a psychological approach, high rates of impaired driving and low rates of seatbelt use are potential causes (Desapriya et al., 2011). However, these issues may be symptoms of an underlying cause – the *culture* that permits these reckless behaviours. Addressing the role of culture, Rothe and Elgert (2005) completed 20 focus groups with 212 residents of rural Alberta to explore the cultural influences of rural driving. Inductive analysis of focus group data uncovered three main themes: traffic laws; rural people's priorities, safety, and the law; and law enforcement. Traffic laws were knowingly broken by participants (e.g., speeding or not coming to a complete stop at an intersection) for reasons such as believing it is human nature to break laws, perceiving little harm in breaking most laws, considering some contexts as safer to break laws in (e.g., less traffic) and placing the importance of traffic laws below laws of theft or assault. The second theme – rural people's priorities, safety, and the law – indicates that participants broke traffic laws when other tasks took higher priority, such as obtaining work materials quickly to keep operations underway. Traffic laws were also seen as unnecessary in certain situations, such as obeying stop signs in early morning hours when other vehicles are not in sight. The last theme – law enforcement – recounted respect for traffic laws and officers, but skepticism of the law being enforced consistently and non-discriminately. For example, gender and age were perceived as affecting traffic officers' decisions to ticket people. Thus, many rural residents view traffic laws as more of an imposed obligation to suggested guidelines than a wilful commitment to concrete laws. Overall, participants in the study did not consistently associate traffic laws or officers with

safety, seeing enforcement as more of an exercise of control and punishment. This research exhibits the flexibility and indifference that rural residents in Alberta may hold toward traffic laws.

The relatively unsafe cultural model of rural driving was also explored in previous work in our lab with rural residents of Saskatchewan, where traffic-related fatalities are especially high (Nguyen, 2017). This research involved a two-part study to investigate potential differences between rural and urban Saskatchewanian drivers in risk perception and cultural model content and structure. In study one, 38 undergraduate students completed questionnaires to assess their risk perception of driving. According to results, rural participants reported significantly higher risk perception at the community level than individual level. That is, rural communities were perceived as more accepting of driving-related risks than individual community members. In study two, three participants from the first study were recruited for in-person semi-structured interviews. The interviews were meant to ascertain the attitudes, cognitions, and behaviours of rural Saskatchewanian drivers toward risky driving behaviours such as impaired driving, distracted driving, and speeding. Data indicated that the cultural model of risky driving in rural Saskatchewan consists of a general superordinate model of risky driving that informs specific subordinate models (e.g., cultural models of impaired driving, risky driving, and speeding). Aligning with these cultural models was a hierarchy of values in which safety was placed relatively low. These findings coincide with Rothe and Elgert's (2005) conclusion that traffic laws may be dismissed when other tasks take higher priority. Furthermore, there was a distinction in participants' cultural models of risky driving between accident likelihood and severity. Participants were very much aware of the severity of unsafe driving – the drastic consequences that could result – but this was overridden by participants' beliefs that negative

outcomes of their driving were unlikely. Despite a small sample size of interviewees, this research provides clues to the characteristics of the cultural model of driving in rural Saskatchewan, such as a perceived likelihood of risk holding more sway over behaviour than severity. However, beyond the scope of this research was uncovering *how* members of rural communities transmit this unsafe cultural model to one another (e.g., modeling, overt verbal communication, etc.). The proposed research looks to extend these results and limitations by further elucidating rural Saskatchewanians' cultural models of driving, as well as the modes through which they are learned and developed.

Modes by which Cultural Models of Driving are Transmitted

It is widely known that individuals can learn simply from watching others (Cervone & Pervin, 2008). The individual being observed is known as a model and the observational learning process is termed, *modeling*. Previous research suggests driving-related behaviours modeled by adults are a primary source of youth's knowledge of driving. For example, Israeli researchers Prato et al. (2010) conducted an observational study on families with at least one young novice driver. Over 12 months, the researchers recorded driving data (e.g., travel time, speed, acceleration, driving manoeuvres, etc.) of trips taken in the family vehicle through in-vehicle data recorders. The data were used to generate a risk index for each participant driver. Results indicated that high-risk indices of parental driving were reflected in higher risk indices for the young drivers. Essentially, young drivers were more likely to display risky driving behaviours if first displayed by their parents (Prato et al., 2010). Positive driving practices modeled by parents also transmit the cultural model of driving, evidenced through a higher endorsement of safe driving by their children (Taubman-Ben-Ari, 2014). Such modeling effects are not bound to parents; similar effects have been produced by other social figures such as peers (Chen, Grube,

Nygaard, & Miller, 2008; Knight et al., 2012; Simons-Morton, Cheon, Guo, & Albert, 2013) and television actors and actresses (Anderson, 2009).

Modeling appears to contribute to the teaching of driving practices, but there remains the question of exactly how strongly this mode impacts an individual's cultural model of driving. A survey of Israeli drivers suggests that modeling is the primary method of intergenerational driving style transmission (Taubman-Ben-Ari, Mikulincer, & Gillath, 2005). Furthermore, whereas male driving styles tend to be a reflection of other males in their life, female driving styles are primarily dictated by the driving styles of other females (Taubman-Ben-Ari et al., 2005). Lastly, Schmidt's (2012) analysis of Canadian drivers found modeling to be a stronger predictor of youth driving behaviour than teaching. These studies do not provide an absolute answer to the question above but indicate that modeling has a large impact on individuals' cultural model of driving relative to other sources.

Although teaching may have a lesser impact on an individual's cultural model of driving than modeling (Schmidt, 2012), it is part of another significant mode of transmission, namely *overt verbal communication*. Aside from verbal education, overt verbal communication includes feedback and open discussion. The more that young drivers perceive their parents as enabling open communication and providing positive feedback regarding safe driving, the higher their own level of commitment to safe driving and less they report taking risks and driving aggressively (Taubman-Ben-Ari & Katz-Ben-Ami, 2013). Likewise, positive communication (e.g., encouraging and empowering feedback) from others is related to a higher endorsement of safe driving by individuals (Taubman-Ben-Ari, 2014). Essentially, overt verbal communication provides a simple avenue for people to develop their cultural model of driving provided close others are willing to be open and engaging.

Compared to the previous two modes of transmission, the role of *parenting style* (i.e., the balance between control and support exhibited by parents toward their children; Ginsburg et al., 2009) on driver learning has received little research. However, a survey of 5,665 U.S. high school students found that participants whose parents displayed an *authoritative parenting style* (characterized by providing ample support and rules) were less likely than those with *uninvolved parenting styles* (characterized by a lack of support and rules) to be in a traffic accident, drive while intoxicated, or text while driving (Ginsburg et al., 2009). In contrast to modeling and overt verbal communication, parenting style transmits the cultural model of driving passively, through the tendency to provide (or withhold) warmth, support, rules and boundaries. Further research regarding the effect of parental style on driving is needed to draw firm conclusions. However, researchers have investigated rules set by parents—one component of parenting style—as a mode of model transmission. Young drivers who perceive their parents to set limits against risky driving are more likely than other drivers to express their own commitment to safe driving and less likely to report taking risks and driving aggressively (Taubman-Ben-Ari & Katz-Ben-Ami, 2013). Evidently, support and rules provided by parents are reflected in the safe driving practices of their children.

If individuals disobey driving-related rules and traffic laws, the ensuing *punishment* serves to transmit a cultural model of driving. In the previously discussed study of rural Albertan drivers, participants expressed little concern over punishment from traffic officers due to discriminatory and inconsistent ticketing criteria. For example, one participant expressed, “I know that the police only enforce certain traffic laws to make money ... There’s no consistency” (Rothe & Elgert, 2005; p. 278). Here, the manner in which punishment is handed down from traffic enforcement may inform rural drivers that unsafe driving practices in rural areas are

punished at random, essentially informing them of the cultural model of rural driving. In another case, as discussed above, one's sensitivity to punishment evidently had only an indirect effect on driver safety via risk perception (Harbeck & Glendon, 2013; Scott-Parker et al., 2012). However, that does not preclude punishments from contributing to the development of cultural models. Scott-Parker et al. (2015) surveyed and interviewed young drivers in Australia to examine the underlying mechanisms of parental and peer influence over the behaviours and attitudes of young drivers. Results suggest that embarrassment of young drivers by parents (e.g., telling others about their child's risky driving resulting in a crash or offence) is more likely to increase young drivers' risky driving behaviour than reduce it (Scott-Parker et al., 2015). As well, young drivers who do not want to lose the respect of their friends or family are less likely than more complacent drivers to engage in risky driving (Scott-Parker et al., 2015). Thus, the driving-related punishments incurred by individuals serve to transmit a cultural model of driving, which (a) through social disapproval and public embarrassment can either enhance or diminish driving safety, respectively and (b) may be affected by the degree of risk perceived in each situation.

By merely *monitoring* one's driving (e.g., through observation, evaluation, or supervision), others convey to this individual a cultural model of driving. The previously discussed risk indices calculated by Prato et al. (2010) were lower in young drivers whose driving behaviour was regularly monitored by their parents than those with low-monitoring parents. That is, active parental monitoring conveys a cultural model of safe driving. Similarly, survey results from Taubman-Ben-Ari & Katz-Ben-Ami (2013) suggest the more that young drivers perceive their parents to systematically monitor their driving, the higher their own level of commitment to safe driving and less they report taking risks and driving aggressively

(Taubman-Ben-Ari & Katz-Ben-Ami, 2013). It is reasonable to assume that these findings translate to other adults in youth's lives (e.g., teachers, coach, driving instructors, etc.).

It is evident that a cultural model of driving is conveyed to individuals by others through many modes of transmission. Furthermore, the nature of influence (safe vs. unsafe driving) and modes of transmission used are likely to facilitate driving practices in individuals that fall on a continuum of safe driving (e.g., careful driving style, tendency to perceive situations as high-risk, substantial conscientiousness, etc.) and unsafe driving (e.g., reckless driving style, prominent driver anger, propensity toward sensation seeking, etc.). Much knowledge on this topic is owed to researchers Taubman-Ben-Ari and Katz-Ben-Ami (2013) who proposed a new construct, the *Family Climate for Road Safety*, consisting of the values, perceptions, and practices of parents and the family in relation to safe driving, as perceived by young drivers. This construct was adapted from the concept of *safety climate* (i.e., employees' shared perceptions of safety in the policies, procedures, and practices of their organization; Taubman-Ben-Ari & Katz-Ben-Ami, 2013) that exists in organizations and which influences employees' safety performance. Although this model has illuminated many modes of parental transmission and has been shown to validly and reliably predict driving behaviour in young Israeli drivers (Taubman-Ben-Ari & Katz-Ben-Ami, 2013), it does so without analyzing several underlying mental components involved in driving beyond driving style (e.g., emotions, motivations, skills, etc.), thus presenting a direction for further research. Taubman-Ben-Ari and Katz-Ben-Ami's model is also specific to family, leaving room for exploration to others such as peers, community members, and media figures. As well, a gap in the current literature remains that limits our comprehension of transmission modes: there is a paucity of research allowing participants to offer their opinion, through their own words, on modes of influence.

Previous studies concerning transmission modes have each focused on one or two specific modes. For example, Taubman-Ben-Ari et al. (2005) focused on driving style, Schmidt (2012) studied modeling, and Ginsburg et al., (2009) examined parenting style. In one exception, researchers approached young people in a major Australian shopping centre to participate in individual or small group interviews (Scott-Parker et al., 2015). Thematic analysis of interview data revealed that interviewees saw modeling and punishment as notable influences on their driving. However, interview data were principally used to construct surveys, the results of which comprised the bulk of discussion in the article. Thus, there remains to be an in-depth analysis of transmission modes through the words of drivers (as opposed to a limited selection of words chosen by researchers). This in-depth analysis is a primary objective of the present research.

In exploring modes of transmission, it is also important to consider the people interacting with drivers through such modes – these are the *sources* of cultural model transmission. Thus, the present research will also explore the sources that are most impactful in transmitting cultural models of driving.

Summary

In Canada, rural drivers are implicated in fatal vehicle collisions notably more often than urban drivers and drivers aged 15-24 are involved in more overall vehicle incidents than other age groups. To explore the driving practices of young rural-raised individuals, the present research utilizes the framework of cultural and individual mental models. The mental model of driving provides a taxonomy of interrelated influences on driving and modes through which they are transmitted. This psychological approach, in contrast to mainstream technological and institutional approaches, addresses the driver paradox from a psychological point of view. In humans, numerous interrelated components of the mental model of driving have been identified,

the orientation of which constitute a model of either safe or unsafe driving. Given previous research, it seems safe to assume that cultural models of driving are transmitted early in life (i.e., individuals have incurred some socioculturally-learned cognitions, emotions, behaviours, or personality traits concerning driving). Therefore, those raised in rural Saskatchewan are likely to have internalized, at least to some degree, the predominant cultural model of driving in this geographical area. Past research suggests that this cultural model promotes relatively unsafe driving behaviour. However, young rural-raised drivers that move to an urban centre (e.g., for university) are quickly exposed to a new, relatively safer cultural model of driving. This change in culture and experience adds to the development of the overall mental model of driving in these drivers (e.g., it may result in more or less safe driving practices). However, exactly *how* these models are conveyed to drivers is not yet known. Previous research has identified several modes and sources through which a mental model of driving can be transmitted, but researchers have yet to move beyond survey questionnaires to explore these modes and sources. Quantitative methods are exemplary at measuring constructs (e.g., their presence/absence). However, qualitative research methods are often more appropriate for exploring and understanding the meaning that individuals ascribe to a situation (Cramer & Alexitch, 2012). As such, the present research intends to uncover, through interviews, the modes and sources through which young (i.e., approximately 20-24 years old) rural-raised drivers currently living in an urban center have developed their current mental model of driving.

CHAPTER 2

THE CURRENT RESEARCH

The purpose of this exploratory research is to understand how young rural-raised drivers conceptualize the cultural and individual mental models of driving, and to identify the modes and sources through which these cultural models are transmitted. These purposes are based on the findings and gaps in the reviewed literature. To the best of my knowledge, no research has focused on the modes or sources of communication that are most important in young rural-raised drivers, currently living in an urban area, developing their mental models of driving. However, it is also important to understand how mental and cultural models of driving are conceptualized by this group – the *what* that is being transmitted. To study conceptualizations, modes, or sources of mental model development apart from each other would tell an incomplete story. Therefore, the present research intends to answer the following three research questions.

RQ1: How do young rural-raised drivers currently living in an urban area conceptualize the cultural and individual mental models of driving?

RQ2: For young rural-raised drivers currently living in an urban area, what *modes* of communication have been central to developing their current (safe or unsafe) mental model of driving?

RQ3: For young rural-raised drivers currently living in an urban area, what *sources* of communication have been central to developing their current (safe or unsafe) mental model of driving?

These research questions were addressed through two studies. In Study One, a series of questionnaires were administered to participants to determine their levels of driving safety. The purpose of this survey was to enable a purposeful sampling of diverse individuals for Study Two.

The research questions are mainly answered in Study Two through interviews with purposefully selected participants that express particularly safe or unsafe driving practices. These interviews are intended to uncover the modes and sources of communication central to developing young rural-raised drivers' mental models of driving, as well as this group's perceptions of the cultural and individual mental models of driving.

Method

The mental model of driving described above (see *Integration among Mental Model Components*), while perhaps missing some pertinent constructs (e.g., information processing and environmental distractors), provides a broad theoretical framework from which traffic safety can be studied. A primary goal in constructing this framework has been to provide a categorization of psychological constructs that affect the safety of drivers into broad components (i.e., behavioural, cognitive, emotional-motivational, and personality). This categorization helps to focus the methodological tools of the proposed research. Questionnaires were administered in Study One based on this categorization. Then, participants who expressed particularly safe and unsafe driving practices – indicated by questionnaire responses – were interviewed in Study Two to understand the modes and sources of communication through which they have developed their current mental models of driving.

Study One

Purpose. The purpose of this study was to identify drivers with distinct characteristics of safe and unsafe mental models of driving so that a diverse sample could be recruited for Study Two.

Participants. Thirty-four students participated in Study One, with ages ranging 18 to 30 years old ($M = 19.94$, $SD = 2.49$). Twenty-three participants identified as female; 11 as male.

These demographic characteristics closely reflect the University of Saskatchewan’s first- and second-year undergraduate population (University of Saskatchewan, 2017). Thirty participants (88%) reported driving a vehicle during the average week; three (9%) reported not and one (3%) did not respond to the question. Of those who provided the number of hours they drive during an average week (27 participants, or 80%), the mean average was 5.4 hours ($SD = 3.5$). Information on areas in which participants were raised and currently live can be found in Table 2-1. Of the 34 participants, four (12%) reported driving as part of their occupation; 30 (88%) reported not.

Table 2-1

Areas of Participant Residence

	Rural area (e.g., Warman, Kindersley, farm)	Saskatoon	Other city/urban area (e.g., Martensville, Estevan)	Other
Raised in	15 (44%)	9 (26%)	2 (6%)	8 (24%)
Currently live in	3 (9%)	29 (85%)	0	2 (6%)

Note. Proportions are shown for participants both raised in and currently living in a rural area, Saskatoon, other city/urban area, or other area.

Participants were recruited from the University of Saskatchewan’s Psychology participant pool through SONA systems. Specific inclusion criteria cannot be set for participant pool studies, but the study description stated that we were primarily interested in recruiting participants who were raised in rural Saskatchewan. For the purposes of this study, rural areas are defined as any area other than the Government of Saskatchewan's listed 16 cities: Estevan, Flin Flon, Humboldt, Lloydminster, Martensville, Meadow Lake, Melfort, Melville, Moose Jaw, North Battleford, Prince Albert, Regina, Saskatoon, Swift Current, Weyburn, or Yorkton (Saskatchewan Bureau of Statistics, 2012). In return for completing the study, participants received credit toward an introductory Psychology course.

Procedure. Ethical approval for this research was obtained from the Behavioural Research Ethics Board at the University of Saskatchewan on January 3, 2018. Participants completed the study in person in groups of six to eight in one of the university's computer labs. The study began with a brief presentation from the principal researcher on the nature of the study and option to participate in Study Two. Afterwards, participants were asked to complete an online survey containing questionnaires to assess demographics, driving style, driver risk perception, and attitudes toward driving (see Appendix A). Before beginning the survey, informed consent was obtained from all participants. At the end of the survey, participants were given a chance to provide their e-mails if interested in participating in Study Two. Participants were debriefed upon completing the study.

Measures. Questionnaires were administered to assess three components of the mental model of driving—driving style (behavioural component), driver risk perception (cognitive component), and attitudes toward driving (personality component). Assessing the emotional-motivational component and testing additional constructs would have allowed better interpretability of results, but this was unfeasible given the time commitment it would have required from participants. Including only some components and constructs was not considered an issue in this study because the purpose was not to test the validity or reliability of the described mental model of driving, but rather to enable a purposeful sample of drivers with diverse levels of safety for Study Two.

To measure driving style, a revised 16-item version of the *Multidimensional Driving Style Inventory* (MDSI; Taubman-Ben-Ari et al., 2004) was used. The original MDSI is a 44-item measure of eight factors that comprise four distinct driving styles: reckless (risky and high-velocity factors), angry (angry factor), careful (careful and patient factors), and anxious (anxious,

dissociative, and distress-reduction factors). Respondents are asked to rate the degree to which a series of statements about driving describes themselves (e.g., “I get a thrill out of breaking the law”) using a scale ranging from one (“not at all”) to six (“very much”). In previous research, the MDSI has exhibited high validity and reliability (e.g., Taubman-Ben-Ari et al., 2004). A revised version of the MDSI was used for two reasons. First, a “not applicable” response was added to the possible scale responses, allowing respondents to indicate an absence of personal driving style factors as this is considered good practice when respondents may not hold a particular attribute or construct (Dillman, Smyth, and Christian, 2014). This alteration resulted in participants answering questionnaire items using a seven-point scale. Second, the survey was shortened to help avoid participant fatigue as this survey was intended to determine roughly whether participants are safe or unsafe drivers rather than their precise driving styles.

A survey may typically be shortened through a factor analysis with data obtained from a sample of the target population. However, a factor analysis was foregone due to (a) interest in the relative scores of participants so that we could see who were safest and least safe, rather than determining absolute scores, and (b) time constraints of this research (e.g., program timeline). Thus, the MDSI was instead shortened by reviewing factor loadings in Taubman-Ben-Ari et al. (2004) as follows: the two items whose loading for each factor of the reckless driving style and four items whose loading was highest for the angry factor and each factor of the careful driving styles were incorporated to the revised MDSI. Thus, 16 items were used—eight for driving styles associated with unsafe driving (four each for the reckless and angry driving styles) and eight for the driving style associated with safe driving (careful driving style). Factors for the anxious driving style were omitted as there is, to the best of my knowledge, no evidenced link between this driving style and driver safety. In the present study, this altered version of the MDSI

exhibited respectable internal consistency ($\alpha = .76$; 95% CIs [.62, .86]; DeVellis, 2016).

Subscales displayed internal consistency ranging from respectable to unacceptable (DeVellis, 2016): reckless driving style, $\alpha = .74$ (95% CIs [.55, .86]); angry driving style, $\alpha = .62$ (95% CIs [.35, .79]); and careful driving style, $\alpha = .55$ (95% CIs [.28, .75]). A copy of the original MDSI can be found in Appendix B, while the revised version is in Appendix A.

To measure driver risk perception, the 10-item *Driving Risk Perception Scale* (DRPS; Harbeck & Glendon, 2013) was used. The DRPS asks respondents to report their perceived risk of 10 driving behaviours (e.g., “Driving more than 20km/hr over the speed limit?”) using a five-point scale ranging from “not risky at all” to “extremely risky”). It has displayed high internal consistency (Cronbach’s $\alpha = 0.91$) and validity in past research (Harbeck & Glendon, 2013). The scale was changed from five-point to seven-point, like the MDSI, to include a “not applicable” response for participants to indicate an absence of developed driver risk perception and to create a consistent scoring method. Additionally, minor wording alterations were made to clarify statements (e.g., changing the questionnaire items from questions to statements, consistent with the other questionnaires, etc.). In the present study, the DRPS showed respectable internal consistency ($\alpha = .80$; 95% CIs [.68, .87]; DeVellis, 2016). A copy of the original 10-item driving risk perception scale can be found in Appendix B, while the revised version is in Appendix A.

To measure driver attitudes, the *Attitudes Towards Driving Scale* (ATDS; Iversen, 2004) was used. The ATDS is a 16-item questionnaire that assesses three attitude dimensions: attitude toward rule violation and speeding, attitude toward careless driving of others, and attitude toward drinking and driving. Respondents are asked to judge their agreement to each item (e.g., “Traffic rules are too complicated to be carried out in practice.”) using a five-point scale ranging from

“fully agree” to “fully disagree”. The ATDS has presented acceptable internal consistency (Cronbach’s alpha ranging from .682 to .860 among the three factors) and validity in previous research (Iversen, 2004). The scale was changed from five-point to seven-point to include a “not applicable” response for participants to indicate an absence of developed driver attitudes and to allow a scoring method consistent with the other questionnaires. Additionally, minor wording alterations were made to clarify statements (e.g., changing “Sunday drivers” to “slow drivers”). In the present study, the ATDS displayed respectable internal consistency ($\alpha = .80$; 95% CIs [.69, .89]; DeVellis, 2016). Subscales displayed internal consistency ranging from very good (though bordering on redundancy) to undesirable (DeVellis, 2016): attitude toward rule violation and speeding, $\alpha = .65$ (95% CIs [.45, .80]); attitude toward careless driving of others, $\alpha = .70$ (95% CIs [.47, .84]); and attitude toward drinking and driving, $\alpha = .92$ (95% CIs [.84, .96]). A copy of the original ATDS can be found in Appendix B, while the revised version is in Appendix A.

The final questionnaire included in the online survey was created by the primary researcher to obtain participant driving experience and basic demographics (e.g., age, sex, etc.). As well, participants were asked if driving was part of their occupation as professions may affect driving practices (e.g., driver attributional style; Kouabenan, 2002), which could be of interest in secondary analyses. The specific demographic questions that participants were asked can be found in Appendix A.

Data analysis. After reverse-scoring the necessary items of the MDSI and ATDS, total scores were calculated for each of the three questionnaires. As the goal of Study One was to find participants with the most extreme questionnaire scores (i.e., highest and lowest), no inferential analyses were required or conducted. Data were entered into SPSS to produce descriptive statistics to aid in recruiting a diverse group of participants for Study Two. Drawing on

purposeful sampling guidelines from Anderson and Chirkov (2016), participants whose scores were distributed furthest from the mean on each scale – ideally at least two standard deviations from the mean – were to be invited to participate in Study Two. Thus, participants would have ideally scored above or below two standard deviations from the mean on each of the three Study One questionnaires to best coincide with extreme case purposeful sampling.

Study Two

Purpose. One purpose of Study Two was to extract participants’ conceptualizations of the individual mental model and cultural models of rural and urban driving (RQ1). This information is important to understand in what context these young drivers develop their mental models of driving, and what models of driving (safe or unsafe) they are exposed to. In addition, Study Two was meant to expose the modes of communication young rural-raised drivers identify as being utilized in learning their current mental model of driving, allow participants to describe their experiences with these modes (RQ2), identify sources of mode transmission (e.g., parents and friends; RQ3), and provide corroboration for Study One results by comparing narratives with questionnaire scores.

Participants. Participants were recruited for Study Two using an *extreme case purposeful sampling* technique. Purposeful sampling differs from random sampling methods that serve foremost to generalize to a population. Instead, purposeful sampling involves intentionally selecting participants related to primary research question(s), serving principally to elucidate a hypothesized theory about the causal mechanisms of a phenomenon (e.g., the mental model of driving; Chirkov, 2016). Extreme case sampling, one type of purposeful sampling, examines cases of notable success or failure to learn of both the typical and atypical among a group (Patton, 2015). Study One results were to enable recruitment of participants for Study Two with

the strongest proclivity toward safe or unsafe driving as indicated by questionnaire responses, thus creating two groups: safe drivers and unsafe drivers. However, purposeful sampling could not be utilized primarily because of the low number of Study One participants who indicated interest in Study Two. Thus, all participants who provided their e-mails in Study One and were raised rurally were invited to participate in Study Two.

Of the 13 participants invited to participate in Study Two, seven (53.8%) completed the study. Age of participants ranged from 18 to 20 years old ($M = 18.57$, $SD = .79$). Six participants identified as female; one as male. Questionnaire responses of all seven participants indicated a tendency toward safe driving practices. Participants received credit toward an introductory Psychology course and a \$10 Starbucks gift card as honourarium for participation.

Design and Procedure. This study adopted a case-based, as opposed to variable-based, approach to qualitative research design. A *case-based* approach allowed foremost consideration for each participant narrative in its entirety – looking at associations, causes, and effects *within* each participant’s narrative (Miles et al., 2014; Ragin, 1987). Only after these within-case analyses were generalizations drawn across participants in between-case analyses. During between-case analysis causal relationships are established if multiple participants discuss a causal relationship between two constructs (Anderson & Chirkov, 2016). This approach contrasts with a *variable-based* approach, which intends to analyze participant data by focusing on particular variables, usually chosen by previous research or theory, and their variance-based interrelationships (Miles et al., 2014; Ragin, 1987).

A case-based approach excels in uncovering particular nuanced patterns among small samples, though generalizability of results is limited (Miles et al., 2014; Ragin, 1987). However, generalizability can be fostered through careful sample selection (as was intended with the

planned purposeful sampling procedure) and future studies (Flyvbjerg, 2006). Essentially, this approach is more appropriate for formulating theory (i.e., the modes through which rural-raised drivers establish their mental model of driving) than for testing theory. Theory and hypothesis testing is better served by a variable-based approach, equipped for calculating probabilistic relationships among variables in a larger population (Miles et al., 2014; Ragin, 1987).

Study Two procedure began with informed consent being obtained from each participant before beginning interviews. Semi-structured interviews were conducted with participants by the primary researcher and a research assistant, lasting approximately 25-50 minutes. Interviews consisted of main, probing, and follow-up questions developed by the researcher to obtain information regarding the research questions, while allowing room for participants to elaborate on the topics of interest. With the permission of participants, an audio recorder was used to record the interviews, allowing the interviews to be transcribed verbatim for analysis. Fieldnotes were also taken during interviews, consisting of interviewers' immediate thoughts during interviews (e.g., interviewee statements perceived by the interviewer as important, potential follow-up questions, etc.). Upon interview completion, participants were debriefed.

Interview questions and structure. Bryman's (2001) and Patton's (2015) guidelines on qualitative interviewing were referenced in designing interview questions (e.g., using multiple questions types such as introducing questions, follow-up questions, and probing questions). A copy of the interview guide can be found in Appendix C. Interview questions were also largely based on the Family Climate for Road Safety Scale (FCRSS; Taubman-Ben-Ari & Katz-Ben-Ami, 2013). The FCRSS assesses Family Climate for Road Safety (i.e., the values, perceptions, and practices of parents and the family in relation to safe driving, as perceived by young drivers; Taubman-Ben-Ari & Katz-Ben-Ami, 2012, 2013) through seven aspects of the parent-child

relationship in regard to driving behaviour: modeling, messages, feedback, monitoring, communication, commitment to safety, and limits. Thus, it provides a strong foundation for interview questions to assess the various modes through which young rural-raised drivers learned their current mental model of driving. However, other modes of transmission were included, based on other literature (e.g., parenting style).

Data analysis. To answer the research questions, interview data and fieldnotes were analyzed to identify the modes and sources of transmission that participants recognize as being most prevalent and impactful to their current understanding of driving safety, as well as participant accounts of the cultural and individual mental models of driving. To prepare for data analysis, interview recordings were transcribed by the primary researcher and research assistant to electronic format. Fieldnotes were also transferred to electronic format.

Interview data were analyzed systematically through steps based on Anderson and Chirkov (2016); Miles, Huberman, and Saldaña (2014); and Saldaña (2013). Broadly speaking, these steps were divided into three phases: data coding, within-case analysis, and between-case analysis (Miles, Huberman, & Saldaña, 2014).

Data coding. The data coding phase involved summarizing interview transcripts and fieldnotes using analyzable (i.e., brief) codes. For the purposes of this research project, *code* is defined as “a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (Saldaña, 2013, p. 3). Prior to transcript analysis, initial codes were developed deductively based on previous literature (Miles et al., 2014). These codes, derived from research on modes through which mental models are transmitted, were “observation and modeling”, “overt verbal communication”, “parenting style (regarding driving)”, “punishment”, “monitoring”, “cultural

model of rural driving”, “individual mental model of driving”, and “cultural model of urban driving”. Throughout multiple rounds of reading and analyzing transcripts, new codes were inductively added and adapted (e.g. “print educational material”; Miles et al., 2014). Some codes were also grouped into categories to improve organization (e.g., the mode-based codes were grouped under a category titled, “mode”; Saldaña, 2013). Codes were arranged in a code list that contains descriptions and examples for each code (Saldaña, 2013; see Appendix D). This list was treated as a “living document”, altered during data analysis as initial codes were altered and new codes emerged.

To establish interrater reliability (IRR) of interview transcripts, a research assistant coded three randomly chosen interview transcripts (P2, P5, P7). The choice to involve one research assistant and three transcripts was based on the limited time and resources available. The research assistant was already experienced in coding qualitative data and the nature of this project. Further in-person coding training was provided using the code list developed for this project (see Appendix D). The IRR was calculated by comparing the primary researcher’s and the research assistant’s coded transcripts using the Miles and Huberman (1994) formula:

$$\text{IRR} = \frac{\# \text{ of agreements}}{\# \text{ of agreements} + \# \text{ of disagreements}}$$

After IRR was calculated, research assistant codings that were not originally coded by the primary researcher were included in the remaining analysis if the researcher deemed it appropriate to do so, based on his knowledge of constructs included in the code list (see Appendix D).

Within-case analysis. In the within-case analysis phase, each case underwent analysis separately using within-case matrices (Anderson & Chirkov, 2016). Each matrix consisted of three columns – one to list the constructs or relationships under analysis (i.e., the codes), another

to include excerpts from interview transcripts and fieldnotes aligned with each code, and the third column to draw preliminary conclusions from data regarding the construct or relationship of interest (see Appendix F). Analyses of within-case data were made in two respects – componential and structural. *Componential analysis* required “analyzing how constructs are perceived and articulated by participants”, while *structural analysis* involved “analyzing how all constructs are related” (Anderson & Chirkov, 2016, p. 22). Specifically, the componential analysis considered keywords used by interviewees to describe their perception of each construct, facilitating and impedimentary factors to each construct, and any additional comments or insights, which were used to conclude the degree to which a participant experiences each construct (high, moderate, or low), where applicable, and overall state of each construct in participants’ narratives. Structural analysis determined relationships between each construct to create an understanding of how, and under what conditions, constructs of interest interact with each other. Finally, each matrix concluded with a summary of the componential and structural analyses, essentially profiling a participant’s narrative and how it relates to the research questions.

Between-case analysis. Following completion of within-case analysis, the between-case analysis phase explored universalities and idiosyncrasies across cases (Anderson & Chirkov, 2016). That is, the experiences of each participant – with a unique mental model of driving and context in which it exists – were compared to one another. As well, this type of analysis uncovered processes and outcomes across each case, how they are qualified by distinct conditions, and thus yielded intricate and powerful explanations. This type of analysis also provided a degree of generalizability, producing evidence that the universalities observed exist across varying contexts. Based on Anderson and Chirkov (2016), completing the between-case

analysis phase required re-organizing analysis data from the within-case analyses (from the third column of the within-case analyses) by construct. Thus, a new matrix was established for each of the 13 constructs we investigated containing data across all seven participants (see Appendix G). These between-case matrices are termed *grand matrices* as each construct matrix itself consists of six matrices, one each for: terms used to reflect the constructs effectiveness in transmitting cultural models (or in the case of models, terms reflecting their presence), terms used to reflect the constructs lack of effectiveness in transmitting cultural models (or in the case of models, terms reflecting their absence), facilitating factors, hampering factors, other comments, and relationships. The first five matrices comprise a between-case componential analysis, while the relationships matrix provides a between-case structural analysis. Colour coding was used with the grand matrices to help identify similarities and differences across participants (see Appendix G). Like the within-case analysis, each grand matrix was concluded with a summary of the between-case analysis and how it relates to the research questions. Additionally, between-case summaries were accompanied by a table briefly illustrating key elements of participants' narratives that converged (i.e., agreed upon) and diverged (i.e., disagreed upon). Finally, *causal networks* were created for the cultural models of driving that illustrate the interrelationships between constructs, basically showing “how one thing led to another in linear yet interwoven patterns” (Miles et al., 2014, p. 237).

Altogether, the three phases of analysis – data coding, within-case analysis, and between-case analysis – systematically transformed participant narratives into a comprehensive picture illustrating details of the modes used to transmit the mental model of driving.

CHAPTER 3

RESULTS

Study One

The goal of this study was to enable an extreme case purposeful selection of young drivers for Study Two that would allow examination of mental models of driving varying in their degrees of safety. As seen in Table 3-1, the two standard deviation thresholds had to be lowered for the MDSI and DRPS given that two standard deviations above the mean score would surpass the maximum possible score on these questionnaires. Regardless, the purpose of Study One was not achieved due to a limited number of Study One participants volunteering to take part in Study Two, which prompted us to invite all Study One participants to participate to ensure adequate sample size of Study Two. Moreover, we were unable to complete Study One's primary purpose because participants unanimously exhibited safe mental models of driving. However, data were still analyzed to determine the relative safety of participants' driving practices, valuable in interpreting qualitative data for Study Two. The results of these analyses follow and can be seen in Table 3-1.

On the MDSI, participants scored a mean average 23.5 ($SD = 11.6$), with possible scores ranging ± 48 (positive score indicating safer driving). With this average score only .5 away from the halfway point between zero (neutral) and 48, it seems that participants tend to self-report a relatively safe driving style.

On the DRPS, participants scored a mean average 17.4 ($SD = 6.9$), with possible scores ranging ± 30 (positive score indicating safer driving). Considering that this average is about half way between zero (neutral) and 30, it appears that participants tend to self-report relatively safe levels of driving risk perception.

On the ATDS, participants scored a mean average 15.9 ($SD = 13.5$), with possible scores ranging ± 48 (positive score indicating safer driving). This average score indicated that participants typically self-reported relatively safe attitudes toward driving.

Taken together, participant self-reports to Study One questionnaires suggest that participants tend to hold driving styles, levels of risk perception, and attitudes reflective of safe driving.

Table 3-1

Participants' Mean Questionnaire Scores Used for Purposeful Sampling

	MDSI (driving style)	DRPS (driving risk perception)	ATDS (attitudes toward driving)
Participant scores	$M = 23.5 (SD = 11.6)$	$M = 17.4 (SD = 6.9)$	$M = 15.9 (SD = 13.5)$
Possible score range	± 48	± 30	± 48
Two SDs from mean	$< -0.3; > 46.7$	$< -3.6; > 31.2$	$< -11.1; > 42.9$

Note. The means and standard deviations of participant scores obtained on the MDSI, DRPS, and ATDS indicated generally safe drivers. As such, to achieve two standard deviations above the mean on the DRPS for purposeful sampling is not feasible as it goes beyond the maximum possible score. Ideally, participants with a max score of 30 on this questionnaire could be recruited for Study Two.

Study Two

The purpose of this study was to provide the primary information that would answer the research questions. Thus, Study Two results consider participants' understanding of the cultural model of rural driving, individual mental model of driving, and cultural model of urban driving (RQ1). As well, results focus on modes (RQ2) and sources (RQ3) of cultural model transmission. The questionnaire scores, alongside demographics, for the seven participants involved in Study Two can be found in Table 3-2.

Table 3-2

Study Two Participants' Demographics and Questionnaire Scores

	Age	Sex	MDSI (driving style) – min/max score = ± 48	DRPS (driving risk perception) – min/max score = ± 30	ATDS (attitudes toward driving) – min/max score = ± 48	Relative driving safety (safe/unsafe)
P1	20	Male	17	21	26	safe
P2	19	Female	35	15	33	safe
P3	19	Female	34	21	11	safe
P4	18	Female	31	20	20	safe
P5	18	Female	26	4	11	safe
P6	18	Female	36	18	16	safe
P7	18	Female	25	21	15	safe
Study Two P's	$M = 18.6$ ($SD = .79$)	1 male 6 females	$M = 30$ ($SD = 5.3$)	$M = 17.1$ ($SD = 6.2$)	$M = 18.9$ ($SD = 8.1$)	safe
All P's	$M = 19.9$ ($SD = 2.5$)	10 males 23 females	$M = 23.5$ ($SD = 11.6$)	$M = 17.4$ ($SD = 6.9$)	$M = 15.9$ ($SD = 13.5$)	safe

Note. The scores that participants obtained on the MDSI, DRPS, and ATDS indicate that they are generally safe drivers on the basis of a binary safe (above zero)/unsafe (below zero) distinction. There were no significant differences between Study Two participants' mean scores and mean scores of all participants.

The primary source to answer the research questions was the between-case analyses.

Within-case analyses were also integral to answering the research questions, but mainly in their role as a precursor to the between-case analyses. This section will first discuss the IRR of interview transcripts. Next a sample within-case analysis for Participant One is provided. All within-case analyses and within-case analysis matrices can be found in Appendices E and F, respectively. Following the sample within-case analysis, between-case analyses are presented. This section concludes with between-case structural analyses of the cultural and individual mental models of driving, tying together the results of models with transmission modes and sources. Between-case analysis matrices are located in Appendix G.

Interrater Reliability

Generally, IRR of transcript coding was modest; the three interview transcripts that were subjected to analysis contained a total of 109 coding agreements and 120 disagreements between the primary researcher and research assistant, yielding an IRR of 48%. Acceptable minimum IRR cut-offs vary in the literature, but are usually between 70% and 80% (Campbell, Quincy, Osserman, & Pedersen, 2013). Yet, others propose looser IRR standards for exploratory research, such as the present research (Hruschka et al., 2004; Krippendorff, 2004). The mediocre IRR may result from coders holding differential understandings of cultural and individual mental models. In fact, much of the disagreement in coding concerned these complex constructs. There was also disagreement on the *family* and *parenting style* codes. While the primary researcher typically double-coded transcript excerpts using these two closely related codes, the research assistant tended to code excerpts as one or the other. Research assistant codings that were not originally coded by the primary researcher were included in the remaining analysis as the researcher deemed appropriate, based on personal knowledge of constructs included in the code list.

Sample Within-case Analysis (Participant One; P1)

Participant information. P1 is a 22-year-old male, raised in rural Saskatchewan and currently living in Saskatoon. Driving is not part of P1's job. P1 drives on average one hour per week. P1's questionnaire scores are as follows:

- MDSI (driving style) score: 17 ($M = 20.3$, $SD = 10.3$; max. possible score = ± 48 ; positive score = safer driving), indicating a fairly safe driving style
- DRPS (driving risk perception) score: 21 ($M = 6.9$, $SD = 10.3$; max. possible score = ± 30 ; positive score = safer driving), indicating a safe level of risk perception

- ATDS (attitude toward driving) score: 26 ($M = 15.9$, $SD = 13.5$; max. possible score = ± 48 ; positive score = safer driving), indicating safe driving attitudes

Within-case analysis summary.

Cultural model of rural driving. P1's perception of a cultural model of rural driving is well articulated as he has a firm conceptualization of what the public cultural mode is. Within this cultural model, drunk driving is engrained as a norm ("take-it-for-granted drinking and driving doctrine back home"). As such, drunk driving is treated casually and is even pressured on others in P1's rural community. Drunk driving is also just a means to an end, where people perceive a need to drive to their social gatherings; driving home drunk is just a consequence of this need, and one that is seen by P1's peers as normal. Furthermore, P1's peers consider the lack of taxi service to necessarily require drunk driving. That is, other alternative options to drunk driving such as assigning a designated driver, are not seen as realistic options ("I'll be the first to say 'who's DDing' and they'll just say like 'nobody'"). The fact that P1 volunteers to be a designated driver is uncommon in his rural community. Unsafe practices are further entrenched due to a lack of police presence to prevent their occurrence. It also seems that members of this rural community commit reckless driving behaviours (drunk driving, speeding, and "tearing up fields"), sometimes consciously but at other times unconsciously ("disregard or lack of knowledge for driving etiquette").

Individual mental model of driving. A strong individual model of driving has been developed by P1, composed primarily of safe driving practices (e.g., defensive driving, driving within speed limits, and trying to convince others to drive more safely) – reflective of his generally safe scores on the driving questionnaires. A self-described cautious driver, P1 has likely developed this perception in part from his driving history being free of incidents or tickets,

signalling that he is a safe driver. As well, P1's cautious driving comes from his personal motivation to resist passively adopting the unsafe driving behaviours prevalent in his rural community ("my biggest motivator is kind of resisting that take-it-for-granted drinking and driving doctrine back home"). Yet, P1 is willing to transgress traffic laws or rules set by his parents when he perceives them to be low-risk (e.g., "sometimes not stopping at a stop sign if it's 2 AM and we're in Melfort"). Moving to the city posed a large adjustment to P1's MM of driving, allowing him to accrue driving experience in the presence of other vehicles, demanding greater attention than what he was used to back home. This experience has likely also played a part in P1 establishing a fairly safe individual model of driving. Though he does express some difficulty in resisting passively replicating close others' unsafe driving practices ("if I do transgress the rules that [parents] set then I will feel that ... guilt"), P1 tends to avoid perpetuating much of the cultural model of rural driving that he grew up around.

Cultural model of urban driving. P1 has a good understanding of the public cultural model of urban driving. This cultural model is seen as safer than rural driving as drivers comprehend and obey traffic laws, which results in P1 encountering less reckless drivers ("don't have to worry as much about people driving at ridiculous speeds or cutting me off"). This comparatively safe driving appears to largely result from greater likelihood of legal punishment for unsafe driving (enforced road laws, police presence, etc.) and relatedly, greater understanding and adherence to traffic laws (e.g., driving within speed limits and without using a mobile device). For example, P1's friends only drive safer in the city because of legal presence rather than self-determination ("if [my friends] could they would"). Nonetheless, unsafe driving practices still exist in this model ("[drinking and driving] is taken as kind of a norm") – just perhaps to a lesser degree than in the model of rural driving.

Sources of cultural model transmission. The source most impacting P1's private cultural model development is his friends and peers, largely by permitting him to learn vicariously of the negative effects of reckless driving ("learned from a lot of other people's mistakes"). Physical presence of friends is a determining factor of whether P1 will engage in reckless driving, though he still resists such driving if it passes a particular safety limit ("sometimes I will, sometimes I won't, depending on how the roads are"). Furthermore, P1's negative affect resulting from friends' reckless driving reinforces P1's safe driving practices ("upsetting because I refuse to [drink and drive] but there's nothing that I can say that would change [a friend's] mind about it").

Having a more moderate effect on the development of P1's mental model of driving are family members and driving authority. The physical presence of family members impacts P1's driving ("my brothers will make fun of me for not going fast enough") but does not exact long-term change or lead him to commit acts he deems overly unsafe ("if they're not with me I'll drive to my own accord"). As well, P1's sometimes heeds advice from his family members but ignores it when he sees it as questionable (e.g., mom's admonition to not use cruise control). Regarding driving authorities, such as police officers and driver's education instructors, P1 seems to mostly reflect on others' confrontations with drunk driving initiatives and police ("[friends] drive more cautiously because there are more police"), having had few experiences of his own ("I haven't been involved in any driving related incidents"). However, P1 does assert that his current driving practices began with driver's training ("I guess it started with driver's education. They always tell you to drive defensively, not aggressively"), suggesting this has been a formative source for him. Anti-drunk driving campaigns may provide compelling messages, but P1 notes that they do not override the indoctrination of drunk driving held by members of his rural community. Finally, whether or not other drivers follow road laws influences P1's cultural model of driving,

though P1 gave little emphasis to this source or other ways in which it facilitates mental model development, making only a small impression on him.

Modes of cultural model transmission. Of all the modes of cultural model transmission – observation and modeling, overt verbal communication, parenting style, punishment, monitoring, and print educational materials – P1 identifies observation and modeling as the most important to developing his private cultural models of driving. From childhood, P1 has been exposed to the reckless driving of others, which he views as senseless and a demonstration of how *not* to drive (“just watching it happen kind of gives me a pang of ‘don't do that’”). This opinion may be a product of P1 seeing negative repercussions for others’ reckless driving (e.g., being ticketed and involvement in incidents). As well, P1 has seen his mother commit irrational driving behaviours (“my mother will not use the cruise control”) that he opts not to enact in his own driving (though he feels some guilt in enacting behaviours that his mother would not approve of). Thus, it is interesting that observation has a clear and substantial impact on P1’s understanding of driving, and yet he resists replicating many of these observed behaviours.

Driving-related punishment has also been a strong indicator to P1 of cultural models of driving. In his rural community, P1 sees that there is a low probability of being pulled over, which some perceive as inviting unsafe driving practices (“very low probability of getting pulled over”). If others are punished for driving-related behaviours, P1 learns vicariously from observing this, reinforcing his safe driving practices; it is a deterrent from him driving recklessly (“don’t want that to happen to me”). When there are more police present (i.e., city driving), P1 drives more cautiously, as do his rural-raised friends. However, while P1’s friends only drive cautiously in police presence because of fear of legal punishment (not because they care about safety), it appears that P1 does value safety. Yet, P1 is willing to carry out punishable driving

behaviours when he feels certain that he will not cause harm or get caught (“not stopping at a stop sign if it's 2 AM [in rural settings]”).

Having a lesser but still moderate impact in transmitting to P1 cultural models of driving are overt verbal communication and monitoring. Overt verbal communication has illustrated to P1 both safe and unsafe practices evident in cultural models. Instruction from P1's driver's education teacher has taught him defensive driving practices; however, it seems many of P1's rural community members did not internalize this information the way that P1 did. Conversation between P1 and his peers is dominated by their taken-for-granted drunk driving practices, which they mutually promote in each other. Immersed in this community, P1 feels pressured to engage in similar driving practices, but ultimately resists doing so (“it does affect how I think about it, but I don't think it will affect my decision”). Likewise, P1's pleas for others to drive safely are sometimes adhered to in the short-term but are often ignored and do not create long-term behavioural change (“I don't think it will have any lasting behavioural effects”). For monitoring, change is imparted on P1's mental model of driving through the presence of others – especially siblings and friends – while driving, so long as it fits within his perceived threshold of safe driving (“sometimes I will, sometimes I won't, depending on how the roads are”). However, little of P1's dialogue focused on monitoring.

Similarly, little data is available on the parenting style of P1's parents. Though, what is available indicates that parenting style has a low impact on conveying cultural models to P1. While rules are set by P1's parents against unsafe driving practices (e.g., drunk driving, speeding, mobile phone use), it seems that he has been against such practices from a young age, before these driving rules were set. Other rules are seen by P1 as illogical (e.g., not using cruise control), which P1 ignores, albeit with a little guilt (“I'll [use cruise control] anyway and I just

have a bit of a twinge of guilt”). Otherwise, P1’s parents provide him with freedom in deciding how to drive, though it is not clear exactly how this impacts his MM of rural driving.

Between-case Analyses

Between-case componential analysis: Cultural model of rural driving. Given that all participants were raised rurally, it is unsurprising that each holds a strong understanding of the cultural model of rural driving. The nature of driving according to the cultural model of rural driving is generally seen as unsafe and reckless, though a minority of participants consider there to be a cautious aspect as well. Beginning with the majority opinion, all participants recognize that being raised in their rural communities often exposed them to *reckless driving* (P1, P2, P3, P4, P5, P6, P7). Of the various reckless driving behaviours experienced, participants most often see or hear about rural community members speeding (P1, P2, P3, P4, P5, P6). Two participants self-reported having internalized this tendency to speed, with P6 speeding “because my friends do it” and P4 speeding only “to the point of being safe” – avoiding speeding on “washboards” because of the danger involved (gravel roads with a corrugated texture due to long-term use by vehicles). Other reckless forms of driving seen by participants include stunting (e.g., sliding, swerving, and tricks; P1, P5) and ignoring signage (e.g., running stop signs; P1, P2). Adding to this acceptance of reckless driving in the cultural model of rural driving are community members’ negative attitudes toward cautious driving (P1, P5, P7); for instance, P7 stated that “nobody really cares that the rules are being broken or that people's safety is at risk”.

Drunk driving, a reckless behaviour warranting its own in-depth discussion, is central to the danger associated with the cultural model of rural driving (“that take-it-for-granted drinking and driving doctrine back home”; P1). Even though high school driver’s training clearly outlines the hazards of drunk driving (“in driver’s education, they discuss drunk driving ... that probably

affected the way that I think about it now for sure”; P4), many rural students drive drunk regardless (“in high school definitely was the most that I've seen [people drive drunk]”; P4). The prevalence of drunk driving could be in part due to rural drinking culture, with youth typically drinking from a young age predating high school driver’s training (P4). According to P7, drunk driving may be further imparted on males who are primarily the perpetrators, with it being “more socially acceptable for women to [be designated drivers] ... But when men do that they're seen as pussies”. While only three participants spoke of drunk driving as an issue in rural communities (it was not asked about in interview questions), these participants spoke at length on the topic, revealing that it is deeply entrenched in rural culture (e.g., “part of almost Saskatchewan culture” (P1); “they start drinking when they're a lot younger” (P4); “drinking culture itself is a big thing” (P7)).

Provided that drunk driving is interwoven with rural culture, some participants see youth in the community pressuring each other to engage in the behaviour (P1, P7), though all participants who discussed drunk driving self-reported not doing it themselves. This problem extends beyond youth, at least in the eyes of P7 who spoke of a peers’ parent who had a breathalyzer installed in her vehicle following an impaired driving conviction: “they would just get their kid to blow in [the breathalyzer] because the parent didn't want to quit drinking and driving”. Along with parents being part of the problem, drunk driving may be encouraged by a lack of taxi service in the community and disregard for designating sober drivers (“I'll be the first to say ‘who’s DDing’ and they'll just say like ‘nobody’”; P1), leaving no alternatives to drunk driving in many cases (P1, P7).

Another primary reason for drunk driving is the lack of punishment that it warrants. Socially, drunk driving is essentially respected among youth (P1, P4, P7). For example, “if

someone gets a DUI ... there's no social repercussions; everyone just kind of gives them a pat on the back" (P7). Legally too, drunk driving is not strongly deterred because of the low police presence in rural communities (P1, P2, P3, P6). Drunk driving is more likely to continue if left unpunished. For instance, paraphrasing the typical rural youth, P7 remarked "I've done it this way forever and no problems thus far". Low police presence also signifies to participants that traffic laws are flexible within the cultural model of rural driving – there is a low probability of being pulled over (P1) and there is "no one out there to see how fast you're driving" (P2). The flexibility of traffic laws is further demonstrated by P7 who notes that exceeding maximum passenger capacity is permissible even by parents and police, given it is the "lesser of two evils" (i.e., drunk driving).

Beyond reckless driving, the cultural model of rural driving can also be associated with danger because of *environmental factors*. Particularly, two participants (P3, P7) cautioned that rural drivers must be alert to wildlife ("out of nowhere three deer came ... they came out of nowhere"; P3). However, the only distractor in rural areas other than wildlife may be children when driving in town (P5). Otherwise, rural driving involves very little traffic (P2, P6) and few distractors (P3, P6). With minimal traffic and distractors, it is apparent that the cultural model of rural driving in fact has some safe aspects to it.

Another element of safety within the cultural model of rural driving is youth *learning to drive at a young age*. Some participants learned to drive automobiles or farm equipment at a young age (P3; P4), while others learned to drive smaller vehicles like quads or dirt bikes (P5) – "young" referring anywhere from 4-13 years old. Regardless of vehicle type, participants consider learning to drive at a young age as commonplace in rural communities (P3, P4, P5). While this practice may seem unsafe to outsiders, participants spoke highly of its practicality,

enabling individuals to support family farm operations (P3), apply for particular job opportunities (P4), and provide help during emergencies (P4). As well, P3 sees positive effects to stem from relieved anxiety later in driver’s education: “drive while you’re young so you aren’t so anxious when the time comes to do all the tests and what not”.

Driving safety is also preserved in rural communities by participants’ *resistance to reckless driving*. Exposure to reckless driving elicits negative affect (e.g., fear) from some participants (P5, P6), discouraging them to adopt similar behaviours. Additionally, a minority of participants see safe driving practices as part of the cultural model of rural driving (P5, P6). Specifically, these participants’ family members set positive driving examples that encourage participants to do the same (“[my parents] would always set like good examples ... always calm with them which has influenced me to try to be a good driver”; P6).

Key elements of participants’ narratives that converged (i.e., were agreed upon) and diverged (i.e., were disagreed upon) are illustrated in the following table:

Convergences	Divergences
<ul style="list-style-type: none"> • Reckless driving (e.g., speeding, stunting, and ignoring signage) • Drunk driving entrenched in rural culture • Self-reported abstinence from drunk driving • Low police presence in rural communities • Few distractors, except for wildlife • Rural youth learning to drive at a young age 	<ul style="list-style-type: none"> • Perception of rural driving as safe (P5, P6) • Self-reported violation of traffic laws under specific situations (P1, P7)

Between-case componential analysis: Individual mental model of driving. All but two participants indicated in their narratives that they generally hold a cautious driving style (P1, P2, P3, P5, P6), with the other participants expressing angry (P4) and anxious (P7) driving styles. These findings are consistent with participants’ driving questionnaire scores (see Table 3-2).

Furthermore, a few participants drive slower or more cautiously on poor road conditions (e.g., gravel, ice, low visibility; P2, P3, P5), adding to their adherence to traffic safety.

As stated in the previous subsection, nearly half of participants learned to drive at a young age, either with automobiles and farm equipment (P3, P4) or smaller vehicles (e.g., quads or dirt bikes; P5). Learning to drive at a young age is considered by participants to be beneficial, giving them confidence in confronting new driving situations (P3, P4, P5). Essentially, the sooner one begins accruing driving experience, the sooner their individual model of driving is established. Despite a robust individual model of driving, most participants explicitly indicated a preference for rural (P2, P3) or highway (P4, P5, P7) driving over urban driving.

Transitioning from rural driving to urban driving has largely impacted the individual models of driving for most participants (P1, P2, P6, P7); for some, this change is partly owed to inadequate driver's training or the simplicity of rural driving (P6, P7). Particularly, participants' individual models have undergone drastic change in learning to drive among high volumes of traffic (P1, P2, P5) and pedestrians (P3), typically resulting in greater vigilance and caution ("more cautious out here [in Saskatoon] because you're paying attention to pedestrians ... I do drive way more cautiously"; P3), but in one participant higher tendency to speed as other drivers do (P5). The presence of passengers when participants are driving has a similarly divisive effect. That is, participants drive more carefully when travelling with passengers, given their care for passenger safety (P5, P6) or passengers' ability to spot road hazards (P2). Yet, P3 finds passengers to be distracting, contributing to unsafe driving practices.

Though the vast majority of participants hold strong individual mental models of driving, P7's individual model appears to be underdeveloped, due primarily to a lack of driving experience. P7 outwardly stated in her interview that "I don't like driving" and indicated that she

actively avoids it. This aversion to driving stems from a lack of driving experience – P7 feels that she is “not prepared for everything that driving has” because of inadequate driver’s education that trained her only in rural areas and relied on her parents who she sees as poor drivers and teachers.

Key elements of participants’ narratives that converged (i.e., agreed upon) and diverged (i.e., disagreed upon) are illustrated in the following table:

Convergences	Divergences
<ul style="list-style-type: none"> • Cautious driving style • Safety of participants’ individual mental models of driving represented in narratives coincide with driving safety questionnaire scores • Large adjustment to driving practices required when moving from rural to urban driving • Preference for rural or highway driving over city driving • Driving with passengers increases safety as participants care for their safety and they can act as spotters for road hazards • Avoid adopting unsafe driving practices exhibited by other drivers • Experience with driving incidents and (not) receiving traffic tickets are formative experiences 	<ul style="list-style-type: none"> • Angry (P4) and anxious (P7) driving styles • Responding to high traffic volume by speeding (P5) • Driving with passengers is distracting and unsafe (P3) • Underdeveloped individual mental model of driving (P7)

Between-case componential analysis: Cultural model of urban driving. The cultural model of urban driving was described by participants primarily as conducive to unsafe driving, though not as unsafe as the cultural model of rural driving. Reflecting the *danger of city driving*, some participants described it as scary (P3), daunting (P3, P6), or anxiety-inducing (P3, P7). The aspects of city driving that participants consider unsafe include disregard for traffic laws, driver impatience and aggression, and environmental factors and distractors. Beginning with traffic laws, participants recounted seeing city drivers speed (P5), cut others off (P4) and drive drunk

(P1, P4). In fact, P1 stated that drunk driving “is taken as kind of a norm” in the city, also reflected in P4’s interview, though not as problematic in the city as in rural settings. Disrespect for traffic regulation (e.g., signage and traffic lights) is also seen as an issue by P2, adding to the somewhat dangerous nature of city driving.

Ignoring traffic regulation seems partially a result of city drivers’ *impatience or aggression* (“you don't go fast enough, people are going to honk at you”; P2). Other participants also agreed that drivers tend to travel over the speed limit on city streets, often to avoid stopping at red lights (P2, P3, P4, P5). For one participant, this behaviour is hard to ignore, resulting in her also driving aggressively in the city at times (“I just get really mad [driving in the city]”; P4). Describing city drivers’ aggression, P3 said:

People in the city ... are way more aggressive than people who were driving around the small town where I grew up ... not like everyone who lives in the city is aggressive and less cautious. There is just a lot of aggression.

Here, it seems that the impatience and aggression exhibited by city drivers may simply be a product of a large and condensed population – greater traffic means greater difficulty in getting from point A to B.

City drivers’ impatience and aggression may also be in response to another key component that participants perceive to be in the cultural model of urban driving – *environmental factors and distractors*. Many participants feel that they must be more cautious and vigilant driving in the city than in rural areas due to environmental factors and distractors (P2, P3, P4, P6, P7). The primary distractor appears to be the higher volume of traffic in the city, requiring drivers to pay attention to many more vehicles than in urban areas (P2, P3, P4). Pedestrians create a further demand for drivers’ attention; for example, when unpredictably

crossing streets (“I just have to watch for other people walking because it seems like everyone is getting hit lately”; P3). Traffic regulation (e.g., signage, lights, and speed limits) is also a notable distraction for some participants while city driving, constantly drawing on their cognitive resources (P3, P6).

Despite the negative impact that environmental factors can have on participants’ driving, the function of these factors to *impose traffic laws in a clear and comprehensible manner* is part of why several participants associate the cultural model of urban driving with safety, at least more so than the model of rural driving (P1, P3, P7). In fact, one participant finds it “easier to drive” in the city than in rural areas (P1), counter to many other participants’ opinions above, due to a perceived clarity of and respect for traffic laws. Of course, legal enforcement of traffic laws also goes a long way to increase the safety of city driving. Many participants see the cultural model of urban driving as intolerant of reckless driving thanks to the high visibility of police in the city (P1, P2, P3, P6), as well as speed cameras (P2, P3). It may primarily be this law enforcement presence that keeps drivers in line. For instance, P1 remarked seeing his friends, regularly unsafe drivers, driving more cautiously in urban areas (“they won’t use their cell phones and won’t drive recklessly”; “if they could [drive like they do back home] they would”).

Scarce information could be drawn from some participants about the cultural model of urban driving, suggesting their private cultural models of urban driving are possibly underdeveloped (P2, P4, P5, P6, P7). This finding could be due to participants’ inexperience with city driving or their aversion to it. One participant, who infrequently spoke of city driving, explicitly spoke of disliking and avoiding city driving (P7). For most other participants, inexperience seems plausible given that they are 18 years old and have thus likely moved to the city only recently, having lived in their rural communities at least until high school graduation

(P4, P5, P6). In the case of P2, though she drives primarily in the city (e.g., University of Saskatchewan campus and surrounding area), her residence is in a rural community 30 minutes outside of Saskatoon, limiting her overall city driving time.

Key elements of participants’ narratives that converged (i.e., agreed upon) and diverged (i.e., disagreed upon) are illustrated in the following table:

Convergences	Divergences
<ul style="list-style-type: none"> • City driving is dangerous, but less so than rural driving • Others’ disregard for traffic laws • Driver impatience and aggression • Many environmental factors and distractors (traffic, pedestrians, signage, etc.) • High visibility of traffic regulation (police, traffic lights, signage, etc.) • Potentially underdeveloped cultural models of urban driving 	<ul style="list-style-type: none"> • Most participants described themselves as safe drivers, while P4 spoke of her aggressive driving behaviours • While most participants prefer driving in rural areas, P1 prefers city driving due to a perceived clarity of and respect for traffic laws

Between-case analysis: Observation and modeling. Interview data show that three participants consider observation and modeling a highly impactful (P2, P5, P7) mode of cultural model transmission and four participants see it as moderately impactful (P1, P3, P4, P6). As well, observation and modeling was cited by two participants (P1, P7) as the most influential mode of model transmission (or one of the most influential modes, in cases where a participant specified more than one mode as most influential).

Observation and modeling as an effective transmitter of cultural models. Observation and modeling frequently conveys to participants unsafe aspects of cultural models of driving. All participants indicated having observed others’ reckless driving behaviours from a young age, including drunk driving, road rage, speeding, and stunting (P1, P2, P3, P4, P5, P6, P7). In watching others model these unsafe behaviours, participants often witness negative repercussions, including driving-related incidents and collisions (P1, P6), as well as others being

pulled over and/or ticketed (P1, P7). As such, participants can learn of cultural models of driving vicariously through others' experiences. Through observation, a few participants have also noted that males are usually the perpetrators of reckless driving behaviours (P2, P4, P7), though there are exceptions to this generalization as P5 spoke to her brother's safe driving habits ("my brother especially, he's always hands on ten and two ... I guess it's good that [family members] are cautious"). Interestingly, instances of unsafe driving most often involve participants' friends (P1, P2, P3, P5, P6, P7), suggesting peer groups are a natural target for driving safety intervention.

Despite the prevalence with which participants view unsafe driving behaviours, they also see many instances of cultural models of safe driving. Close others, especially parents (P3, P4, P5, P6), demonstrate safe driving practices to participants (P2, P3, P4, P5, P6), such as defensive driving, shoulder checking, and respecting the speed limit. In her interview, P4 stated "[parents] would always set good examples. They would never go over the speed or do anything to scare me ... always calm with them which has influenced me to try to be a good driver and be careful". The last part of this quote shows that P6 is apt to internalize the safe driving behaviours she observes, a point also expressed by other participants (P3, P4, P5).

Most participants internalize elements of the cultural models of driving that they observe, yet there is a mix of internalizing safe (P3, P5, P6) versus unsafe (P4, P5, P6) driving practices. For instance, P5 remarked, "[I] drive cautiously because my parents drove really cautious but not as cautious because ... my friends drive and they're a lot more reckless". Thus, P5 internalizes the safe driving practices of her parents, but also unsafe practices of her friends. Overall, it seems like observation and modeling is proficient in relaying cultural model information and quite successful in inducing participants to internalize this information, adopting the behaviours for themselves.

Observation and modeling as an ineffective transmitter of cultural models. More unanimous than internalization of observed behaviours is the ability of participants to resist internalizing unsafe driving behaviours. That is, although roughly half of participants reportedly internalized elements of cultural models of driving, all have actively rejected unsafe elements. Participants collectively and regularly utilize others' reckless driving behaviours as examples of how *not* to drive (P1, P2, P3, P4, P5, P6, P7); for example, P6 declared, "I feel like [friends] drive pretty dangerously at times ... I'm going to drive more cautiously myself because I don't want to put other people in danger". This purposeful resistance against adopting others' driving practices, which may stem from the fear that such practices instils in participants (P5, P6), stands as the strongest piece of evidence against observation and modeling as an omnipotent mode of cultural model transmission.

Key elements of participants' narratives that converged (i.e., agreed upon) and diverged (i.e., disagreed upon) are illustrated in the following table:

Convergences	Divergences
<ul style="list-style-type: none"> • Highly influential mode of cultural model transmission • Frequently conveys unsafe elements of cultural models of driving (e.g., drunk driving, road rage, speeding, and stunting) • Nearly as often as unsafe aspects, demonstrates safe aspects of cultural models of driving (e.g., obeying the speed limit) • Potential gender effect where males tend to be the perpetrators of reckless driving behaviours • Internalization of observed driving practices • Ability to actively reject internalizing others' unsafe driving behaviours • Friends and peers demonstrate unsafe driving behaviours; parents, safe behaviours 	<ul style="list-style-type: none"> • Discrepant internalization of observed <i>safe</i> (P3, P5, P6) versus <i>unsafe</i> driving behaviours (P4, P5, P6)

Between-case analysis: Overt verbal communication. Participant interviews suggest that overt verbal communication ranges from a highly (P4, P6) to moderately impactful (P1, P2, P3, P5, P7) mode of cultural model transmission. Additionally, two participants rated overt verbal communication as among the modes most influential for them (P4, P6).

Overt verbal communication as an effective transmitter of cultural models. All participants reported learning of cultural models of driving through overt verbal communication (P1, P2, P3, P4, P5, P6, P7). Especially conducive to this mode's effectiveness is the role of parents – conversation with parents was consistently referred to by a few participants (P4, P5, P6) as crucial to learning about driving (“I feel like [the most influential mode] would just be my parents because they're the ones who basically taught me how to drive. So, I listen to them the most”; P6).

Overt verbal communication is also often successful in relaying to participants cultural models of driving when communication is focused on the dangers of driving. Speaking to others about incident statistics (P2), drunk driving prevalence (P4), and the need for defensive driving (P1, P4) added to participants' understanding of cultural models of driving and helped participants to accept safe driving practices. Similar effects take place when the dangers of driving are presented through personal stories. For example, participants drive more cautiously after hearing near-miss stories (“don't like driving at night because other people have had near misses”; P3), stories of others' incidents (P5, P7), and news stories about pedestrians being struck by vehicles (P3). Stories that portray speeding as acceptable in rural areas similarly offer some participants (P3, P5) information of cultural models of driving, resulting in participants driving more safely afterwards (“[a friend] said she would ... drive on the gravel road so that she

could drive faster and have a less chance of meeting a cop ... influenced me in a way where like, wow, people actually do that”; P3).

Overt verbal communication can convey messages through either active or passive engagement. That is, learning of cultural models of driving sometimes requires participants to actively engaging in conversation (“[parents] didn’t really say anything unless I asked”; P5), yet participants may also absorb knowledge from passive engagement, such as overhearing driving-related conversations between family members (P4), or relevant noticing news stories on the television (P3).

Overt verbal communication as an ineffective transmitter of cultural models. Nearly half of participants opined that overt verbal communication, though effective in transmitting cultural models, is ineffective in imparting behavioural change, whether considering a teacher talking to students (P7) or friends talking amongst each other (P1, P4, P7). For example, P1 stated, “If I’m serious enough [when telling friends to stop driving recklessly], they will stop. But I don’t think it will have any lasting behavioural effects”. Furthermore, P1 considered that anti-drunk driving initiatives “don’t override the whole ritual that people seem to have adopted” of drunk driving (P1). Thus, overt verbal communication may be relied on to convey to drivers cultural models of driving but are insufficient alone in developing mental models of safe driving.

Key elements of participants’ narratives that converged (i.e., were agreed upon) and diverged (i.e., were disagreed upon) are illustrated in the following table:

Convergences	Divergences
<ul style="list-style-type: none"> • Pervasive mode of communication • Impactful when topics surround the dangers of driving or are spoken as personal stories • Though effective in transmitting cultural models, fairly ineffective in creating behavioural change 	<ul style="list-style-type: none"> • Driving advice given by others relays a mix of safe (P1, P2, P4, P6) and unsafe (P1, P3, P5, P6) driving practices

Between-case analysis: Parenting style. Participants described the strength of parenting style in conveying cultural models of driving as ranging from high (P2, P3, P4, P6), to moderate (P5, P7), to low (P1). As well, three participants designated this mode as being among the most influential (P3, P4, P6). Although parenting styles were not assessed through rigorously validated measures, participant narratives give some indication to their orientation. Participants most often spoke of their parents exhibiting an authoritative parenting style (P2, P3, P4, P6). As for the other participants, one (P7) indicated her parents embodying a permissive style, another (P1) was inconclusive given limited data, and P5 reported her parents varying their parenting styles (mother switching between authoritative and permissive styles; father shifting from uninvolved to authoritarian).

Parenting style as an effective transmitter of cultural models. A primary feature of parenting style, rule setting (or lack of) conveys to participants driving practices that are and are not acceptable within cultural models of driving. Participants are fairly split on having had driving-related rules set by parents, with some self-reporting having rules (P1, P3, P5, P6) and others self-reporting little to no rules (P2, P4, P7). Participants cited having rules against drunk driving (P1), mobile device use (P1), and speeding (P1, P5), suggesting to participants that these behaviours are unacceptable. Little information is available across participants on how closely they adhere to rules, but there is some indication that rules are respected (P2) and perceived as “good” (P2). However, lack of rules is also seen as a positive thing by another participant (“I enjoyed the freedom”; P7). Even lacking rules, P7 is respectful of her parents: “I held [parents’ trust] in high regards because I knew that it can be gone”. Therefore, youth will not necessarily drive recklessly if their parents choose not to set driving-related rules.

The support and trust that parents show their children is another core element of parenting style, which can help convey cultural models of driving. For example, P2 stated, “I feel like [parents] wouldn't trust me at all [if they set lots of rules] and feel like I wasn't a good driver”. This excerpt, echoed by several participants (P2, P3, P4, P7), suggests that a parent’s trust can impart to participants what a “good driver” is within a particular cultural model. Trust is also shown by parents who allowed participants to drive at a young age, far before licensure (P3, P4). By driving at a young age, these participants were able to learn of the cultural model of rural driving early on in life (“being more lenient and open to early exposure was really nice, and I think has really benefited me in the long run”; P3).

Lastly, warmth and affect (or lack of) are central to parenting style. However, few participants commented on this component. Speaking of her driving-related incidents, P5 acknowledged, “when my dad would be mad at me at something that would happen ... I just feel really bad about it and not want it to happen again”. As such, it seems that a lack of warmth may be an effective deterrent to careless driving, though potentially problematic in other respects (e.g., emotional well-being). This finding is one of just a few instances where participants indicated whether they internalize the information gained from parenting style regarding cultural models of driving, despite a respectable amount of information on how parenting style conveys these cultural models. Only one other participant implicated parenting style in altering their driving practices (“I’ll be driving and still have their voice in my head like, ‘I should not turn my corners too fast’ ... it’s helped me”; P6).

Parenting style as an ineffective transmitter of cultural models. Across participants, very little can be said for parenting style as an ineffective transmitter of cultural models of driving. The main finding in this regard comes from a sole participant. For P5, inconsistent parenting

styles nullifies this mode’s ability to communicate cultural models. Specifically, P5’s mother has switched between authoritative and permissive parenting styles regarding driving practices (“she would be very concerned about what was going on ... but then she would go back to not caring”) and her father was uninvolved in P5’s driving when she first got her license but has since taken on an authoritarian style (“he got extremely controlling and angry all the time about it”). This variability results in information communicated through parenting style being perceived as unreliable.

Key elements of participants’ narratives that converged (i.e., were agreed upon) and diverged (i.e., were disagreed upon) are illustrated in the following table:

Convergences	Divergences
<ul style="list-style-type: none"> • Parents mostly exhibit authoritative parenting styles • Parents’ support and trust convey to participants that they are driving appropriately for their local cultural model 	<ul style="list-style-type: none"> • Parents of two participants show parenting styles other than authoritative: permissive (P7) or mixed (P5) • Some parents implement driving-related rules (P1, P3, P5, P6); others do not (P2, P4, P7)

Between-case analysis: Punishment. Based on interview data, six participants find punishment to be a highly influential mode of cultural model transmission (P1, P2, P3, P4, P5, P7); one participant sees it as moderately influential (P6). Furthermore, punishment was explicitly identified by four participants (P2, P3, P4, P5) as the most impactful mode of model transmission (or one of the most influential modes, in cases where a participant specified more than one mode as most influential).

Punishment as an effective transmitter of cultural models. Regardless of setting, punishment tends to impact participants’ mental models of driving by causing them to drive more cautiously or slowly in the future (P1, P2, P3, P4, P5). This change is partly manifested in participants seeking to avoid the act they were punished for, or saw others punished for (e.g.,

parallel parking, drunk driving, or driving during icy conditions; P3, P4, P5). In fact, fear seems to be the primary method through which punishment operates, instigating change in participants' mental models of driving by emphasizing unfavourable aspects of cultural models of rural driving (e.g., physical harm, licence being revoked, or receiving a ticket; P2, P3, P4, P5).

All participants discussed punishment in terms of legal repercussions (e.g., being ticketed). However, other forms of punishment also relay to participants cultural models of driving, including punishment surround personal safety (“not want to fall into that statistic”; P2), revoking or withholding privilege (e.g., failing driver's exam or license being revoked; P3, P7), finances (“my dad got a few speeding tickets ... they get pretty expensive”; P4), and social disapproval (“when my dad would be mad at me at something that would happen ... I just feel really bad about it and not want it to happen again”; P5) – or social approval in the case of “non-punishment” (“if someone gets a DUI ... everyone just kind of gives them a pat on the back”; P7). Thus, efforts to affect young rural drivers' mental models can capitalize on the various forms of punishment: legal, personal safety, financial, and social.

The element of punishment touched on most commonly is perhaps the presence/absence of traffic regulation (primarily, police officers), which conveys to most participants how safely or unsafely people are expected to drive within a cultural model of driving (P1, P2, P3, P6, P7). Traffic law violation is seen as punishment via police officers (P1, P2, P3, P6, P7) and other means of traffic regulation, such as signage, traffic lights, and photo radar (P1, P2, P3, P4). One participant (P1) importantly contests that people tend to drive safely in the city because of enforcement, rather than self-determination (“more to do with enforcement [than] ... wanting to drive more safely”), suggesting that traffic safety may suffer as visibility of traffic regulation is

reduced. As such, a reliable physical presence of traffic regulation – whether officers, signage, photo radars, etc. – indicates that unsafe driving practices are not tolerated.

Others' punishments have also helped participants to develop their mental models of driving by exemplifying what they should not do while driving (P1, P4, P5, P7), correspondingly reported above (see *Between-case analysis: Observation and modeling*). Specifically, participants reported seeing friends and peers experiencing incidents involving environmental elements (wildlife and bodies of water; P4, P7), as well as drinking and driving (P4). The nature of other examples of poor driving were not specified (e.g., “watching people mess up ... reinforces ... driving responsibly”; P1). In similar driving-related incidents, especially in rural communities, it is not uncommon for participants to blame the incident on circumstantial factors (e.g., loose gravel, ice, or luck; P2, P4, P5, P7), indicating to participants that driving in these areas is dangerous.

It is interesting to note that transgressing traffic laws alters participants' mental models of driving, dependent on whether or not they were punished. That is, participants who have been punished for breaking the rules (e.g., backing into someone while parallel parking) drive more cautiously afterwards (P2, P3, P5), while those who have not been punished for violating the rules (e.g., running a stop sign) report continuing to conduct these actions (P1, P7).

Punishment as an ineffective transmitter of cultural models. Though punishment has been integral for most participants in understanding cultural models of driving, for one participant the story is different (P6) – her mental model of driving is fairly unaffected by punishment, perhaps a product of never being legally punished for her driving (“never been stopped or warned or anything”). This phenomenon is a logical fallacy known as *appeal to ignorance*, where x is true because x has not been proven false and is evident for several participants (P1, P3, P4, P6, P7) in

them expressing consistent and enduring driving practices because these practices have not been proven inappropriate (e.g., “I would say not getting any tickets makes me a better driver than other people”; P4).

Similarly, punishment appears to be an ineffective transmitter of cultural models when participants are unaware or unaccepting of the reason for their punishment. For example, P2 expressed that “[accidents] just keep happening and I’m not really sure why” and that receiving a ticket for her accident “made me angry because I felt like it was an unfair ticket”. Here, P2 suggests that she is unaware of the cause of her accidents and finds the punishment to be unfair. Thus, P2 does not seem to be drawing any information from punishment regarding the cultural model of rural driving in this example.

Lastly, though a lack of police presence can indicate a cultural model being permissive of unsafe driving behaviours, it can also mean missed opportunities to experience cultural models of driving. For instance, that P3 has “never been pulled over” or P6 has “never been stopped or warned or anything” shows they receive no legal punishment for violating traffic laws and thus are missing out on this mode as gauge of the local cultural model of driving. In this sense, a constant lack of visible regulation results in a lower likelihood of punishment and thus a reduction in its effectiveness.

Key elements of participants’ narratives that converged (i.e., agreed upon) and diverged (i.e., disagreed upon) are illustrated in the following table:

Convergences	Divergences
<ul style="list-style-type: none"> • Highly influential mode of cultural model transmission • Induces cautious or slow driving • Operates through fear • Experiences (direct or indirect) with legal punishment • Punishment primarily given by police (or speed cameras) for violating traffic law • Learning vicariously through others' punishments • Blame for incidents placed on environmental (not personal) factors • Appeal to ignorance as justification for current driving practices 	<ul style="list-style-type: none"> • Diverse means of punishment, including personal safety, privilege, finances, and social disapproval • Punishment less effective for those who have never been legally punished for driving (P1, P3, P4, P6, P7)

Between-case analysis: Monitoring. Interview data suggest that monitoring has a moderate impact on cultural model transmission for four participants (P1, P2, P6, P7) and low impact for three participants (P3, P4, P5).

Monitoring as an effective transmitter of cultural models. Monitoring was most often spoken of in association with vehicle speed. Passengers, by keeping watch and commenting on participants' driving, convey to participants what speed is acceptable in cultural models of driving, whether that involves disobeying (P1, P4) or obeying the speed limit (P2, P5, P6). For example, P1 notes that "my brothers will make fun of me for not going fast enough" when driving in his rural hometown, indicating that disobeying the speed limit is part of the cultural model of rural driving. Conversely, P5 finds that when she is "basically just driving in town [my father is] saying, 'well you don't have to drive that fast' and I'll be like driving 40", suggesting to her that the cultural model of rural driving involves obeying the speed limit.

Whenever participants' friends (P1, P2, P7) and family (P1, P6) are the "monitorers", given the respect participants hold for them, the impact of monitoring on participants' mental

model development is increased. However, regardless of context, participants speak of monitoring mostly as an ineffective mode of model transmission.

Monitoring as an ineffective transmitter of cultural models. Some participants treat monitoring as an optional mode of influence, where they will pay attention when convenient, but otherwise ignore it (P1, P3, P4); for instance, P4 remarks that “I don't usually listen to [passengers] ... Yeah, I don't feel very pressured”. Likewise, P3 states, “I don't really take extreme measures to accommodate [passengers]”. Additionally, one participant talks of how he will override the influence of monitoring if he perceives driving conditions to be poor (“sometimes I will [alter driving behaviour for passengers], sometimes I won't, depending on how the roads are”; P1).

Clearly, monitoring is not effective when participants are inattentive to their passengers' actions: “my parents, they don't really police my driving” (P1); “[friends are] on their phones and not even paying attention” (P6). Here, by not actively monitoring participants' driving actions, passengers are nullifying the ability of this mode to transmit cultural model information.

Lastly, participants' perceptions of their passengers affect the degree to which monitoring is a mode capable of cultural model transmission. Specifically, the effectiveness of monitoring on shaping participants' mental models of driving is weakened when participants are subjected to parents' negative demeanour (“my dad was like “just go in there!” It did not help”; P2) or perceive them to be unskilled drivers:

With my parents in the passenger seat, they would often just tell me, “oh don't do that”.

“Well what am I supposed to do?”

“I don't know, just don't do that”.

Like they don't have the skills to teach.

Key elements of participants’ narratives that converged (i.e., agreed upon) and diverged (i.e., disagreed upon) are illustrated in the following table:

Convergences	Divergences
<ul style="list-style-type: none"> • Conveys acceptable driving speed within cultural models • Respect for family and friends boosts strength of monitoring when they are involved • Attending to others’ monitoring is optional, dependent on factors like convenience and road conditions 	<ul style="list-style-type: none"> • Monitoring sometimes indicates that participants are to obey speed limits and other times disobey them

Between-case analysis: Print educational material. Little information on print educational material was uncovered through participant interviews, in part because this mode was not explicitly asked about by interviewers. Rather, this mode was drawn inductively from interviews. For most participants, it is unclear how strongly print educational material relays cultural models of driving (P1, P2, P3, P4, P5, P6), though one participant indicates this mode having only a low influence (P7).

The only participant to consider print educational material being potentially effective in conveying cultural models is P4, positing that, “I also took driver training through SGI or whatever you do in high school here ... that helps to learn”. While print educational materials are a large part of high school driver’s training, it is not clear how much this was responsible for P4 finding the training helpful. Similarly, P4 spoke of her dad helping her to learn from a driver’s manual (“dad was the one who was kind of helping me learn how to drive, doing the whole book that you do”), but again it cannot be identified how much this “book” taught P4 of cultural models of driving or to what degree she internalized this information.

Participants provided more clarity when discussing the ineffectiveness of print educational materials in transmitting cultural models. Both P3 and P7 compare learning about

driving experientially versus through text, favouring the former. For example, P3 mentioned, “I learned some really good skills [driving at a young age] ... I’ve learned all that stuff in a realistic thing rather than reading it in a book”. Likewise, P7 acknowledges having trouble remembering what she read in her training manual, compared to speaking with her driving instructor or parents, likening it to cooking: “you can't learn to cook without getting in the kitchen”. For these two participants, print educational material is relatively ineffective in impacting their mental models; however, generalizations are hard to draw considering the majority of participants did not deliberate on this mode.

Key elements of participants’ narratives that converged (i.e., agreed upon) and diverged (i.e., disagreed upon) are illustrated in the following table:

Convergences	Divergences
<ul style="list-style-type: none"> • Less impactful in conveying cultural models than experiential learning 	<ul style="list-style-type: none"> • N/A

Between-case analysis: Family. Interview data suggest that family is a highly impactful source for transmitting cultural models of driving among four participants (P3, P4, P5, P6) and moderately impactful for three participants (P1, P2, P7).

Parents as an effective source of cultural model transmission. All participants recognize parents as transmitting cultural models of driving to at least some degree (P1, P2, P3, P4, P5, P6, P7), while most participants also consider their siblings as a source of transmission for this model (P1, P3, P4, P5, P6). Other family members contributing to participants’ mental models of driving include grandparents (“my grandma ... had rolled her van like a bunch of times and she was in a rural area”; P4) and cousins (“I've had two cousins who have passed away from car crashes ... It's really eye-opening of what can happen”; P7).

Safe driving practices are typically performed by participants' parents (P3, P4, P5, P6), though P7 finds that her parents "aren't very good drivers". As well, P1 reported that "I have had family ... drink and drive" but did not specify which family members. In contrast, participants' siblings are seen as embodying a mix of unsafe driving practices (P1, P3, P4) – such as speeding and aggressive driving – and safe ones (P5, P6). Thus, participants experience a bit of push and pull, where family members are portraying conflicting representations of cultural models of driving.

A couple of participants (P5, P7) reported learning of cultural models of driving through their parents' emotions. Specifically, P5's father utilizes fear to demonstrate the importance of cautious driving ("I got in a small accident and like the car was fine and stuff, but [father] was mad. So, I was more cautious after that.") and P7's mother, through her demeanour, demonstrates that city driving is something to be nervous over ("a nervous driver in the city so then [mother's] an even more nervous driver trying to teach me to drive in the city").

Despite the mix of safe and unsafe driving practices that participants encounter through family members, the majority of practices internalized by participants are safe ones (P3, P4, P5, P6). For example, P4 reflected, "dad talking about like, 'oh backing off of other vehicles' ... I consciously think about that and back off of other vehicles". This finding applies to both parents (P3, P4, P5, P6) and siblings (P5, P6), and is consistent with the result reported above of participants' individual mental models of driving buffering against adopting others' unsafe driving behaviours (see *Between-case analysis: Individual mental model of driving*). The inclination toward internalizing parents' safe driving behaviours may also be due to participants seeing their parents as important driving teachers (P3, P4, P5, P6). For instance, when asked about the most influential mode of cultural model transmission P6 noted, "I feel like it would just

be my parents because they're the ones who basically taught me how to drive. So, I listen to them the most".

Parents as an ineffective source of cultural model transmission. The perception of family members as poor drivers can hamper their ability to inform participants of cultural models (“if your parents aren’t very good drivers then you don't really have anyone else to ask questions”; P7). Lack of punishment can similarly affect participants by ignoring this opportunity to teach what is and is not acceptable within cultural models of driving (P1, P7), detailed above (see *Between-case analysis: Punishment*).

However, just as participants discussed the effectiveness of parents mainly in terms of internalizing their practices, rather than cultural model descriptors, the same is true for parents as an ineffective source. Some participants resist adopting parents’ driving rules (P1, P5); for example, by speeding (P5) or using cruise control (P1). One potential reason for this, as discussed above (see *Between-case analysis: Parenting style*), is inconsistent parenting styles sending mixed messages over what is acceptable within cultural models of driving (P5).

Key elements of participants’ narratives that converged (i.e., agreed upon) and diverged (i.e., disagreed upon) are illustrated in the following table:

Convergences	Divergences
<ul style="list-style-type: none"> • Generally promote safe driving practices within cultural models of driving • Safe behaviours, rather than unsafe behaviours, of parents and siblings tend to be internalized 	<ul style="list-style-type: none"> • Some participants’ siblings portray unsafe driving practices (P1, P3, P4), while others’ exhibit safe ones (P5, P6)

Between-case analysis: Friends and peers. Participants indicated in interviews that friends and peers are highly (P1, P3, P7) and moderately (P2, P4, P6) effective sources for transmitting cultural models of driving.

Friends and peers as an effective source of cultural model transmission. All but one participant reported friends driving recklessly (P1, P2, P3, P4, P5, P6). For these participants, cultural models of rural driving were construed as tolerant of reckless driving behaviours, such as drunk driving (P1, P4), speeding (P3, P6), and unspecified reckless actions (P1, P2, P5, P6). On the other hand, P2 sees friends are seen sources to help improve her driving; for example, through driving instruction or spotting road hazards (“my one friend ... she's basically a driving instructor for me ... she's always bringing me confidence ... it is helpful”; P2).

Participants unanimously learn how not to drive by seeing and hearing of friends' reckless driving behaviours (P1, P2, P3, P4, P5, P6, P7) – “watching people mess up and make mistakes just kind of reinforces the idea that I should be driving responsibly” (P1). In this way, participants learn of the reckless behaviours prevalent in their local cultural models of driving, as well as the negative repercussions (e.g., incidents, fatalities, and near misses), detailed above (see *Between-case analysis: Observation and modeling*). While these demonstrations of poor driving often result from friends' volitional decisions, participants have also learned of the dangers within cultural models of driving through incident and near-miss stories wherein friends were not necessarily at fault (P3, P6). For instance, P3 reported, “I don't like driving at night because other people have had near misses or basically hit other wildlife”. Thus, participants have learned from their friends and peers that driving is perilous because of individuals' actions, both purposeful and unintended.

Along with the unsafe driving behaviours frequently committed by their friends, a couple of participants remarked on the peer pressure they and others face from friends to drive recklessly (P1, P7). As P1 succinctly put it, “[friends] do pressure others to [drive drunk]”. Furthering cultural models of unsafe driving, some participants' friends ignore the

recommendations of participants to drive more safely (P1, P4), or will only drive safer temporarily (P1). This disregard for participants' pleas results in frustration: "it's kind of discouraging to try and discourage [peers from drinking and driving] and ... they always get mad" (P4) – perhaps building within participants' private cultural models of driving the notion that reckless habits are not easily changed.

Despite participants acknowledging the dangers of friends' and peers' unsafe driving behaviours, a respectable amount internalizes such behaviours (P1, P5, P6), while others admit to internalizing behaviours without specifying whether they are safe or unsafe (P7). For P6, "when I'm driving with friends and seeing how my friends drive and they're a lot more reckless [than parents]. I'm not overly reckless but I'm influenced by my friends". This excerpt is typical of P1 and P5 as well, where participants will adopt their friends' unsafe behaviours, but only to a point – exhibiting more respect for traffic safety than their friends.

Friends and peers as an ineffective source of cultural model transmission. There is little to suggest that friends and peers are ineffective transmitters of cultural models. In fact, P5 offered the only notable example: "driving with my friends, they'll usually just be on their phone or talk to me. I don't think they pay attention". Here, it seems that friends and peers do not convey cultural models of driving when they are inattentive to participants' driving, already discussed above (see *Between-case analysis: Monitoring*). Thus, while disengaged from the situation, friends and peers do not provide participants with driving-related information.

It is apparent that a few participants do not internalize their friends' unsafe driving behaviours (P1, P3, P7), including some who also suggested internalizing behaviours (as mentioned above). That is, two participants (P1, P7) reported sometimes internalizing behaviours and other times not ("they will tell me to go faster ... sometimes I will, sometimes I won't,

depending on how the roads are”; P1). As such, there are mechanisms that dictate whether driving behaviours are internalized, such as participants’ individual mental models of driving (see *Between-case analysis: Individual mental model of driving*).

Key elements of participants’ narratives that converged (i.e., agreed upon) and diverged (i.e., disagreed upon) are illustrated in the following table:

Convergences	Divergences
<ul style="list-style-type: none"> • Emphasize the reckless and unsafe driving behaviours inherent in local cultural models of driving • Teach others of cultural models of driving through exemplifying reckless behaviours and their negative repercussions 	<ul style="list-style-type: none"> • Help to improve personal safety while driving (P2) • Exhibited behaviours are sometimes internalized (P1, P5, P6, P7), but other times not (P1, P3, P7)

Between-case analysis: Driving authority. Driving authority was recounted by participants as a highly influential source of cultural model transmission by one participant (P3), and moderately influential by others (P1, P2, P4, P5, P6, P7).

Driving authority as an effective source of cultural model transmission. Several driving authorities are recognized by participants, including driver’s education instructors, licensers and insurance brokers, anti-drunk driving campaigns, and police officers and equipment (e.g., speed cameras). Beginning with driver’s education instructors, this driving authority is perceived as a key impact on personal driving practices (“in driver’s education, they discuss drunk driving ... that probably affected the way that I think about it now for sure”; P4). Through driving instructors, participants learn of the hazards associated with particular cultural models of driving (P2) and behaviours necessary to mitigate such hazards, such as defensive driving (P1), shoulder checking (P6), and sober driving (P4).

Driving licensers and insurance brokers, such as Saskatchewan Government Insurance, also help denote acceptable and unacceptable driving behaviours within cultural models of

driving (P2, P3, P7). For example, participants are deterred from reckless driving by losing points on their licenses (P2) and having to file insurance claims following incidents (P3). Furthermore, if participants fail a driver's license exam, they are conditioned to avoid repeating the behaviours that led to their exam failure ("failed my drivers test twice for not [turning properly] ... Well I failed twice for doing it, so I better learn my lesson"; P7). Anti-drunk driving agencies, another potential driving authority, were mentioned by one participant but not elaborated on in terms of effectively conveying cultural models of driving (P1).

Of all the driving authorities, participants focused mostly on police officers and equipment during interviews. Participants drive more cautiously, and see others do the same, in the presence of police officers and equipment (P1, P2, P3, P6, P7). Police officers and speed cameras are essentially symbols representing intolerance of reckless driving. Thus, the more a cultural model of driving is associated with visible traffic regulation, the less accepting it is of reckless driving. On the other hand, lack of interaction with traffic regulation (e.g., never having been pulled over or ticketed), reported by several participants (P1, P3, P4, P6, P7), may signify a cultural model more open to reckless driving. This discussion of police presence is similar to the effects of traffic regulation visibility detailed above (see *Between-case analysis: Punishment*), as is the associated suggestion from P1 that it is enforcement, not self-determination, that pushes drivers to behave safely. As such, elaboration on these findings will not be reiterated here.

Driving authority as an ineffective source of cultural model transmission. Again, the above discussion on punishment overlaps with driving authority when considering some participants' appeal to ignorance (P1, P3, P4, P6, P7) – as in, continuing their habitual driving practices because these practices have not been rendered inappropriate (e.g., by being reprimanded by driving authority). A more in-depth discussion on this finding can be found

above (see *Between-case analysis: Punishment*). The last item to overlap with the between-case analysis of punishment is that of driving authorities being ineffective sources of cultural model transmission when participants do accept an authority’s punishment (“made me angry because I felt like it was an unfair ticket”; P2); for additional explanation, see above.

It is worth noting that one participant (P1) – the only one to bring up anti-drunk driving campaigns (they were not included in interview questions) – sees anti-drunk driving campaigns as unable to instigate behavioural change (“they don't override the whole [drunk driving] ritual that people seem to have adopted”). Therefore, driving authority may be insufficient to overcome deeply entrenched cultural practices such as drunk driving, though concrete conclusions cannot be drawn based on this single narrative.

Key elements of participants’ narratives that converged (i.e., agreed upon) and diverged (i.e., disagreed upon) are illustrated in the following table:

Convergences	Divergences
<ul style="list-style-type: none"> • Driving instructors have a substantial impact on personal driving practices • Driving licensers and insurance brokers help establish acceptable and unacceptable driving behaviours within cultural models of driving • Police officers and equipment are the most commonly encountered driving authority • Participants report a lack of interaction with traffic regulation (e.g., pulled over or ticketed) • Appeal to ignorance as justification for current driving practices • Officers, as driving authority, are not a very effective source of cultural model transmission for those who have never been pulled over or ticketed 	<ul style="list-style-type: none"> • N/A

Between-case analysis: Other drivers. Based on interview data, most participants (P2, P3, P4, P5, P6, P7) consider other drivers – as in, drivers *other* than family, friends and peers, and driving authority – to be moderately influential sources of cultural model transmission, while one participant views this source as having low influence (P1).

Other drivers as an effective source of cultural model transmission. Participants predominantly encounter other drivers exemplifying unsafe driving behaviours. Other drivers were regarded as unsafe drivers in at least one instance during all but one participant interview (P1, P2, P3, P4, P5, P7). Participants spoke of other drivers cutting them off (P4), hitting pedestrians (P3), driving drunk (P7), expressing impatience (e.g., honking at slower drivers and running lights; P2), and generally having “disregard or lack of knowledge for driving etiquette” (P1). Thus, other drivers tend to convey cultural models of unsafe driving to participants. Half of participants providing examples of unsafe drivers were set in urban areas (P2, P3, P4) and half in rural areas (P1, P5, P7), suggesting reckless behaviours of other drivers are common components of both cultural models. In contrast, one participant experiences safe behaviours of other drivers, at least in urban settings (“the rules are clear, and people tend to follow them”; P1).

Whether committing safe or unsafe driving behaviours, other drivers demand participants’ attention (P3, P4, P6) – mainly an issue in the cultural model of urban driving (P3, P4, P6). For instance, P3 said, “in the city, you have to watch for ... people coming up behind you and people coming up in other lanes”. Naturally, P3’s attention must focus on other drivers’ actions in addition to her own. This division of attention adds an element of danger to driving and can instil nervousness or fear in participants (“always worried about how other people drive”; P3).

Encountering other drivers on the road tends to influence participants' driving practices in some respect (P2, P3, P4, P5), though specific effects vary. For example, some participants are persuaded to drive more cautiously (P3, P5), one avoids angry drivers (P4), and some effects were not stated in interviews (P2). Additionally, one participant reacts to other drivers' behaviours by following suit – P5 often speeds when surrounded by speeding drivers.

Other drivers as an ineffective source of cultural model transmission. Though P5 sometimes adopts the behaviours of other drivers, in other situations she does not (“a lot of people hate it when other people drive 100 ... but I was going 100 because I didn't want to mess with [icy road conditions]”; P5), suggesting a degree of ineffectiveness in this source of cultural model transmission.

Lastly, the absence of other drivers on the road foregoes a potential source of cultural model transmission. To exemplify, P6 states “even in my exam, the parallel parking, it really wasn't anything like it is Saskatoon” and “in the city I feel like you learn how to do everything”. In learning to drive in a rural area then, P6 missed out on a source of cultural model transmission by having few other drivers as reference points.

Key elements of participants' narratives that converged (i.e., agreed upon) and diverged (i.e., disagreed upon) are illustrated in the following table:

Convergences	Divergences
<ul style="list-style-type: none"> • Predominantly perform unsafe driving behaviours in both urban and rural areas • Other drivers demand participants' attention, particularly in urban areas • Tend to influence participants' driving practices in some respect 	<ul style="list-style-type: none"> • Perform safe driving behaviours, at least in urban areas (P1) • Influence on participants is positive for some (P3, P4, P5); negative for others (P5) • No consensus on whether participants internalize the behaviours of other drivers or not (P5)

Tying It All Together: Between-case Structural Analyses of the Cultural and Individual Mental Models of Driving

Cultural model of rural driving. Interrelationships among constructs related to the cultural model of rural driving are illustrated in the causal network below (Figure 3-1). As shown in Figure 3-1, the cultural model of rural driving operates through five modes and four sources as reported by participants. Furthermore, the largest impact on participants' mental models of driving appears to come from observation and modeling, punishment, friends and peers, and driving authority. Specifically, participants observing others' driving behaviours greatly transmits to participants the cultural model of rural driving, so long as there are family, friends and peers, or other drivers in view (relationships represented by dotted lines).

Regarding punishment, participants tended to report the cultural model of rural driving as disregarding punishment (represented in Figure 3-1 by the “-” in the CM Rural → Punishment relationship), which strongly influences participants' mental models of driving, conveying that driving-related punishment is uncommon within this cultural model. Interrelationships show that punishment has a clear mutually causal relationship with driving authority, where involvement of driving authority is a causal factor of driving-related punishment affecting participants' mental models and driving-related punishment a causal factor in the impact of driving authority. One participant (P5) reported a relationship between punishment and family as mutually reinforcing each other in a similar fashion.

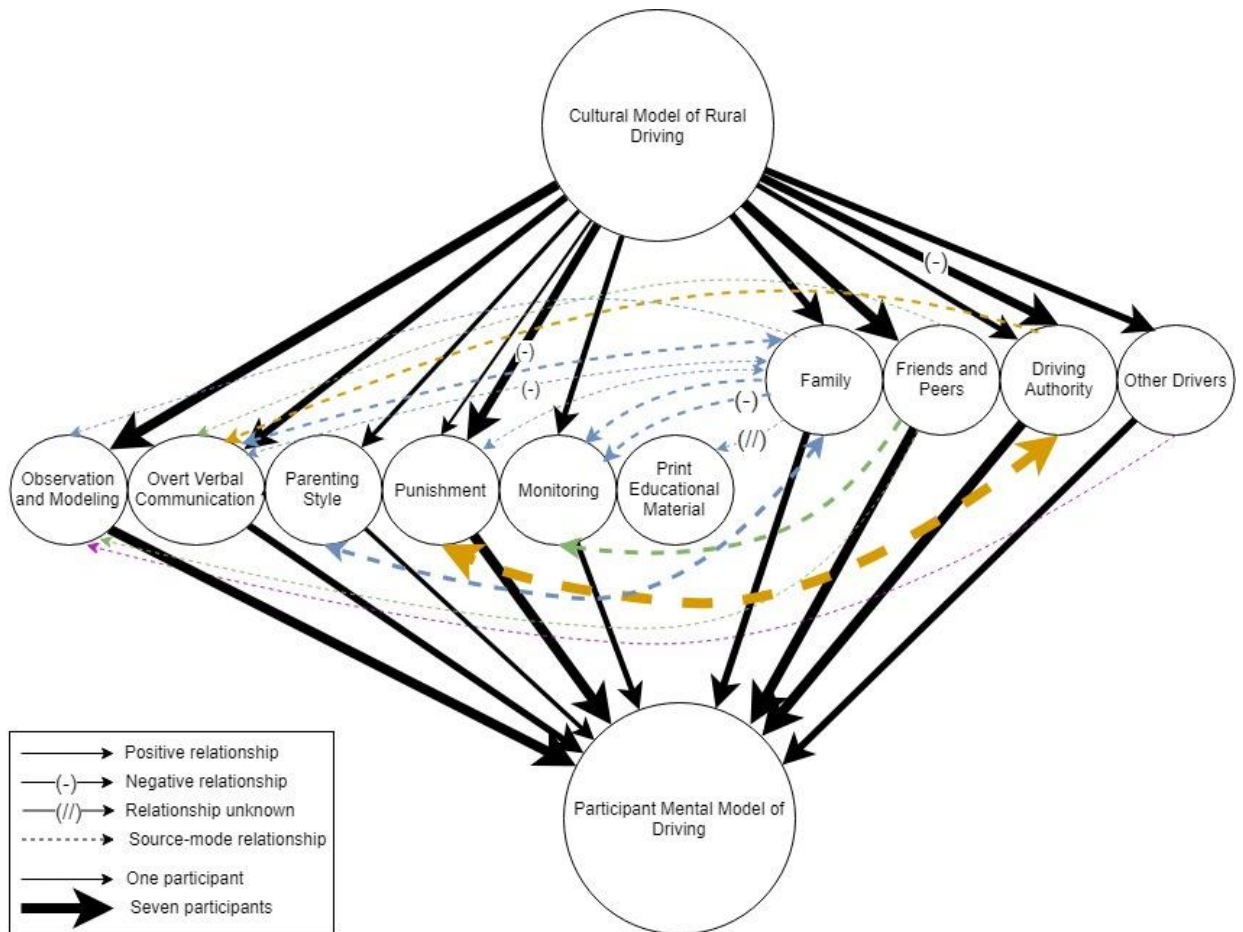


Figure 3-1. Causal network for the cultural model of rural driving. Arrowed lines show causal relationships between constructs, ultimately demonstrating how the cultural model of rural driving impacts participants’ mental models of driving through various modes and sources. Lines convey different meanings depending on whether they are solid, dashed, or contain a symbol. As well, the thicker a line is, the greater the number of participants who reported the relationship.

Overt verbal communication has a fairly strong role in relaying to participants the cultural model of rural driving. One participant perceives the mode to be enhanced when friends and peers are the source of communication and two participants suggest enhancement when driving authorities are the source. Findings are mixed on the impact of family on overt verbal communication, with two participants suggesting family causes greater influence of overt verbal communication on participants’ mental models, and one reporting it causes weaker influence. This conflict may stem from participants’ perceptions of the value of their family members’

input, with P4 and P6 placing high value on the input and P7 placing low value. Parenting style was reported as having a slightly lesser influence than overt verbal communication on mental model development. However, three participants expressed that this mode and family – specifically, parents – are mutually causative, with the influence of parenting style dependant on the presence of parents and the influence of parents dependant on parenting style.

Monitoring provides little transmission of the cultural model of rural driving. Findings are mixed on the impact of family on monitoring, with some participants suggesting family causes greater influence of monitoring on participants’ mental models, and others reporting it causes weaker influence. This conflict may be due to the similar one outlined above between family and overt verbal communication. Conversely, there is more consensus surrounding friends and peers causing monitoring to more substantially alter participants’ mental models.

Lastly, there is no discernable effect of print educational material in transmitting the cultural model of rural driving. One participant (P4) commented on his father helping him learn from his driver’s manual, presenting a potentially positive causal relationship of family on this mode – but this information is insufficient to confirm such a relationship (represented in Figure 3-1 by the “//” in the Family → Print Educational Material relationship).

Individual mental model of driving. Constructs are interrelated through the individual mental model of driving mainly in the model’s ability to buffer against external factors influencing an individual’s driving practices (see Figure 3-2). For starters, participants tend to avoid adopting the unsafe driving practices exhibited by others, whether verbal requests to drive unsafely (overt verbal communication; P1, P4, P7) or demonstrated reckless driving behaviours (observation and modeling; P1, P2, P3, P5). A more divisive finding concerns monitoring, where

roughly half of participants (P1, P3, P4) avidly avoid the influence of monitoring, with their individual mental models of driving acting as a buffer.

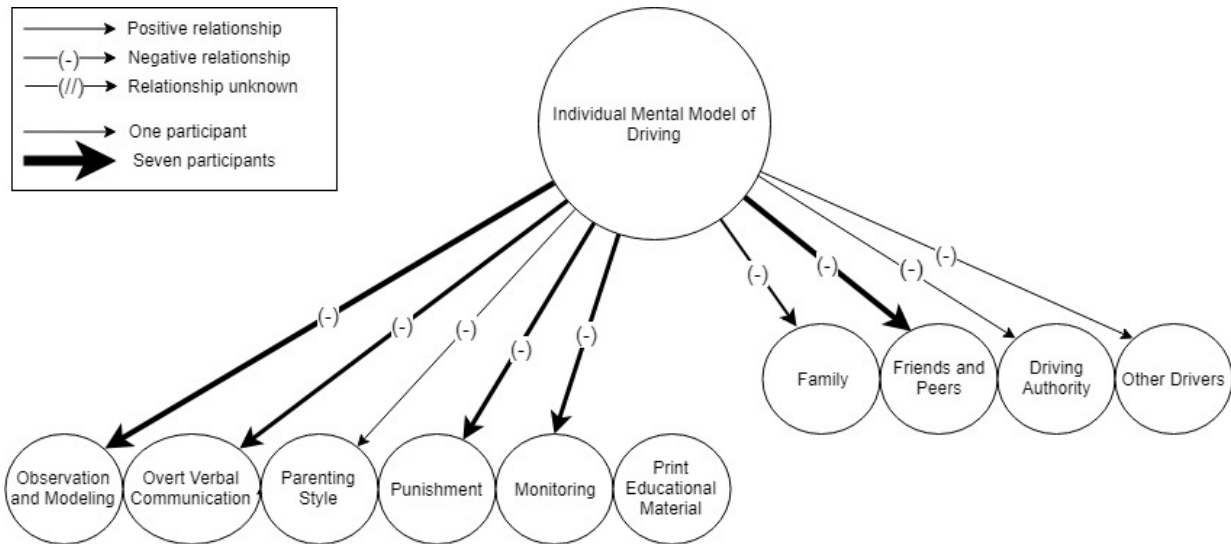


Figure 3-2. Causal network for the individual mental model of driving. Arrowed lines show causal relationships between constructs, ultimately demonstrating how the individual mental model of driving buffers against the influence of various modes and sources of cultural model transmission. Lines convey different meanings depending on whether they are solid, dashed, or contain a symbol. As well, the thicker a line is, the greater the number of participants who reported the relationship.

Similarly, a minority of participants are willing to commit minor traffic offenses – such as running a stop sign at 2:00 AM on a rural road (P1) or exceeding maximum seating capacity to prevent others from drunk driving (P7) – or break parents’ driving-related rules such as speeding or using cruise control (P1, P5; see Figure 3-2).

As seen in previous sections, it is also apparent that the individual mental model of driving help to mitigate the influence of sources of cultural model transmission – most of all, friends and peers.

Cultural model of urban driving. Interrelationships among constructs related to the cultural model of urban driving are illustrated in the causal network below (Figure 3-3). As shown in Figure 3-3, the cultural model of urban driving, like the model of rural driving,

operates through five modes and four sources as reported by participants. Furthermore, the largest impact on participants' mental models of driving come from observation and modeling, punishment, driving authority, and other drivers. Specifically, participants observing others' driving behaviours substantially conveys to them the cultural model of urban driving, provided that family, friends and peers, or other drivers are in view (relationships represented by dotted lines).

Punishment was reported by participants as strongly informing them on the cultural model of urban driving transmission. In contrast to the cultural model of rural driving, this model is respectful of driving-related punishment, though three participants reported it as dismissive of punishment (represented in Figure 3-3 by the "-" in the CM Rural → Punishment relationship). In this model, as with the cultural model of rural driving, interrelationships show that punishment has a mutually causal relationship with driving authority.

Overt verbal communication has a modest role in transmitting to participants the cultural model of urban driving. As with the cultural model of rural driving, one participant perceives overt verbal communication in urban settings to be enhanced when friends and peers are the source of communication and two participants suggest enhancement when driving authorities are the source. Parenting style was reported as having minimal influence on the cultural model of urban driving, perhaps because participants, when learning of this cultural model, have typically moved away from their parents' rural home. One participant noted that family – specifically, parents – and parenting style are mutually causative within the cultural model of urban driving.

Lastly, findings of how monitoring and print educational material interact with the cultural model of urban driving are both similar to their role with the model of rural driving. Monitoring provides participants with little information on the cultural model of urban driving.

According to one participant, friends and peers cause monitoring to have a greater impact on participants' mental models. For print educational material, there is no clear effect with the cultural model of urban driving, though there is the potentially positive causal relationship of family on this mode – unable to be confirmed due to a lack of information (represented in Figure 3-3 by the “//” in the Family → Print Educational Material relationship).

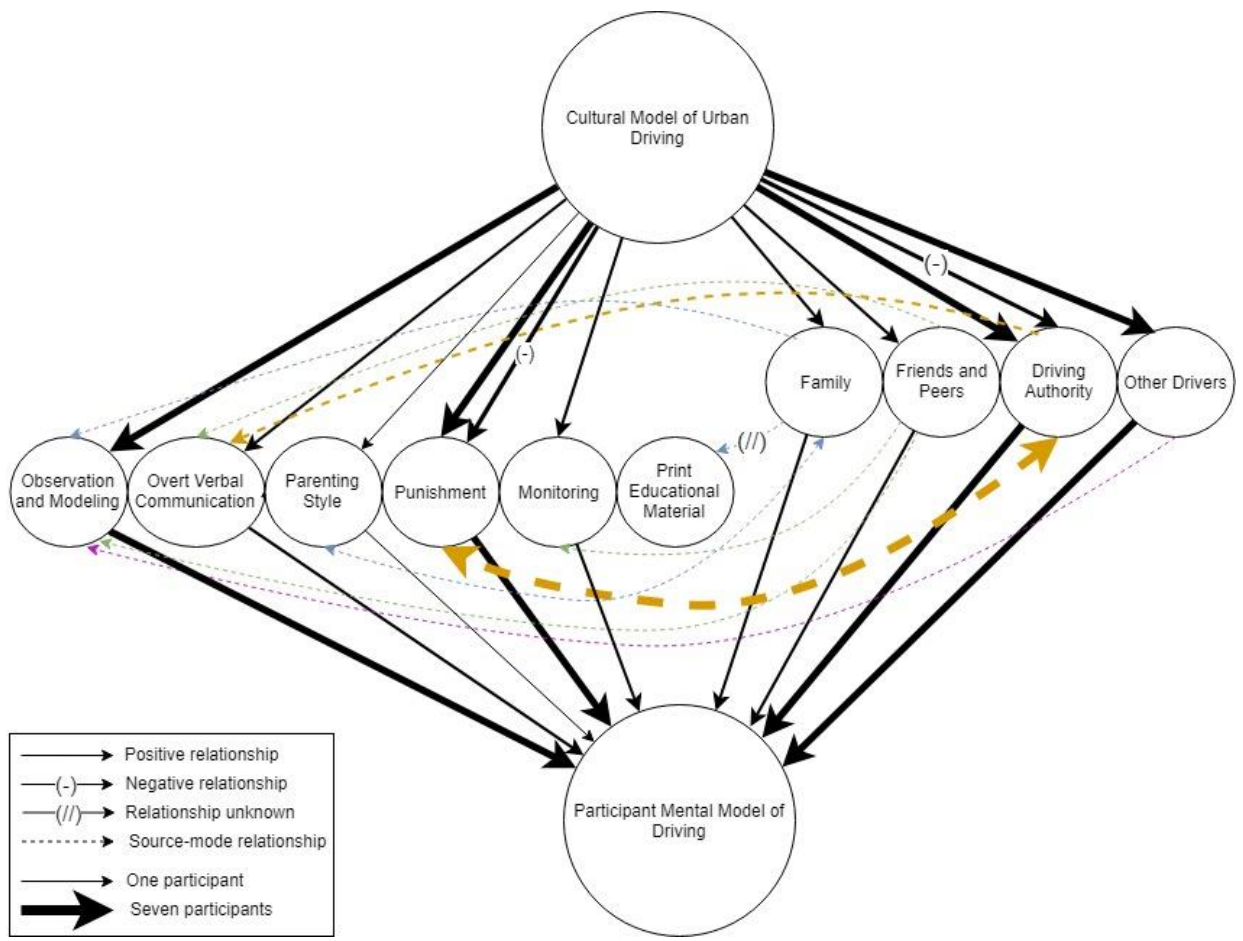


Figure 3-3. Causal network for the cultural model of urban driving. Arrowed lines show causal relationships between constructs, ultimately demonstrating how the cultural model of urban driving impacts participants' mental models of driving through various modes and sources. Lines convey different meanings depending on whether they are solid, dashed, or contain a symbol. As well, the thicker a line is, the greater the number of participants who reported the relationship.

CHAPTER 4

DISCUSSION

This research intended to uncover young rural-raised Saskatchewanian drivers' understanding of the cultural and individual mental models of driving (RQ1). Also sought was a comprehension of which modes of communication (RQ2) and sources of information about driving (RQ3) are involved in developing this group's current mental models of driving.

To address these exploratory research objectives, a survey questionnaire was first administered to gather a sample of young rural-raised drivers and estimate their level of driving safety. Then, interviews were conducted with seven rural-raised university students who had completed the survey questionnaire, exploring their experiences with six cultural model transmission modes (observation and modeling, overt verbal communication, parenting style, punishment, monitoring, and print educational material) and four sources (family, friends and peers, driving authority, and other drivers).

Participants' questionnaire and interview responses were presumably based on their knowledge of driving learned socioculturally (cultural model of driving) and experientially (individual mental model of driving) in an urban centre after being raised in a rural community. Thus, the present research has aimed to discern the modes and sources through which participants have built their current mental model of driving, as well as their conceptualizations of the cultural and individual mental models of driving.

RQ1: Cultural and Individual Mental Models of Driving

Three cultural and mental model constructs were elucidated in the present research: the cultural model of rural driving, individual mental model of driving, and cultural model of urban driving.

Cultural Model of Rural Driving

The cultural model of rural driving was found in the present research to be predominantly accepting of reckless driving behaviours, such as speeding, stunting, ignoring signage and, particularly, drunk driving – in agreement with past research on rural driving in Canada (Desapriya et al., 2011; Rothe & Elgert, 2005; Transport Canada, 2016). Perhaps the most consistent theme among interviewees was that drunk driving is entrenched in this cultural model. Participants see rural drivers take drunk driving for granted, consistent with previous research that found drunk driving to be especially prevalent in Canada’s rural areas, compared to urban areas (Desapriya et al., 2011; Perreault, 2016). While the prevalence of drunk driving in rural communities is a complex issue resulting from multiple factors, one factor focused on in interviews was police presence and absence. The cultural model of rural driving is typified by low police presence, suggesting that traffic laws – including impaired driving – are not commonly enforced. Thus, the culture of driving in rural Saskatchewan must be shifted to promote less tolerance for drunk driving, which previous literature suggests can be done by increasing police presence (e.g., roadside check-stops; Erke, Goldenbeld, & Vaa, 2009; Tay, 2005).

In contrast to the mainstream view of the cultural model of rural driving as unsafe, two participants consider it to be fairly safe, mostly due to their parents setting positive driving examples. Elements of safety in rural driving are also found in the lack of distractions on the road (aside from wildlife) and youth learning to drive from a young age. This latter finding may be seen as unsafe by non-rural residents but is valued by interview participants for allowing them to support family farm operations, apply for particular job opportunities, provide help during emergencies, and reducing anxiety during driver’s education. Similar findings were found in the

focus groups conducted by Knight et al. (2012) with rural youth who had begun driving prior to legal age (described above; see *Demographic Factors*).

Individual Mental Model of Rural Driving

Turning to the individual mental model of driving, it is apparent by examining research results that participants' individual models are consistent with safety questionnaire scores, suggesting that this group's self-reported driving behaviours are primarily of a safe nature. For many participants, individual mental models safeguard against automatic internalization of others' unsafe driving behaviours. For example, being ticketed or witnessing or experiencing a driving incident encourages participants to avoid such instances in the future, building an aversion to others' reckless driving behaviours. Essentially, personal driving experience helps participants to selectively choose which driving practices they adopt from others. This effect was also documented by Lahatte and Le Pape (2008): a comparison between the results of inexperienced drivers and young drivers with four or more years' driving experience revealed that parental influence gradually decreased over time. Furthermore, the present research shows that supervised driving practice with attentive and skilled parents is necessary for building an individual mental model of driving that is conducive to safe driving; without this experience, drivers may lack the confidence to drive comfortably or avoid driving altogether.

Exploring participants' individual models of driving also sheds light on their driving styles. Most participants displayed a cautious driving style, associated with lower involvement in incidents than other driving styles (Taubman-Ben-Ari et al., 2004). However, outliers were also present, with one participant holding an angry driving style – linked to higher incident involvement (Taubman-Ben-Ari et al., 2004) – and another with an anxious driving style, not tied to a specific level of driving safety. Notably, these rural-raised young drivers expressing safe

driving practices – via questionnaire scores, descriptions of individual mental models of driving, and driving styles – clash with the generally unsafe cultural model of rural driving reported for rural Saskatchewan in the present research and other studies (Desapriya et al., 2011; Nguyen, 2017; Transport Canada, 2016). This inconsistency is likely in part due to participants moving to and/or principally driving in an urban area, learning and internalizing components of the cultural model of urban driving.

Cultural Model of Urban Driving

The cultural model of urban driving is generally seen as unsafe, but less so than rural driving – consistent with previous research showing less driving-related fatalities in urban than rural areas (Transport Canada, 2016). High visibility of traffic regulation (e.g., police, traffic lights, and signage) is largely responsible for safety felt while city driving. However, visible traffic regulation is not wholly effective; participants commonly see other drivers speeding. Driver impatience and aggression is also a salient feature of city drivers, likely resulting from the multitude of environmental factors on city roads, such as traffic, pedestrians, and traffic signs. These distractors, combined with driver aggression, can create a hazardous driving environment.

Less information was provided by interviewees on urban driving than rural driving. This result is perhaps due to participants' driving experience being primarily in rural areas. In other words, participants may have held underdeveloped cultural models of urban driving at the time of interviews. Naturally, being raised in a rural community presents limited chances for individuals to learn about city driving.

RQ2: Modes of Transmitting Cultural Models of Driving

Knowing *what* young rural-raised drivers learn from community members in rural and urban Saskatchewan, discussion turns to *how* this knowledge is learned – as in, the modes of cultural model transmission.

Highly Effective Modes of Cultural Model Transmission

Among research results, punishment and observation/modeling stand out as the most influential modes of cultural model transmission. Within the present research data, punishment is considered a highly influential – and in several cases the most influential – mode of cultural model transmission. Punishment is most often received from police officers and equipment (e.g., speed cameras) for violating traffic laws. However, a variety of other punishments are also experienced, related to personal safety, privilege, finances, and social disapproval. This finding is important when considering that some drivers have never directly interacted with police (e.g., been pulled over or ticketed). For these drivers, punishment from police is only experienced vicariously by hearing of others' encounters – less effective than direct experiences. Therefore, to capitalize on the ability of punishment to encourage safer driving in rural areas, a wide range of punishments must be embraced in safe driving initiatives rather than relying solely on police (e.g., privilege, financial, and social disapproval). Punishing driving transgressions through diverse avenues also helps to avoid drivers' appeals to ignorance (x is true because x has not been proven false), found to be a common experience among interviewees, especially when driving in rural areas.

Punishment may be so effective because it operates through fear. Several participants exemplified their fear of punishment as deterring them from committing unsafe driving behaviours. Literature suggests that fear is indeed a key factor in the effectiveness of

punishment, though other factors are also important, such as punishment severity and certainty (Paternoster, 2010). Fear is commonly applied in a persuasion tactic known as *fear appeal* (i.e., deliberately inducing fear in an audience in order to influence their behaviour), found to increase precautionary behaviours in individuals (Panić, Cauberghe, & De Pelsmacker, 2011; Terpstra, Zaalberg, Boer, and Botzen, 2014). Panić et al. (2011) found that an online anti-speeding public service announcement, accompanied by a web link for further information on the dangers of speeding, was successful in increasing participants' intentions to reduce speeding behaviour. Such initiatives are a hopeful avenue to remediate reckless driving behaviours. Fear appeals are further optimized by incorporating elements of self-efficacy to protect against drivers feeling helpless from the fear of driving hazards (i.e., actions drivers can take to avoid fearful outcomes; Basil, Basil, Deshpande, & Lavack, 2013; de Bruin & Peters, 2013). Understanding the mechanism through which punishment affects rural-raised drivers – whether fear or otherwise – is important as this mode effectively encourages cautious driving, counter to the reckless and unsafe driving more characteristic of the cultural model of rural driving.

Like punishment, observation and modeling was found to be a robust conveyer of cultural models of driving, congruent with previous research on the effectiveness of this mode in teaching driving practices to youth (e.g., Prato et al., 2010; Schmidt, 2012; Taubman-Ben-Ari et al., 2005). Results also indicated a potential sex effect, where males perpetrate reckless driving behaviours and females do not (though there were exceptions to this generalization), in line with multi-national research showing males to enact more risky driving behaviours (Prato et al., 2010; Rhodes & Pivik, 2011; Westerman & Haigney, 2000). It seems then, that who participants observe driving may be critical in their understanding of cultural models of driving, with females conveying safer models. This finding also suggests that an approach to forming safer driving

practices in young rural drivers may include an emphasis on males, targeting interventions toward this demographic. However, future research is required to test whether this finding generalizes to the larger rural Saskatchewanian population.

Perhaps most notably for this mode, not only do observed behaviours teach participants of cultural models of driving, these behaviours are also often adopted by participants (i.e., “driver see; driver do”). This is not surprising given the impressionable nature of youth during this stage of life (Law & Hall, 2009; O’Rourke, 2006). Both safe and unsafe driving behaviours are often internalized via this mode, emphasizing the importance of positive driving examples and role models for impressionable youth.

Other Effective Modes of Cultural Model Transmission

Results indicate that the next most influential modes of cultural model transmission among participants are parenting style and overt verbal communication. Most participants reported their parents exhibiting an authoritative parenting style, further supporting participants’ self-reported safe driving nature as this parenting style is associated with relatively low traffic incident involvement (Ginsburg et al., 2009). Reflective of the constructs of control and warmth on which parenting styles are based on (Baumrind, 1991), findings in the present research suggest that parenting style operates through parents’ expressed support and trust. For example, parents trusting participants to drive before licensure or with minimal rules (e.g., curfew) indicates to participants that their current driving practices are appropriate for their surrounding cultural model. Similarly, rule-setting conveys aspects of cultural models of driving to participants by identifying driving actions inappropriate for the local cultural model. These findings highlight the importance for parents to reflect on their levels of support, trust, and rules related to driving in order to help build safe mental models of driving in children and youth.

Overt verbal communication is also widely used to communicate cultural models of driving, for which it is quite successful. However, this mode tends to be unsuccessful in creating behavioural change in participants. Thus, this mode is effective in describing to participants what behaviours are and are not appropriate, but not in participants necessarily adopting such behaviours. This finding is at odds with past research that shows youth with communicative parents to self-report as safe drivers (Taubman-Ben-Art & Katz-Ben-Ami, 2013; Taubman-Ben-Ari, 2014). Perhaps communication between youth and parents is associated with a greater likelihood of the youth driving safely, but it is insufficient in persuading unsafe drivers to alter their driving behaviours. Part of this mode's inability to exact behavioural change may be due to receiving mixed messages, as participants reported receiving a combination of safe and unsafe driving advice from others.

Findings also suggest that the effectiveness of overt verbal communication in transmitting cultural models and changing behaviour can be enhanced through personal stories. Congruently, previous research suggests that safety messages are more effective when framed as personal accounts (e.g., stories or anecdotes) than messages that are purely informative (Ricketts, Shanteau, McSpadden, & Fernandez-Medina, 2010) or statistically-framed (Hastall & Knobloch-Westerwick, 2013). For example, a purely informative message concerning driving safety (e.g., "using mobile devices while driving increases your risk of injury or death") could be more effective if framed as a story: "16-year-old John Smith, while driving, glances down to read a text message from his phone resting in his car console. The next thing he knows, he is waking up in a hospital, handcuffed to a gurney. Shortly, he will be informed that he collided with an oncoming vehicle, the occupants of which are in critical condition ...".

Less Effective Modes of Cultural Model Transmission

According to research findings, monitoring has a moderate to low impact on developing young rural drivers' mental models of driving. This lackluster influence may be owed to participants frequently ignoring others' monitoring. Adding to this effect may be the narrow range of behaviours that monitoring addresses, with participants reporting that it solely conveys acceptable driving speed within cultural models of driving. This conclusion is contradictory to other research that has found parental monitoring to be associated with safe driving practices (Prato et al., 2010; Taubman-Ben-Ari & Katz-Ben-Ami, 2013). However, this conflict of findings may be a product of differential operationalization. In the present research, monitoring was conceived as one's awareness of others – particularly vehicle passengers – monitoring his or her driving practices (e.g., by observation, evaluation, or supervision; see Appendix D). This somewhat narrow operationalization was chosen to avoid conflation with other constructs such as parenting style (which also involves evaluation and supervision). Other research holds a wider operationalization, including elements such as “when parents know what their children are doing and who their friends are” (Taubman-Ben-Ari & Katz-Ben-Ami, 2013, p. 1). Future research would be well-served in carefully considering its operationalization of monitoring.

Last of the modes explored by the present research, print educational material cannot be discussed at length given that few participants shared relevant information. Clearly, further research on this mode is needed to draw firm conclusions. However, results specify that this mode of cultural model transmission may be less impactful in conveying cultural models than experiential learning. Certainly, print education materials having a minimal impact on young rural-raised drivers' mental models of driving would be cause for concern considering their driver education heavily centers around it.

RQ3: Sources of Information About Cultural Models of Driving

To address RQ3, we turn now to sources of cultural model transmission. The sources appearing to make the largest impact on participants' mental models of driving are family and friends/peers, which aligns with previous traffic research (Chen et al., 2008; Knight et al., 2012; Prato et al., 2010). Interestingly, friends and peers are usually seen by participants performing unsafe driving behaviours, and parents enacting safe driving behaviours. However, reflecting on past literature, this finding may be an oversimplification. Scott-Parker et al. (2015) found in surveys and interviews with young drivers that whether parents and friends encourage safe versus unsafe driving depends on factors such as punishment, modeling, and respect. Specifically, participants reported unsafe driving practices if their parents and friends exhibited unsafe driving attitudes and behaviours or were unlikely to punish participants for driving unsafely. Safe driving practices were reported by participants if they did not want to lose the respect of their friends and family. Thus, encouraging safe driving practices in young rural-raised Saskatchewanians requires going beyond a parents-peers distinction, to how aspects like punishment and respect function in their relationships with these subjects.

The other two sources of cultural model transmission explored – driving authority and other drivers (drivers *other* than family, friends and peers, and driving authority) – have perhaps a lesser impact on developing young rural-raised drivers' mental models of driving than the previous two sources, though both of their roles are particularly noteworthy when considering the cultural model of urban driving. The predominantly unsafe driving behaviours that other drivers perform, combined with their demand on participants' attention, suggest this source of cultural model transmission is problematic for participants. Whether this finding generalizes to the Saskatchewan rural population at large is not yet known, but if this is the case, other drivers

should be primary targets in driver's education. For instance, driving instructors and parents could facilitate discussion with learner drivers on how to perceive and react to other drivers. As well, in rural communities, it is especially important to provide learner drivers with experience driving alongside high traffic volumes (e.g., in larger urban areas) – an opportunity that several participants in the present research stated they missed out on during driver's education.

Regarding driving authority, police officers have already been touched on above in discussing punishment (see *Highly Effective Modes of Cultural Model Transmission*). However, another driving authority, driving instructors, substantially impacts personal driving practices in teaching young drivers of traffic hazards and ways to avoid them (e.g., defensive driving, sober driving, and shoulder checking). Supporting this finding is previous research with Grade 11 and 12 students in Ontario, which found through multiple logistic regression of survey responses that driver's education taken early in the license process (i.e., Ontario G1 license) reduces the risk of traffic collision involvement for beginner drivers (Zhao et al., 2006). Similarly, a literature review of driver's training also found that pre-license driver's training (e.g., in schools or with private professional driving instructors) improves driving-related skills, though findings are mixed on whether collision rates are reduced (Beanland, Goode, Salmon, & Lenné, 2013). Unfortunately, these studies do not isolate the effects of driving instructors to accurately cross-check Study Two participants' views of driving instructors. Nonetheless, it is apparent that instructors are part of a system (i.e., early driver's training) known to positively impact driver safety.

Practical Applications

It is hoped that this research can eventually contribute meaningful applications to driving safety. As long as cultural models of unsafe driving are transmitted to youth the driver paradox will remain where drivers purposely misuse vehicles—their primary method of attaining fundamental resources such as food and money—in a manner that puts their own and others' lives at risk. What follows are three broad recommendations for practical use of the present research that may benefit traffic safety in rural Saskatchewan and similar areas. In addition, the methodology applied in this research project (e.g., sampling method, case-based approach, mixed-method design, etc.) should prove useful for future research in the topic area.

Design of Traffic Safety Initiatives

The present research has outlined a group of rural-raised drivers' conceptualizations of the cultural models of rural and urban driving. A provisional mental model of driving, based on previous literature, was also presented in the introduction of this paper. This information may be used to understand the culture of traffic safety within similar rural and urban areas and identify which parts are most in need of address. For example, results in the present research suggest disregard for traffic laws by some members of rural Saskatchewanian communities. Thus, to create a positive culture of driving safety in rural Saskatchewan, progress could be made by increasing the number and frequency of police officers present in rural areas (e.g., patrolling and setting up roadside check-stops). Of course, consideration must be given to associated factors with this strategy, such as the resources required. However, the present research provides a helpful “jumping off point” for ideas to enhance driving safety.

It is important for designers of traffic safety initiatives to purposefully and strategically plan which modes and sources of communication they will utilize. A range of modes and sources

should be utilized, centred around the most effective ones. That is, focusing an initiative on punishment and observation/modeling (highly impactful modes), as well as family and friends/peers (highly impactful sources), constitutes a promising foundation for altering driving culture, but it is also important to draw from the diverse range of other modes and sources to enhance the scope and effectiveness of the initiative.

Drunk Driving Prevention

To provide a more in-depth examination of applying the present research to the design of traffic safety initiatives, consider the issue of drunk driving in Saskatchewan. Alcohol was the top contributory factor to traffic collisions in Saskatchewan in 2015 (Saskatchewan Government Insurance, 2016), with 1,165 collisions being attributed to driver alcohol consumption, 51 of which were fatal. These statistics coincide with findings of the present research, with drunk driving seen as acceptable by participants in rural areas and, to a lesser degree, urban areas. Previous research has also indicated drunk driving is particularly problematic in Saskatchewan (e.g., Desapriya et al., 2011; Perreault, 2016).

Results of the present research also found low police presence to be common within the cultural model of rural driving, suggesting a low chance of legal punishment for drunk driving. One method to reduce drunk driving in rural Saskatchewan is increase the number or frequency of police officers patrolling rural areas (Erke, Goldenbeld, & Vaa, 2009; Tay, 2005). Punishment is one of the two most effective modes explored in the present research – the other being observation and modeling. Combining these two modes results in another common approach to reducing drunk driving – anti-drunk driving advertising initiatives, which contribute to lower drunk driving rates (Cismaru, Lavack, & Markewich, 2009; Tay, 2005).

However, one potential shortcoming with these common initiatives is that the audience is learning about other drivers with whom they hold no affiliation. The present research found other sources, such as family and friends, to more effectively convey cultural models of driving. Perhaps anti-drunk driving initiatives could be made more effective by incorporating the friends and family members of young rural drivers. One option may be to have students in driver's education courses to read or listen to vignettes that involve their loved ones being ticketed, arrested, or harmed as a result of drunk driving. A similar approach that could reach further audiences might be a television advertisement with someone describing losing his or her loved one to drunk driving, then asking viewers to imagine going through the experience with their own loved ones. Certainly, much consideration would have to be given to designing and piloting these role-playing type of initiatives (e.g., perhaps a strong appeal to fear could cause negatively impact viewers), but they are worth exploring.

Cultivate the Resilience of Young Drivers Toward Unsafe Driving Practices

We have seen from past and the present research that the influence of others on one's driving behaviour dissipates as the individual accumulates driving experience and forms an individual model of driving. For example, involvement in incidents, near-misses, or punishment develops a resilience against repeating these events. As well, driving experience helps to remove drivers' appeals to ignorance, where they continue an unsafe driving practice purely because it has never been proven to them as inappropriate. Capitalizing on this resilience in young rural-raised drivers provides a potential route to improving traffic safety, especially in rural areas. Thus, driving experience in both rural and urban settings should be widely provided – for beginner drivers, under the supervision of skilled, experienced drivers – lest individuals feel overly nervous or unprepared driving in an unfamiliar setting.

Limitations and Recommendations for Future Research

A potential limitation in this study is the reliance on memory recall. It is well-documented that humans often unsuccessfully or inaccurately recall memories (Sherman, Crawford, Hamilton, & Garcia- Marques, 2007). Therefore, in asking participants retroactive questions (e.g., “What has led you to drive vehicles the way that you currently do?”), there is a risk of receiving misinformation, particularly because some follow-up questions focused on when participants learned to drive in their rural hometowns – in some cases, several years ago. However, this is a limitation that had to be endured due to time constraints of the project, which prevented moving beyond the University of Saskatchewan’s Psychology participant pool for participant recruitment (e.g., recruiting participants from rural high schools). Future research may benefit from accessing youth who are currently learning to drive, such as high school students in a driver’s education course. This population would allow investigation of how youth learn of driving and driving safety during a time when most are learning to drive for the first time.

Time constraints also factored into a second limitation: the IRR of 48% for transcript coding, which is somewhat low, even for exploratory research. As mentioned above, the majority of disagreements between coders were based on cultural and individual mental models, as well as differences in coding the closely related concepts of *family* and *parenting style*. Optimum coding of interview transcripts requires resources, such as time and funding, to train research assistants. Additional time is needed for all coders to discuss and correct coding disagreements. Given limited resources of the present research, just one research assistant was involved in coding, trained by the primary researcher. Further resources would have allowed for more comprehensive training of a greater number of research assistants, as well as deliberation of

coding disagreements. It is recommended that researchers continuing work in this topic area budget resources that allow optimization of the interview coding procedure.

Another potential limitation is that, as seen above, all participants involved in the present research self-reported as generally safe drivers. Provided these self-reports are accurate, the viewpoints and experiences of this group, though certainly useful, may provide an incomplete account of the cultural models of driving. It cannot be certain whether unsafe drivers share similar perceptions of mental and cultural models of driving, or the modes and sources of cultural model transmission, as those who participated in the present research. For instance, it is possible that unsafe drivers characteristically have parents with uninvolved parenting styles and/or are affected more strongly than safe drivers by parenting style. Further research will benefit from using a similar purposeful sampling approach as the present research intended – involving both safe and unsafe drivers. The chance for this sampling method to be applied successfully, unlike in the current research, may be improved by using a more objective criterion for selecting participants such as driving records. This endeavour may be made possible through collaboration with local police departments or insurance brokers.

Related to the previous limitation, generalizability of the present research is also constrained. The sample of seven rural Saskatchewan-raised university students in the present research generalizes most immediately to the wider rural Saskatchewan population, with generalizability diminishing as more varied contexts are considered. Generalization of findings is undoubtedly important as they could guide future traffic safety initiatives (e.g., anti-drunk driving advertising campaigns). Thus, future studies may consider a large-scale survey and quantitative analysis of rural Saskatchewanian drivers, or perhaps Canadian drivers at large, to better determine generalizability of results. Flyvbjerg (2006) suggests that this type of research is

appropriate “in understanding the degree to which certain phenomena are present in a given group or how they vary across cases” (p. 241). This methodological approach may be relatively quick, but risks ignoring the mechanisms underlying findings. Alternatively, generalizability of results can be verified using a case-based approach, applied in the present research, with diverse samples (e.g., rural-raised youth outside of university). This tactic would add generalizability to findings *and* allow verification of the mechanisms and interrelationships between them (Chirkov & Anderson, in press), though at the expense of time required for qualitative analysis.

A final suggestion for future research is to further investigate the role of print educational material (e.g., training manuals and informational brochures) in the driving safety of young drivers. In the present research, print educational material arose inductively from interview transcripts as a mode of interest. Therefore, no interview questions were asked directly about this mode, resulting in relatively little data. Further research on print educational material could help discern its effectiveness (or lack of) in influencing youth driving safety, which especially important given that modern driver’s education courses greatly rely on this mode of learning.

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Appendix A: Survey

Rural-Raised Youth Views of Driving

Please help us understand your views on driving by answering these brief driving-related questions. Your responses could help in developing strategies to keep you, your family, and your friends safe on the road.

You may indicate your responses to survey items by checking one box next to each statement. Here is an example:

EXAMPLE #1

Please indicate, by checking one box, to what extent you agree or disagree with the following statement.

	strongly disagree	disagree	slightly disagree	slightly agree	agree	strongly agree	not applicable
1. I feel safe when I'm in a vehicle with someone else driving.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In this example, people were asked to indicate whether they agreed with the statement, "I feel safe when I'm in a vehicle with someone else driving". The checked box indicates that this particular person slightly disagreed with the statement. That is, they tend to feel slightly unsafe when in a vehicle with someone else driving.

Remember, this is not an exam and there are no "right" or "wrong" answers. Also, if a statement does not apply to you or you do not hold an opinion regarding the statement, you may answer "not applicable".

There are 5 sections, totalling 48 questions. It should take approximately 20 minutes to answer them. Please feel free to ask questions. In order to ensure this survey remains confidential, please do not write your name on it.

The following question is related to your current experience with driving.

1. During an average week, do you drive a vehicle?

Yes No

a. If you do regularly drive a vehicle, roughly how many hours per week do you spend driving? Your best estimate is okay. _____

The following are a list of statements related to how people drive. Please read each statement carefully and indicate, by checking one box next to the statement, to what extent you agree or disagree with the statement.

	strongly disagree	disagree	slightly disagree	slightly agree	agree	strongly agree	not applicable
1. I often honk my horn or flash my lights at the car in front of me as a way of expressing my frustration.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I usually enjoy the sensation of driving dangerously.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. When I am in a traffic jam and the lane next to mine starts to move, I try to move into that lane as soon as possible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I often swear at other drivers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. When a traffic light turns green and the car in front of me doesn't go, I simply wait until it moves.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I drive cautiously.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. In a traffic jam, I think about ways to get through the traffic faster.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. At an intersection where I have to give right-of-way to oncoming traffic, I wait patiently for cross-traffic to pass.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I am often distracted or preoccupied, and suddenly realize that the vehicle ahead has slowed down, and I have to slam on the brakes to avoid a collision.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I base my behavior on the motto "better safe than sorry".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. When someone does something on the road that annoys me, I flash them with my high beams.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I plan long journeys in advance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I am always ready to react to unexpected maneuvers by other drivers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I tend to drive cautiously.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I often use my horn to honk at others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I usually enjoy the excitement of dangerous driving.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following are a list of statements concerning potentially risky driving practices. Please read each statement carefully and indicate, by checking one box next to the statement, how risky or safe you find each driving practice.

	extremely safe	safe	somewhat safe	somewhat risky	risky	extremely risky	not applicable
1. Driving a vehicle while under the influence of alcohol.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Driving more than 10 km/hr over the speed limit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Driving more than 20 km/hr over the speed limit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Racing another vehicle.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Driving at a distance less than 2 seconds from the vehicle in front.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Overtaking a vehicle across double white lines.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Driving a vehicle while tired/fatigued.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Driving without a seatbelt fastened.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Driving while using a hand held mobile phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Driving while using a hands free mobile phone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following are a list of statements concerning attitudes toward driving. Please read each statement carefully and indicate, by checking one box next to the statement, your agreement or disagreement with each statement.

	fully agree	agree	slightly agree	slightly disagree	disagree	fully disagree	not applicable
1. Many traffic rules may be ignored to ensure traffic flow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. It makes sense to exceed speed limits to get ahead of slow drivers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Traffic rules must be respected regardless of road and weather conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Speed limits are exceeded because they are too restrictive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. It is acceptable to drive when traffic lights change from yellow to red.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Taking chances and breaking a few rules does not necessarily make bad drivers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. It is acceptable to take chances when no other people are involved.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Traffic rules are often too complicated to be carried out in practice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. If you are a good driver it is acceptable to drive a little faster.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. When road conditions are good and nobody is around, driving at 160 km/hr is okay.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Punishments for speeding should be harsher.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. It's okay to ride with someone who speeds if that's the only way to get home at night.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. It's okay to ride with someone who speeds if others do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I don't want to risk my life and health by riding with an irresponsible driver.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I would never drive after drinking alcohol.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I would never ride with someone I knew has been drinking alcohol.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following final questions are for you to say a little bit about yourself.

1. How old are you? _____

2. What is your sex? Male Female Prefer not to answer

3. For the purposes of this study, rural areas are defined as any area other than the Government of Saskatchewan's listed 16 cities: Estevan, Flin Flon, Humboldt, Lloydminster, Martensville, Meadow Lake, Melfort, Melville, Moose Jaw, North Battleford, Prince Albert, Regina, Saskatoon, Swift Current, Weyburn, or Yorkton.
What area were you mainly raised in?
Saskatoon Other urban centre (e.g., Martensville, Estevan)
Rural community (e.g., Warman, Kindersley, farm) Other

4. Where area do you currently live in?
Saskatoon Other urban centre (e.g., Martensville, Estevan)
Rural community (e.g., Warman, Kindersley, farm) Other

5. Is driving part of your job (e.g., delivery driver, taxi driver, etc.)? _____

A related study will be conducted at a later date. Participants will be asked about their current driving practices. It will take 30-60 minutes and participants will be given a \$10 Tim Horton's gift card as a sign of appreciation for their time. If you are interested in participating or learning more about this future study, please enter the last four digits of your primary phone number in the box below. For example, a student whose main phone line has the number, (306) 555-3456 would enter 3456 in the box.

These 4 numbers will be used to pair your responses from this study and the following study after both have been completed, ensuring respondent anonymity until then.

Last 4 digits of your phone number: _____

That's it, you've completed the survey. Thank you for your help!

Appendix B: Original Questionnaires

The following are the original questionnaires that were adapted for use in Study One (see Appendix C).

Driving Style Questionnaire

Multidimensional Driving Style Inventory (MDSI): Taubman - Ben-Ari, O., Mikulincer, M., & Gillath, O. (2004). The Multidimensional Driving Style Inventory – Scale Construct and Validation. *Accident Analysis and Prevention*, 36, 323-332.

1- not at all, 2 - very little, 3 - little, 4 - moderate, 5 - much, 6- very much							
1.	I often do relaxing activities while driving	1	2	3	4	5	6
2.	I often purposely tailgate other drivers	1	2	3	4	5	6
3.	I often blow my horn or 'flash' the car in front as a way of expressing my frustration.	1	2	3	4	5	6
4.	I feel I have control over driving	1	2	3	4	5	6
5.	I often drive through traffic lights that have just turned red.	1	2	3	4	5	6
6.	I usually enjoy the sensation of driving on the limit (dangerously)	1	2	3	4	5	6
7.	On a clear freeway, I usually drive at or a little below the speed limit	1	2	3	4	5	6
8.	While driving I try to relax myself	1	2	3	4	5	6
9.	When I am in a traffic jam and the lane next to mine starts to move, I try to move into that lane as soon as possible	1	2	3	4	5	6
10.	Driving usually makes me feel frustrated	1	2	3	4	5	6
11.	I often daydream to pass the time while driving	1	2	3	4	5	6
12.	I often swear at other drivers	1	2	3	4	5	6
13.	When a traffic light turns green and the car in front of me doesn't get going, I just wait for a while until it moves	1	2	3	4	5	6
14.	I drive cautiously	1	2	3	4	5	6
15.	Sometimes lost in thought or distracted, I fail to notice someone waiting at a zebra crossing/pedestrian	1	2	3	4	5	6
16.	In a traffic jam, I think about ways to get through the traffic faster	1	2	3	4	5	6
17.	When a traffic light turns green and the car in front of me doesn't get going immediately, I try to urge the driver to move on	1	2	3	4	5	6
18.	At an intersection where I have to give right-of-way to oncoming traffic, I simply wait patiently for cross-traffic to pass	1	2	3	4	5	6
19.	When someone tries to skirt in front of me on the road I drive in an assertive way in order to prevent it	1	2	3	4	5	6

1- not at all, 2 - very little, 3 - little, 4 - moderate, 5 - much, 6- very much							
20.	I often fix my hair and/or makeup while driving	1	2	3	4	5	6
21.	I am often distracted or preoccupied, and suddenly realize that the vehicle ahead has slowed down, and I have to slam on the brakes to avoid a collision	1	2	3	4	5	6
22.	I like to take risks while driving	1	2	3	4	5	6
23.	I base my behavior on the motto "better safe than sorry"	1	2	3	4	5	6
24.	I like the thrill of flirting with death and disaster	1	2	3	4	5	6
25.	It worries me when driving in bad weather	1	2	3	4	5	6
26.	I often meditate while driving	1	2	3	4	5	6
27.	Lost in thoughts I often forget that my lights are on full beam until flashed by another motorist	1	2	3	4	5	6
28.	When someone does something on the road that annoys me, I flash them with the high beams	1	2	3	4	5	6
29.	I get a thrill out of breaking the law	1	2	3	4	5	6
30.	I often misjudge the speed of an oncoming vehicle when passing	1	2	3	4	5	6
31.	I feel nervous while driving	1	2	3	4	5	6
32.	I get impatient during rush hour	1	2	3	4	5	6
33.	I feel distressed while driving	1	2	3	4	5	6
34.	I often intend to switch on the windscreen wipers, but switch on the lights instead, or vice versa	1	2	3	4	5	6
35.	I often attempt to drive away from traffic lights in third gear (or on the neutral mode in automatic car)	1	2	3	4	5	6
36.	I often plan my route badly, so that I hit traffic that I could have avoided	1	2	3	4	5	6
37.	I often use muscle relaxation techniques while driving	1	2	3	4	5	6
38.	I plan long journeys in advance	1	2	3	4	5	6
39.	I often nearly (or actually) hit something due to Misjudging my gap in a parking lot	1	2	3	4	5	6
40.	I feel comfortable while driving	1	2	3	4	5	6
41.	I am always ready to react to unexpected maneuvers by other drivers	1	2	3	4	5	6
42.	I tend to drive cautiously	1	2	3	4	5	6
43.	I often honk my horn at others	1	2	3	4	5	6
44.	I usually enjoy the excitement of dangerous driving	1	2	3	4	5	6

Driving Risk Perception Questionnaire

10-item driving risk perception scale: Harbeck, E. L., & Glendon, A. I. (2013). How reinforcement sensitivity and perceived risk influence young drivers' reported engagement in risky driving behaviors. *Accident Analysis & Prevention*, 54, 73-80.

1 - not at all risky, 5 – extremely risky, NA - not applicable							
1.	Driving a vehicle while under the influence of alcohol?	1	2	3	4	5	NA
2.	Driving more than 10 km/hr over the speed limit?	1	2	3	4	5	NA
3.	Driving more than 20 km/hr over the speed limit?	1	2	3	4	5	NA
4.	Racing another vehicle?	1	2	3	4	5	NA
5.	Driving at a distance less than 2 seconds from the vehicle in front	1	2	3	4	5	NA
6.	Overtaking a vehicle across double white lines?	1	2	3	4	5	NA
7.	Driving a vehicle while tired/fatigued?	1	2	3	4	5	NA
8.	Driving without a seatbelt on?	1	2	3	4	5	NA
9.	Driving while using a hand held mobile phone?	1	2	3	4	5	NA
10.	Driving while using a hands free mobile phone?	1	2	3	4	5	NA

Attitudes Toward Driving Questionnaire

Attitudes Towards Driving Scale: Iversen, H. (2004). Risk-taking attitudes and risky driving behaviour. *Transportation Research Part F: Traffic Psychology and Behaviour*, 7(3), 135-150.

1 – strongly agree, 5 – strongly disagree, NA - not applicable							
1.	Many traffic rules must be ignored to ensure traffic flow.	1	2	3	4	5	NA
2.	It makes sense to exceed speed limits to get ahead of “Sunday drivers”.	1	2	3	4	5	NA
3.	Traffic rules must be respected regardless of road and weather conditions.	1	2	3	4	5	NA
4.	Speed limits are exceeded because they are too restrictive.	1	2	3	4	5	NA
5.	It is acceptable to take chances when no other people are involved.	1	2	3	4	5	NA
6.	Taking chances and breaking a few rules does not necessarily make bad drivers.	1	2	3	4	5	NA

1 – strongly agree, 5 – strongly disagree, NA - not applicable							
7.	It is acceptable to take chances when no other people are involved.	1	2	3	4	5	NA
8.	Traffic rules are often too complicated to be carried out in practice.	1	2	3	4	5	NA
9.	If you are a good driver it is acceptable to drive a little faster.	1	2	3	4	5	NA
10.	When road conditions are good and nobody is around driving at 160 km/hr is okay.	1	2	3	4	5	NA
11.	Punishments for speeding should be more restrictive.	1	2	3	4	5	NA
12.	It's okay to ride with someone who speeds if that's the only way to get home at night.	1	2	3	4	5	NA
13.	It's okay to ride with someone who speed if others do.	1	2	3	4	5	NA
14.	I don't want to risk my life and health by riding with an irresponsible driver.	1	2	3	4	5	NA
15.	I would never drive after drinking alcohol.	1	2	3	4	5	NA
16.	I would never ride with someone I knew has been drinking alcohol.	1	2	3	4	5	NA

Appendix C: Interview Questions

Main categories have been outlined, followed by broad questions (with potential re-phrasings in **bold** underneath the initial question), and lastly followed by specific prompts. *Italicized* words denote emphasis to be expressed during interviews. Parentheses indicate alternate wording that may be used depending on participant response. Square brackets indicate statements to help prepare participants for forthcoming questions.

[Intro: “We’re exploring how rural-born Saskatchewan residents have learned their current driving practices. By learning *how* people such as yourself develop their driving habits, we may be able to find out what *modes* or *methods* of driver’s education are most critical in developing safe or unsafe driving practices. These findings could benefit driving safety, especially on Saskatchewan’s rural roads and highways.”]

Category 1: General

1. First off, I’d like to hear about your driving experience in general. What has led you to drive vehicles the way that you currently do?

What sort of events, actions, or people have been pivotal in you developing your current driving practices.

Prompts:

- Particular events (e.g., first driving experience, accidents or near misses, notable lack of accidents or near misses)
- People that notably influenced driving practices
- Potential changes in moving from rural to urban setting
 - i. Obeying or disobeying traffic laws (e.g., speeding, traffic lights, traffic signs)
 - ii. Following or ignoring driving conventions (e.g., following distance, pulling over to allow passage when facing an oncoming vehicle on small side streets)

[Transition to next category: “Let’s turn to something a little more specific now. These next questions will ask about how you view the driving behaviours of others.”]

Category 2: Modeling

1. How, if at all, has the *behaviour* of others influenced your thoughts about driving?
What kind of observed behaviours have influenced how you think about driving?

Prompts:

- Potential sources: friends, family, students, community members, people on TV or in movies
 - Any actions they perform with their hands while driving?
 - Where do they look while driving?
 - Any devices that they use while driving?
2. How has this behaviour impacted your views of driving?

Prompts:

- Does anything seem either more acceptable or less acceptable than before?
- Feel you’ll drive differently than you had planned to before?

[Transition to next category: “Now that we’ve discussed the driving *behaviours* of others, let’s turn to the driving-related *conversations* that you’ve had with others.”]

Category 3: Overt Verbal Communication

1. Is there anything that other people say, to you or others, that affect your thoughts about driving?

Can you think of anything other people have ever said that’s changed your thoughts about driving?

Prompts:

- Potential sources: friends, family, students, community members, people on TV or in movies
 - Talking about safe (unsafe) driving?
 - Anything good (bad) said about other drivers on the road?
 - Personal driving stories?
2. How have these words affected your views of driving?

Prompts:

- Anything seem more acceptable or unacceptable than before?
- Have your planned driving practices changed?

[Halfway point: “Before moving on, I just wanted to say that we’re about halfway through the interview and from my point of view, it’s going great. You’ve provided some (detailed/informative/helpful) info. Is there anything you’d like to add before moving on?”]

[Transition to next category: “The following few questions are focused on how your parents or guardians have affected your current driving practices.”]

Category 4: Parenting Style

1. In general, are your parents controlling, permissive, or somewhere in between?

Prompts:

- Do they set lots of rules? No rules?

2. Can you tell me how the control (lack of control) exhibited by your parents affects how you think about driving?

Do your parents try to control how you think of driving or do they allow you to think of it in your own way?

Prompts:

- Are they controlling over your driving?
 - Specific expectations they will have for your driving practices?
3. Can you describe any ways in which your parents do, or do not, support your current thoughts or beliefs about driving?

What is a thought or belief you have about driving? Have your parents ever supported or challenged this thought or belief?

Prompts:

- Do they try to teach you about driving?
- Do they ask about your driving habits?
- Do they provide support or feedback on what you know about driving?

[Transition to next category: “Obviously, if drivers make mistakes, they might be punished for it – whether by their parents, the police, or someone else. Driving-related punishment is the topic of the next couple of questions.”]

Category 5: Punishment

1. Can you think of some instances where you have been punished for a driving-related behaviour?

What sort of consequences have you faced after disobeying the rules of the road?

Prompts:

- For example, if speeding, ignoring traffic lights, ignoring traffic signs
 - Social disapproval (from friends, family, or community)
 - Driving privilege revoked (parents or police)
 - Ticketed/fined (police)
 - Any differences between your rural and urban experiences?
2. How have these kinds of punishment affected you?

Prompts:

- Do they influence, or have they influenced, your future actions?
- Any differences between rural and urban experiences?
 - i. More/less tickets or fines
 - ii. More/less social disapproval
 - iii. Punishments impact future driving more/less

[Transition to next category: “We’re at the last couple of questions now. These last questions concern how driving with passengers affects your driving.”]

Category 6: Monitoring

1. When you drive with passengers, do you notice them paying attention to your driving - perhaps by commenting on or trying to correct your driving?

Does it seem like passengers are watching or evaluating your driving?

Prompts:

- For example, “backseat drivers” (passengers who tell you how to drive)
2. How does this attention to your driving impact you?

Do you experience any specific thoughts or feelings as a result of passengers watching you drive?

Prompts:

- Influence how you view driving (e.g., safety, utility vs. leisure)?
- Influence how you drive (e.g., speed less, speed more, etc.)?

Appendix D: Code List

Code	Description	Example
Model – Individual model of driving	Current mental model of driving encompasses individual model of driving, which is uniquely built through personal experience of environmental interaction while driving	“And I have seen [reckless driving in rural Saskatchewan] result in getting pulled over and getting tickets issued ... Watching people mess up and make mistakes just kind of reinforces the idea that I should be driving responsibly.”
Model – Cultural model of rural driving	Current mental model of driving informed by cultural model of rural driving, which is shared among rural Saskatchewan communities and learned by individuals through socialization and enculturation	“Yeah, [drinking and driving] is not as shamed as it should be within the peers and [rural] community. Like no one's really telling them to stop and there are no repercussions if they don't get caught or if they don't hurt themselves or others.”
Model – Cultural model of urban driving	Current mental model of driving informed by cultural model of urban driving, which is shared among urban Saskatchewan communities and learned by individuals through socialization and enculturation	“I guess I found in the city it's a lot easier to drive. Feel like people have a better sense of the road laws here than they do in rural areas.”
Mode – Observation and modeling	Current mental model of driving developed by observing the driving behaviours of others and/or modeling these behaviours	“I have had family and friends and just people that I know drink and drive ... just watching it happen kind of gives me a pang of ‘don't do that’.”
Mode – Overt verbal communication	Current mental model of driving developed through overt verbal communication with others (e.g., verbal education, feedback, and open discussion)	“When I was in drivers ed, there's still a few things that really stick out to me I guess. Like shoulder checking and that type of thing. I still can hear my drivers ed instructor in my head sometimes.”
Mode – Parenting style	Current mental model of driving developed by the presence or absence of parental control, rule setting, support, and warmth (i.e., parenting style)	“They've always trusted me if I was coming home late from somewhere ... They definitely do trust me.”
Mode – Punishment	Current mental model of driving developed through driving-related punishment (e.g., by law or social disapproval)	“I've never had a ticket or anything like that but knowing that in the city here they have the photo radar speed patrolling thing, just knowing all that stuff is out there definitely kind of ... keeps me in line.”

Mode – Monitoring	Current mental model of driving developed by one’s mere awareness of others monitoring his or her driving practices (e.g., by observation, evaluation, or supervision)	“When they're with me it will affect me sometimes. Sometimes I'll be like, ‘fine I’ll go faster’ and stuff like that. But if they're not with me I’ll drive to my own accord.”
Mode – Print educational materials	Current mental model of driving developed by reading print educational materials (e.g., driver’s training coursebook)	“When I am in a situation that I'm by myself and I haven't experienced [before] ... it's a lot more difficult to remember the [driver’s education course] booklet and what it told me to do.”
Source – Family	Family members influence the development of one’s mental model of driving	“My parents will express to not use cruise control when the roads are icy”
Source – Friends	Friends influence the development of one’s mental model of driving	“Some of my friends back home do- like I know that they do drink and drive regularly”
Source – Driving authority	Driving authority (e.g., driver’s education instructor, police office) influences the development of one’s mental model of driving	“I've never had an experience with the police while I’ve been driving.”
Source – Other drivers (strangers)	Other drivers that one does not know on a personal level influence the development of one’s mental model of driving	“That's like the most frustrating four-way stop ever. I get really mad there all the time. Some people just cut me off”

Appendix E: Within-case Analyses

Within-Case Analysis: Participant One (P1)

Participant information.

Participant ID code: 4536

Interviewers: Evan Poncelet, Maria Cruz

Date: January 26, 2018

Duration: 32 minutes

Interview location: University of Saskatchewan campus

Participant age: 22 years

Participant sex: male

Area participant raised in (rural/Saskatoon/other urban/other): rural

Area participant currently living in (rural/Saskatoon/other urban/other): Saskatoon

Is driving part of participant's job? No

Average hours participant drives per week: 1

MDSI (driving style) score: 17 ($M = 20.3$, $SD = 10.3$; max. possible score = ± 48 ; positive score = safer driving), indicating a fairly safe driving style

DRPS (driving risk perception) score: 21 ($M = 6.9$, $SD = 10.3$; max. possible score = ± 30 ; positive score = safer driving), indicating a safe level of risk perception

ATDS (attitude toward driving) score: 26 ($M = 15.9$, $SD = 13.5$; max. possible score = ± 48 ; positive score = safer driving), indicating safe driving attitudes

Within-case analysis summary.

Cultural model of rural driving. P1's perception of a cultural model of rural driving is well articulated as he has a firm conceptualization of what the public cultural mode is. Within this cultural model, drunk driving is engrained as a norm ("take-it-for-granted drinking and driving doctrine back home"). As such, drunk driving is treated casually and is even pressured on others in P1's rural community. Drunk driving is also just a means to an end, where people perceive a need to drive to their social gatherings; driving home drunk is just a consequence of this need, and one that is seen by P1's peers as normal. Furthermore, P1's peers consider the lack of taxi service to necessitate drunk driving. That is, other alternative options to drunk driving such as assigning a designated driver, are not seen as realistic options ("I'll be the first to say 'who's DDing' and they'll just say like 'nobody'"). The fact that P1 volunteers to be a designated driver is uncommon in his rural community. Unsafe practices are further entrenched due to a lack

of police presence to prevent their occurrence. It also seems that members of this rural community commit reckless driving behaviours (drunk driving, speeding, and “tearing up fields”), sometimes consciously but at other times unconsciously (“disregard or lack of knowledge for driving etiquette”).

Individual mental model of driving. A strong individual model of driving has been developed by P1, composed primarily of safe driving practices (e.g., defensive driving, driving within speed limits, and trying to convince others to drive more safely) – reflective of his generally safe scores on the driving questionnaires. A self-described cautious driver, P1 has likely adopted this accolade in part from his driving history being free of incidents or tickets, signalling that he is a safe driver. As well, P1’s cautious driving comes from his personal motivation to resist passively adopting the unsafe driving behaviours prevalent in his rural community (“my biggest motivator is kind of resisting that take-it-for-granted drinking and driving doctrine back home”). Yet, P1 is willing to transgress traffic laws or rules set by his parents when he perceives them to be low-risk (e.g., “sometimes not stopping at a stop sign if it's 2 AM and we're in Melfort”). Moving to the city posed a large adjustment to P1’s MM of driving, allowing him to accrue driving experience in the presence of other vehicles, demanding greater attention than what he was used to back home. This experience has likely also played a part in P1 establishing a fairly safe individual model of driving. Though he does express some difficulty in resisting passively replicating close others’ unsafe driving practices (“if I do transgress the rules that [parents] set then I will feel that ... guilt”), P1 tends to avoid perpetuating much of the cultural model of rural driving that he grew up around.

Cultural model of urban driving. P1 has a good understanding of the public cultural model of urban driving. This cultural model is seen as safer than rural driving as drivers

comprehend and obey traffic laws, which results in P1 encountering less reckless drivers (“don't have to worry as much about people driving at ridiculous speeds or cutting me off”). This comparatively safe driving appears to largely result from greater likelihood of legal punishment for unsafe driving (enforced road laws, police presence, etc.) and relatedly, greater understanding and adherence to traffic laws (e.g., driving within speed limits and without using a mobile device). For example, P1's friends only drive safer in the city because of legal presence rather than self-determination (“if [my friends] could they would”). Nonetheless, unsafe driving practices still exist in this model (“[drinking and driving] is taken as kind of a norm”) – just perhaps to a lesser degree than in the model of rural driving.

Sources of cultural model transmission. The source most impacting P1's private cultural model development is his friends and peers, largely by permitting him to learn vicariously of the negative effects of reckless driving (“learned from a lot of other people's mistakes”). Physical presence of friends is a determining factor of whether P1 will engage in reckless driving, though he still resists such driving if it passes a particular safety limit (“sometimes I will, sometimes I won't, depending on how the roads are”). Furthermore, P1's negative affect resulting from friends' reckless driving reinforces P1's safe driving practices (“upsetting because I refuse to [drink and drive] but there's nothing that I can say that would change [a friend's] mind about it”).

Having a more moderate effect on the development of P1's mental model of driving are family members and driving authority. The physical presence of family members impacts P1's driving (“my brothers will make fun of me for not going fast enough”) but does not exact long-term change or lead him to commit acts he deems overly unsafe (“if they're not with me I'll drive to my own accord”). As well, P1's sometimes heeds advice from his family members but ignores it when he sees it as questionable (e.g., mom's admonition to not use cruise control). Regarding

driving authorities, such as police officers and driver's education instructors, P1 seems to mostly reflect on others' confrontations with drunk driving initiatives and police ("[friends] drive more cautiously because there are more police"), having had few experiences of his own ("I haven't been involved in any driving related incidents"). However, P1 does assert that his current driving practices began with driver's training ("I guess it started with driver's education. They always tell you to drive defensively, not aggressively"), suggesting this has been a formative source for him. Anti-drunk driving campaigns may provide compelling messages, but P1 notes that they do not override the indoctrination of drunk driving held by members of his rural community. Finally, whether or not other drivers follow road laws influences P1's cultural model of driving, though P1 gave little emphasis to this source or other ways in which it facilitates mental model development, making only a small impression on him.

Modes of cultural model transmission. Of all the modes of cultural model transmission – observation and modeling, overt verbal communication, parenting style, punishment, monitoring, and print educational materials – P1 identifies observation and modeling as the most important to developing his private cultural models of driving. From childhood, P1 has been exposed to the reckless driving of others, which he views as senseless and a demonstration of how *not* to drive ("just watching it happen kind of gives me a pang of 'don't do that'"). This opinion may be a product of P1 seeing negative repercussions for others' reckless driving (e.g., being ticketed and involvement in incidents). As well, P1 has seen his mother commit irrational driving behaviours ("my mother will not use the cruise control") that he opts not to enact in his own driving (though he feels some guilt in enacting behaviours that his mother would not approve of). Thus, it is interesting that observation has a clear and substantial impact on P1's understanding of driving, and yet he resists replicating many of these observed behaviours.

Driving-related punishment has also been a strong indicator to P1 of cultural models of driving. In his rural community, P1 sees that there is a low probability of being pulled over, which some perceive as inviting unsafe driving practices (“very low probability of getting pulled over”). If others are punished for driving-related behaviours, P1 learns vicariously from observing this, reinforcing his safe driving practices; it is a deterrent from him driving recklessly (“don’t want that to happen to me”). When there are more police present (i.e., city driving), P1 drives more cautiously, as do his rural-raised friends. However, while P1’s friends only drive cautiously in police presence because of fear of legal punishment (not because they care about safety), it appears that P1 does value safety. Yet, P1 is willing to carry out punishable driving behaviours when he feels certain that he will not cause harm or get caught (“not stopping at a stop sign if it’s 2 AM [in rural settings]”).

Having a lesser but still moderate impact in transmitting to P1 cultural models of driving are overt verbal communication and monitoring. Overt verbal communication has illustrated to P1 both safe and unsafe practices evident in cultural models. Instruction from P1’s driver’s education teacher has taught him defensive driving practices; however, it seems many of P1’s rural community members did not internalize this information the way that P1 did. Conversation between P1 and his peers is dominated by their taken-for-granted drunk driving practices, which they mutually reinforce on each other. Immersed in this community, P1 feels pressured to engage in similar driving practices, but ultimately resists doing so (“it does affect how I think about it, but I don’t think it will affect my decision”). Likewise, P1’s pleas for others to drive safely are sometimes adhered to in the short-term but are often ignored and do not create long-term behavioural change (“I don’t think it will have any lasting behavioural effects”). For monitoring, change is imparted on P1’s mental model of driving through the presence of others – especially

siblings and friends – while driving, so long as it fits within his perceived threshold of safe driving (“sometimes I will, sometimes I won't, depending on how the roads are”). However, little of P1’s dialogue focused on monitoring.

Similarly, little data is available on the parenting style of P1’s parents. Though, what is available indicates that parenting style has a low impact on conveying cultural models to P1. While rules are set by P1’s parents against unsafe driving practices (e.g., drunk driving, speeding, mobile phone use), it seems that he has been against such practices from a young age, before these driving rules were set. Other rules are seen by P1 as illogical (e.g., not using cruise control), which P1 ignores, albeit with a little guilt (“I’ll [use cruise control] anyway and I just have a bit of a twinge of guilt”). Otherwise, P1’s parents provide him with freedom in deciding how to drive, though it is not clear exactly how this impacts his MM of rural driving.

Within-Case Analysis: Participant Two (P2)

Participant information.

Participant ID code: 3867

Interviewer: Evan Poncelet

Date: January 29, 2018

Duration: 20 minutes

Interview location: University of Saskatchewan campus

Participant age: 19 years

Participant sex: female

Area participant raised in (rural/Saskatoon/other urban/other): rural

Area participant currently living in (rural/Saskatoon/other urban/other): rural (Aberdeen)

Is driving part of participant’s job? No

Average hours participant drives per week: 6

MDSI (driving style) score: 35 ($M = 23.5$, $SD = 11.6$; max. possible score = ± 48 ; positive score = safer driving)

DRPS (driving risk perception) score: 15 ($M = 17.4$, $SD = 6.9$; max. possible score = ± 30 ; positive score = safer driving)

ATDS (attitude toward driving) score: 33 ($M = 15.9$; $SD = 13.5$; max. possible score = ± 48 ; positive score = safer driving)

Within-case analysis summary.

Cultural model of rural driving. Though P2 did not speak much to this cultural model, it is apparent that by observing friends/peers and other drivers from an early age, P2 has internalized a cultural model of rural driving that is reckless and dismissive of road laws and rules (“people ignore the speed limit a lot more in town”). The reasoning behinds others’ unsafe driving is not explained, but P2’s emphasis on grid-road driving in her rural community suggest this may be a factor with these roads being unpaved and barren. This model is further reinforced by a perceived lack of police presence and punishment for reckless driving (“if there were more police in town I feel like [drivers] would be more cautious, but there often isn’t”).

Individual mental model of driving. Regardless of internalizing an unsafe cultural model of rural driving, P2 seems to be a fairly cautious driver (also represented in her driving questionnaire scores), owed in part to her individual model of driving that has grown from personal experiences of driving incidents and infractions. P2’s careful driving style seems also to stem from placing partial blame of negative driving experiences on environmental factors (e.g., “didn't feel like I deserved it because it was on gravel”). The effect of environmental factors on P2’s individual model of driving is further emphasized by her desire to have friends in the vehicle to act as spotters, making her feel more at ease (“I feel like if I don't see something, they will”). P2’s individual model is sufficiently developed to allow resistance against replicating the unsafe driving behaviours she observes others commit. This conclusion is supported by P2’s results on the driving questionnaires, indicating safe driving style, attitudes, and risk perception. Not only is this resistance evident in rural driving settings, but urban settings too.

Cultural model of urban driving. Relatively little is revealed by P2 on the cultural model of urban driving, perhaps because she currently lives in a rural area, though she drives primarily

in urban settings (e.g., University of Saskatchewan campus). What is revealed is a private cultural model of urban driving where drivers are faced with more police, traffic and cameras than in rural areas, yet they still drive erratically or unsafely – particularly out of impatience (“people just honk at each other if you don't go right away”).

Sources of cultural model transmission. Looking at P2’s narrative, all sources of culture model transmission moderately influence cultural model transmission. Starting with family, parents’ expectations were said by P2 to have the most impact on her driving practices, indicating they play a notable role in transmitting cultural models of driving, especially when there is established trust with parents (e.g., minimal driving-related rules; “it is nice that they trust me because it makes me feel more confident in my abilities”). However, there are instances where parents are ineffective sources of model transmission, such as when P2’s dad is aggressively directing her driving (e.g., by yelling). The likewise modestly influential source of friends and peers has also played a role in P2 developing her MM of driving. While some friends are helpful by boosting P2’s driving confidence (“my one friend ... she's basically a driving instructor for me ... she's always bringing me confidence ... it is helpful), others are helpful by exemplifying how *not* to drive (“makes you more cautious because I don't drive like that”).

Driving authorities (e.g., driving instructors, police officers, and insurance brokers) convey cultural models of driving effectively through statistical facts (“driving instructor said that one in three people get in a car crash ... that made me not want to fall into that statistic”) and administering legal repercussions (“got a driving without due care and attention ticket”). The influence of authority figures is less prominent when they are not physically present and when P2 identifies environmental factors, rather than authority figures, as the source of repercussions (e.g., poor road conditions). Lastly, other drivers relay cultural models of driving to P2 primarily

by speeding and disobeying streetlights in the city (“people would run the yellow and five more people would run the red”), particularly with impatient drivers on the university campus.

However, indication of the strength of other drivers’ influence is only briefly referred to in one of P2’s responses and in this example is just acknowledging that they do in fact influence her driving practices.

Modes of cultural model transmission. When asked which mode of cultural model transmission is strongest for her, P2 responded by identifying three modes: parenting style, punishment, and monitoring. Regarding parenting style, it is in fact parents’ *expectations* that P2 specifically identifies as impacting her driving practices. Such expectations fit within parenting style, but among other separate factors (e.g., warmth and support). It seems that a lack of warmth (e.g., displaying anger) toward P2 inhibits the influence of parenting style, while being permissive (e.g., setting few rules, being understanding of incidents) enhances the impression of this mode. Trust is also important – P2’s parents being expressive of trust in her driving skills brings her confidence and reinforces her driving practices, while P2 states the opposite would be true if her parents did not trust her driving.

Turning to punishment, P2 states several times that it has affected her driving practices (e.g., “I try to be more cautious and correct whatever may have caused the last incidents”). As such, punishment seems to substantially influence P2’s MM of driving, magnified when bearing legal repercussions (“I just don’t want my license taken away”). Yet, the power of punishment is somewhat dampened by P2 considering circumstance to play a large role in her incidences, creating what she feels to be unwarranted punishments. Lastly of these top three modes, monitoring appears to be a strong influence for P2 when her friends are involved (e.g., making her feel safer and more confident), but not so much when her parents (specifically, father) are.

P2's father's overly critical or angry demeanour reduces monitoring's effectiveness "my dad was like 'just go in there!' It did not help").

Though not explicitly identified as a top mode of influence, observation and modeling bears formidable sway over P2's MM development. With other drivers constantly in view, observing others' driving behaviours serves as a powerful mode of cultural model transmission, yet its primary effect is "example[s] of what not to do while driving". It seems P2's individual model of driving protects against passive acceptance of observed unsafe driving practices. Less effective, but still at a moderate level, overt verbal communication effectively transmits cultural models of driving, particularly when the information is backed by statistics in a formal education setting. While other instances of communication are also evident (e.g., parents complaining about other drivers), it is not discernable how most of these communications affect P2's MM of driving.

Within-Case Analysis: Participant Three (P3)

Participant information.

Participant ID code: 7689

Interviewers: Evan Poncelet, Maria Cruz

Date: February 1, 2018

Duration: 38 minutes

Interview location: University of Saskatchewan campus

Participant age: 19 years

Participant sex: female

Area participant raised in (rural/Saskatoon/other urban/other): rural

Area participant currently living in (rural/Saskatoon/other urban/other): Saskatoon

Is driving part of participant's job? No

Average hours participant drives per week: "I drive every day to campus"

MDSI (driving style) score: 34 (M = 23.5, SD = 11.6; max. possible score = ± 48 ; positive score = safer driving)

DRPS (driving risk perception) score: 21 (M = 17.4, SD = 6.9; max. possible score = ± 30 ; positive score = safer driving)

ATDS (attitude toward driving) score: 11 (M = 15.9; SD = 13.5; max. possible score = ± 48 ; positive score = safer driving)

Within-case analysis summary.

Cultural model of rural driving. For P3, the cultural model of rural driving is seen mostly as safe (“always in a safe environment, and I always had someone with me”), though permissive of speeding, in part due to isolation (wildlife is seen as the main danger) and low police presence. However, P3’s narrative of this cultural model relates mostly to its merit, offering P3 utility (i.e., farm work and family transportation) and driving experience from an early age. Because driving before legal age is commonplace in P3’s rural community, she feels that youth are better equipped to attempt their driver’s license exam, as well as driving in larger cities.

Individual mental model of driving. P3 has established a solid individual model of driving through over five years of driving experience. This experience was only possible from learning to drive at a young age (12 or 13 years old), which her parents were supportive of. P3 is grateful for learning driving early on as it has eased tension while driving in the city and during her driver’s exam (“when you’re raised rurally, and you learned to drive at such a young age, [driving in the city] isn’t so scary anymore”). This experiential learning is seen by P3 as more instructive than other learning methods such as reading (e.g., in driver’s training). Overall, P3 drives cautiously, partly owed to environmental factors (whether wildlife in rural SK, pedestrians and other drivers in the city, or weather conditions in either setting), experiencing near-misses while driving (almost hitting a deer, as well as another vehicle), and taking on her mom’s safe driving practices. Also, P3 has never been pulled over by police or ticketed but has been in a minor incident (backed into someone else’s vehicle while parallel parking), which has inspired her to drive more cautiously and even avoid parallel parking. While her comfort has increased with experience, P3 still seems to feel on edge when driving with friends as passengers (“when I have someone with me everything goes wrong ... miss a light or you stop too soon for a light”).

This robust individual model, expressive of safe driving practices reflects the generally safe scores on her driving questionnaires, has helped P3 to resist passively adopting her friend's reckless driving practices.

Cultural model of urban driving. P3 sees the cultural model of urban driving as involving a greater adherence to traffic laws (e.g., speeding) than in rural communities due to greater enforcement (e.g., police presence and photo radar). However, urban driving is still seen as rather unsafe because of the many distractions and environmental factors in the city (e.g., traffic lights, pedestrians, and other drivers). In fact, P3 has heard of pedestrians getting hit by vehicles in the city, which presents a sense of danger different from what she is accustomed to back home in her rural community. Furthermore, P3 finds urban drivers to generally be aggressive and unsafe (e.g., honking, speeding through lights, tailgating), potentially because they are impatient and in a rush ("aggressive driving up here [in Saskatoon]; in terms of honking and riding on people's bumpers").

Sources of cultural model transmission. Experiences involving P3's family have been instrumental in shaping her current MM of driving, reflected in parenting style being identified by P3 as one of the two most influential modes for her understanding of cultural models. P3's mother's driving practices are seen as safe, which P3 tries to incorporate into her own driving. Although P3's mother was controlling when P3 got her driver's license (and her father, to a lesser degree), she is more trusting now. Reflecting on her parents' driving rules, P3 feels they have been beneficial to her, but she has trouble articulating exactly how ("I don't really know how that would have influenced me, but it was good"). Conversely, P3's sister, who lives in Saskatoon, drives aggressively, indicating the cultural model of urban driving and providing P3 with what she perceives as an example of how not to drive.

P3's friends play a similarly large role in her establishing a private cultural model of rural driving. Friends' stories of reckless driving and near-misses illustrate the dangers of driving in rural areas, especially at night when it is difficult to spot wildlife ("don't like driving at night because other people have had near misses or basically hit other wildlife"). A detailed example is given by P3 of her friend that speeds on rural roads because of low police presence, demonstrating that such driving is permitted in rural areas. As well, P3's cautious driving in the city makes her rural-raised friends nervous, perhaps suggesting that they would drive more erratically in a setting with many more distractors than rural areas.

Portions of P3's narrative relating to driving authority are solely focused on legal figures. To P3, having little police presence in rural areas is indicative of tolerance for reckless driving. Oppositely, there is evidence of heavy enforcement of traffic laws in the city (e.g., police officers and photo radar), suggesting to P3 that reckless driving is not tolerated in this setting. Though she has never been ticketed for a driving offense, backing into a parked car strongly impacted P3's MM of driving and reinforced that there is no leniency in urban areas for transgressing traffic laws - largely through the insurance process she had to engage in following the incident ("had to file a claim ... would not like to do that ever again").

Other drivers appear to be highly formative of P3's MM of driving, largely in informing her individual mental model. The mere presence of other vehicles in the city forces P3 to drive more cautiously. Driving alongside other drivers on the highway also increases the caution with which P3 drives. Essentially, P3 adjusts her driving to account for unsafe practices of other drivers. News stories of other drivers have also conveyed to P3 that the cultural model of rural driving is hazardous, as it is not uncommon for pedestrians to be struck by vehicles.

Modes of cultural model transmission. The two most influential modes of cultural model transmission on the development of P3's mental model of driving are parenting style and punishment – both of which P3 explicitly identified as the most impactful. Regarding parenting style, from an early age, P3 learned that traffic laws are not fixed in urban communities; her parents allowed her to drive at 12 or 13 years old to help out with family-related tasks. P3 credits this support of her parents in pre-legal driving for her driving confidence and expertise (“[parents] being more lenient and open to early exposure was really nice, and I think has really benefited me in the long run”). Once P3 acquired her driver's license, her parents became more controlling (more so mother than father), to P3's surprise. At this point, some driving rules were set (e.g., curfew), but freedom was given in other facets (e.g., where P3 could drive). P3 feels that driving rules were beneficial to her, though she has trouble articulating exactly how (as previously mentioned). Nonetheless, P3's parents are more trusting of her driving now, resulting in less rules and control over her driving.

Turning to punishment, in rural areas, there is no punishment for driving recklessly (e.g., speeding) because there are no police to prevent it, suggesting to P3 that reckless driving is permissible. However, P3 has almost hit wildlife and another driver while driving rurally. Reflecting on the punishment that would have followed these near-misses deters P3 from driving without care, but (as she states) “not like overly excessively”. It appears that P3's individual model of driving built from personal experience is combatting the cultural model of rural driving's prescription to drive recklessly. P3 finds that greater care and attention are required in the city because there are more distractors (e.g., police and pedestrians) and a greater likelihood of punishment because of greater enforcement (e.g., police presence and photo radar). Although P3 has never been pulled over before, having to pay for damages after backing into a parked car

left a lasting imprint on her – she avoids parallel parking entirely now (“I’m gonna avoid that at all costs now”).

Having a moderate influence on her MM development, cultural models of driving are transmitted to P3 by observing and/or modeling the behaviours of others around her, particularly her sister, mother, and other drivers. Specifically, P3 models her mother’s driving behaviours because they are seen as ideal and safe, but not her sister’s whose are seen as less cautious. Concerning other drivers, their driving behaviours often convey to P3 unsafe models of driving, forcing her to alter her own practices to avoid incidents (e.g., drive more cautiously). The reckless driving behaviours of P3’s friend also provides her with unsafe practices characteristic of rural driving, which P3 views of examples of how not to drive. Having a similarly moderate effect on model development, stories from friends and newscasters help P3 to understand cultural models of both rural and urban driving. Numerous stories of hitting wildlife at night while driving in rural areas has made P3 scared of driving at night. Likewise, news coverage of pedestrians being hit by vehicles in Saskatoon enforces the belief that driving is unsafe in cities.

P3 does not feel the need to alter her driving practices based on passengers’ monitoring, though her driving may be negatively impacted regardless (e.g., running red lights, stopping short, and becoming nervous). Monitoring conveys cultural models of driving to P3 to a modest degree – with her rural-raised friends, P3’s driving makes them nervous, suggesting it is discordant with driving practices in rural Saskatchewan. A similar situation is seen with P3’s mother as a passenger, also reflecting a mismatch between P3’s driving practices and those typical of rural drivers. The final mode to consider, P3 only hints at the influence of print educational material in one passage of dialogue (“I’ve learned all that stuff in a realistic thing rather than reading it in a book”). From this excerpt, it seems clear that she values real-life

experience over reading instructional materials. However, given scarcity of data, it is unknown exactly how effectively this mode transmits cultural models to P3.

Within-Case Analysis: Participant Four (P4)

Participant information.

Participant ID code: 4366

Interviewer: Evan Poncelet

Date: February 2, 2018

Duration: 35 minutes

Interview location: University of Saskatchewan campus

Participant age: 18 years

Participant sex: female

Area participant raised in (rural/Saskatoon/other urban/other): rural

Area participant currently living in (rural/Saskatoon/other urban/other): Saskatoon

Is driving part of participant's job? No

Average hours participant drives per week: 4

MDSI (driving style) score: 31 ($M = 23.5$, $SD = 11.6$; max. possible score = ± 48 ; positive score = safer driving)

DRPS (driving risk perception) score: 20 ($M = 17.4$, $SD = 6.9$; max. possible score = ± 30 ; positive score = safer driving)

ATDS (attitude toward driving) score: 20 ($M = 15.9$; $SD = 13.5$; max. possible score = ± 48 ; positive score = safer driving)

Within-case analysis summary.

Cultural model of rural driving. The cultural model of rural driving as understood by P4 gives consideration to driving safety through parents (e.g., driving supervision) and schools (“in driver’s education, they discuss drunk driving ... that probably affected the way that I think about it now for sure”). Yet, unsafe driving practices are also part of this model given the commonality of speeding, radar detectors, and drunk driving. While it seems that most people are aware of these driving practices being unsafe, they carry them out regardless. This disregard for safety may stem from the perceived benefits of driving (e.g., practicality, emergencies, etc.) or tendency for rural youth to start drinking at a relatively young age. Driving at an early age is also normal within this model (e.g., P4 drove dirt bikes at 4 years old; cars at around 10). While P4’s parents were supportive of this early driving tendency, she feels that many parents are not.

Individual mental model of driving. From a young age (4 years old) P4 has developed an individual model of driving through experience driving dirt bikes, which was furthered at about 10 years old when she started driving cars, and then underwent immense growth at legal driving age with extensive highway driving. P4 is grateful for learning to drive from a young age, mostly for practical reasons (job opportunities, confidence). It seems that P4 is a confident, bordering on aggressive (expressive of angry driving style), driver who is intolerant of slower drivers (passes them on the highway, “get out of my way”, etc.). Laws are seen by P4 to be flexible to a degree (e.g., will speed), but is kept in check in part by the threat of legal repercussions for unsafe driving (“I was terrified that I was going to get a ticket”). Although she resists requests of close others to drive faster, this may foremost be owed to P4’s “bossy” personality (not necessarily because it’s unsafe). Overall, P4 drives in line with the cultural model of rural driving to a degree, though she is intolerant of rural drunk driving; however, her questionnaire scores indicate she is a safe driver. Making it even more interesting that P4 rejects drunk driving, she sees this act to also be condoned in urban settings.

Cultural model of urban driving. The cultural model of urban driving is seen by P4 as one of primarily aggressive and unsafe drivers (drunk driving, cutting people off, etc.), though she states drunk driving is seen by her as less a problem here than in rural communities. Due to the number and behaviours of other drivers, urban driving is more frustrating for P4 than rural driving. Much less is spoken to urban driving than rural driving by P4, indicating she may not have a firm conceptualization of this cultural model (which, given her young age, would make sense if she only moved to Saskatoon for university).

Sources of cultural model transmission. Family has the highest impact of all sources on P4’s MM development. P4’s family, especially her father (former driver trainer; “I consciously

think about [father's driving advice] and back off of other vehicles") have been a huge source of impact on her MM of driving. Throughout childhood, P4 was exposed to her parents' driving frequently on long family drives, on which they exemplified that traffic laws (e.g., speed limits) can be broken as long as the driver is vigilant (which reflects P4's current driving practices). Despite espousing this malleability of the law, P4's parents have always stressed safety (e.g., defensive driving). Similar teachings were gleaned by P4 from passively listening to conversations between others (dad and brother). P4's grandparents have also impacted her MM of driving development; namely, by owning the farm on which she learned to first drive at a very young age.

Friends and peers have conveyed to P4 the dangers of reckless driving (e.g., drinking and driving), which she has internalized in her MM of driving. That is, P4 resists replicating the reckless behaviours of her friends and peers (via her individual model), taking away from their behaviours only the negative consequences. P4 also expresses frustration in being unable to alter the driving behaviours of her friends and peers. Overall, friends and peers are a moderate source of cultural model transmission. Similarly, other drivers can be a powerful source of P4's MM development primarily by interfering with or distracting her driving (e.g., cutting her off). However, the influence of these other drivers is mitigated when P4 can convince herself to pay them no attention.

Finally, driving authority has had modest sway over P4's MM of driving development, namely police officers, boarding school staff, and her driver's education instructor. Though many rules were set at boarding school, it sounds as though they were not well monitored. Although other students would drink and drive, P4 would not, perhaps because of her driver's education ("in driver's education, they discuss drunk driving ... that probably affected the way

that I think about it now for sure”). Police officers, by never having ticketed P4, have helped her establish a MM of driving through which she sees herself as a safe driver (“not getting any tickets makes me a better driver than other people”). P4 may also be influenced by driving authorities through her father who has adjusted his behaviour after being ticketed several times.

Modes of cultural model transmission. Three modes appear to be highly influential in transmitting cultural models of driving to P4 and were explicitly identified by P4 as among the most powerful: overt verbal communication, parenting style, and punishment. Aside from this outwardly stated accolade, the major role that overt verbal communication plays in transmitting cultural models of driving to P4 is apparent through the words of P4’s dad (former driver instructor) – brought up several times in having a large impact (e.g., “I consciously think about that and back off of other vehicles”) – and passively listening to open communication between others (dad and brother), which affected P4’s MM development even before driving age. Driver’s training in high school was also instructive. However, stories of friends drinking and driving formed a negative perception of drinking and driving from a young age. Overall, these communications have conveyed a fairly safe model of driving, though P4’s parents have taught her that driving laws are not concrete (which is how she drives now).

Turning to parenting style, from a young age P4’s parents permitted her to drive, mostly for practical reasons (e.g., emergencies, farm work); not for leisure. Throughout her life, P4’s parents have been focused on P4’s driving safety (e.g., protective equipment, physical presence, vehicle with high safety rating). Once driving age, parents were respectful of P4’s freedom, setting few rules – perhaps because P4 had not provided a reason for them to create strict rules (e.g., had not demonstrated poor driving). Last of these three high influencers, punishment has been experienced by P4 primarily in terms of legality and safety. Seeing others get into accidents

or thinking she would receive a ticket reinforces P4's safe driving practices ("I would say that if I did get a ticket I would probably slow down"). While P4 states that punishments do stick in her mind, they are not thought about constantly while driving. P4 has not been legally reprimanded before, suggesting to P4 that she is a good driver ("not getting any tickets makes me a better driver than other people"), though she feels that she is also lucky to have not received a ticket yet.

Moderately significant in transmitting cultural models of driving, observation and modeling seems to affect P4 differently depending on the source involved. With parents, P4 speaks of fairly neutral driving practices (speeding, but within reason for highway driving), as well as safe ones (e.g., defensive driving), that she has adopted. With her brother, P4 sees (debatably) unsafe driving behaviours (using a radar detector and speeding) that also impact her MM of driving. Then, with other drivers, P4 finds it hard to resist reciprocating unsafe driving behaviour (e.g., other drivers "getting angry"), except for drinking and driving.

Although there is only a miniscule amount of discussion on print education material, P4 does identify it as helping her to learn, passing on cultural models of driving. The involvement of P4's father could impact the strength of this mode considering his influential role in P4's MM development. Finally, though data is sparse regarding monitoring, it seems this mode minimally conveys to P4 cultural models of driving. The only substantial monitoring seems to be from P4's friends which does not seem to influence her MM of driving and is resisted, perhaps via her individual model of driving.

Within-Case Analysis: Participant Five (P5)

Participant information.

Participant ID code: 8414
Interviewer: Evan Poncelet
Date: February 2, 2018

Duration: 23 minutes

Interview location: University of Saskatchewan campus

Participant age: 18 years

Participant sex: female

Area participant raised in (rural/Saskatoon/other urban/other): rural

Area participant currently living in (rural/Saskatoon/other urban/other): Saskatoon

Is driving part of participant's job? No

Average hours participant drives per week: 5-6

MDSI (driving style) score: 26 ($M = 23.5$, $SD = 11.6$; max. possible score = ± 48 ; positive score = safer driving)

DRPS (driving risk perception) score: 4 ($M = 17.4$, $SD = 6.9$; max. possible score = ± 30 ; positive score = safer driving)

ATDS (attitude toward driving) score: 11 ($M = 15.9$, $SD = 13.5$; max. possible score = ± 48 ; positive score = safer driving)

Within-case analysis summary.

Cultural model of rural driving. To P5, the cultural model of rural driving accommodates unsafe driving practices. Although P5 indicates that her family drives cautiously, as do other drivers in town because of kids playing on the streets, grid-road driving usually involves speeding and stunting. Furthermore, P5 has often heard community members complain about slow drivers (“other people [back home] say ‘oh it’s so annoying when other people are driving that speed and you have to pass them all the time’”), reiterating that speeding is part of the cultural model of rural driving. However, P5 rejects such unsafe behaviours because they scare her. Perhaps the difference between which P5 and the typical community member views unsafe driving practices is explained in part by P5’s family members being positive driving role models. Another reason could be driving experience – P5 waited until legal age to start driving, whereas many of her peers began driving at a young age to help out with family farm work. Yet, P5 did drive quads at a young age, providing a driving experience similar to larger vehicles. It seems commonplace for people to own quads, which gives children and youth a chance to experience driving before larger vehicle use and portrays driving as part of rural culture.

Individual mental model of driving. The development of P5's individual mental model of driving likely began at a young age when she would sit on her mother's lap to drive (while mother worked the pedals) and drove quads at friend's houses. However, unlike most members of the community, P5 waited to drive larger vehicles until legal age. When first learning to drive larger vehicles, P5 felt nervous and unskilled, though her confidence in driving ability has increased with experience ("I've had some experience driving in the city before I moved here so it wasn't an issue"). P5 feels compelled to keep up with traffic and hears people back home talk about their irritation with slow drivers, which may be two reasons that she used to speed. P5 continued to speed despite her mother asking her not to. It seems that P5's driving practices have changed since two incidents she has had while driving on icy roads. Now, P5 drives more cautiously during icy road conditions, to the point that she will drive slower than traffic and let people pass her. Part of this change is because P5's father was angry about the one incident, as well as nearly receiving a ticket from police for one of the incidents. Cautious driving is also a result of P5's poor eyesight ("I'm a little blind though, hence the glasses ... I just try to not drive at night"). Additionally, P5 is a more cautious and vigilant driver when driving with passengers than when alone, when she "does not think that much". There is a tendency for P5 to blame environmental factors such as road conditions and tire quality for her incidents, though it is unclear whether or not these were in fact the main issues. Overall, P5 hovers around a middle ground of driving safety, balancing the safe practices of family members with generally unsafe practices of her friends and other community members; for example, she will speed slightly to keep up with traffic (~110km/hr on highways). This conclusion is reflective of P5 scoring safely on the measure of driving style in Study One and near neutral on measures of driving risk perception and attitudes toward driving.

Cultural model of urban driving. Little of P5's narrative explores the cultural model of urban driving, indicating she may not have a firm conceptualization of this cultural model (which, given her young age, would make sense if she only moved to Saskatoon for university). However, P5 emphasizes the high volume and fast pace of traffic while city driving, which is a prime motivator of how she herself drives.

Sources of cultural model transmission. Despite inconsistencies in their parenting styles (discussed at length in the next subsection), P5's parents, as well as her brother, strongly relay the cultural model of rural driving to her ("it's kind of where I got a general idea of how to drive before I even did"). For example, P5's parents drive cautiously – almost too cautiously, in P5's eyes – and ask her to do the same (e.g., drive within speed limits and slow down in poor weather conditions), which she does to a degree. P5 has also learned about driving from watching her brother, though not so much from conversing with him ("doesn't say anything [about driving]. He doesn't really care"). P5's parents have been her primary (informal) driving instructors, which seems to be part of why they impact her driving as much as they do. As well, P5's father's anger and discipline following her driving-related incidents has reinforced the need for her to drive cautiously. Actually, when asked about the most influential mode of model transmission, P5 replied that it is her parents – particularly, punishment from her parents ("when my dad would be mad at me at something that would happen ... I just feel really bad about it and not want it to happen again"), highlighting the importance of this source of cultural model transmission. The remaining sources of model transmission have a more moderate effect on P5.

Driving authority, such as driving instructors and police officers, have conveyed to P5 that reckless driving is not tolerated in rural areas. P5 does not remark much on her driving instructor but notes that he or she was more of a teacher than P5's parents (who have had a large

impact on her MM development). Regarding police officers, the officer at P5's one driving incident did not charge her, but P5 feels it was close. P5 has driven more cautiously since the incident.

Though P5 does not speak much to the influence of her friends and peers, it is apparent that her friends indicate to her that the cultural model of rural driving is accepting of reckless driving. Furthermore, P5 admits to being influenced by her friends' reckless driving, though she will not enact it to the same extent that they do. Similarly scare information is spoken by P5 regarding other drivers, but she does indicate that community members and other drivers demonstrate speeding on highways and in rural areas as acceptable, which affects P5's driving speed within reason, though she will still not speed under icy driving conditions because of her previous incidents on icy roads.

Modes of cultural model transmission. Observing others has highly communicated to P5 the cultural model of rural driving, with P5 seeing friends and community members drive recklessly, regardless of road conditions, but family members drive with the utmost care. Observing these actions – both safe and unsafe – influences P5's driving practices. For example, P5 drives cautiously because that is how her parents drive. Yet, P5 considers family members to be overly cautious at times and, although she has learned from them, will not drive as cautiously. P5 is also less cautious than her parents because of the reckless driving behaviours she sees her friends committing (“drive cautiously because my parents drove really cautious but not as cautious because ... my friends drive and they're a lot more reckless”). However, P5 does not replicate certain dangerous driving behaviours that she sees (e.g., stunting on icy roads) because of the potential negative repercussions (“he went into a slew”) and fear she experiences in doing so. Instead, P5 seems to take on the influences of multiple sources that she observes driving,

balancing them in her driving practices (i.e., sometimes driving safely, sometimes driving unsafely).

Punishments, primarily social (from parents) and legal (from police), have also effectively relayed to P5 cultural models of driving. In fact, P5 cited punishment as the most influential mode of model transmission. P5 has adhered to safe driving practices learned in this manner quite well. After two separate incidents involving icy road conditions, P5 is “overly cautious” when driving under such conditions, though she seems to place the blame on the road conditions rather than her driving. P5 is also inclined to drive safely after being with friends who’s reckless driving ended in a slew. Punishments having the highest impact on P5’s MM of driving relate to social disapproval from her parents. Specifically, P5’s father, angry following her incidents, has made her drive more cautiously (“he was mad. So, I was more cautious after that”), especially because she drives his car. Also having a big effect on P5’s MM of driving, a police officer *almost* ticketed P5 for reckless driving, which she says makes her a more cautious driver now.

Overt verbal communication has been fairly influential in P5 learning about cultural models of driving but, like observation and modeling, illustrates a “push and pull” between safe and unsafe driving. On the one hand, communication with family members and her driving instructor has taught P5 that cautious driving is to be exercised in rural areas (e.g., driving within speed limits), which she mostly respects. On the other hand, communication with other community members indicates to P5 that speeding is permissible in rural areas (“people [back home] complain about people driving slow”). The result is P5 driving somewhere in between both influences in terms of safety.

The parenting style of P5's parents has also had a moderate impact in conveying to her the cultural model of rural driving. In fact, although punishment was stated by P5 as most influential mode, it is specifically her *parents'* punishment that she finds impacts her driving most (e.g., discipline following a driving incident taught P5 that reckless driving was unacceptable). Also, at her parents' behest, P5 did not learn to drive until legal age, reinforcing for P5 that traffic laws are important in rural areas – something she still believes. However, inconsistencies that P5 has experienced in the parenting style of her parents (concerning driving) has caused some confusion in what the cultural model of rural driving consists of and what driving practices she should express. Between parents, inconsistencies are evident – after a driving incident, P5's mother was concerned for P5's safety while her father only expressed anger (“dad was just straight up mad. Didn't talk to me for a little while after that”). But also, within parents P5 has seen inconsistencies: P5's mother has switched between authoritative and permissive styles regarding P5's driving practices (“she would be very concerned about what was going on ... but then she would go back to not caring”). Similarly, P5's father was uninvolved in P5's driving when she first got her license, but later became authoritarian (“he got extremely controlling and angry all the time about it”).

Lastly, from the brief information that P5 discusses on monitoring, this mode does not give indication to cultural models of driving. P5 drives more cautiously with passengers than when alone, regardless of whether they are actively monitoring her driving behaviour. Thus, it seems monitoring does not have a large impact on P5's MM of driving.

Within-Case Analysis: Participant Six (P6)

Participant information.

Participant ID code: 7830
Interviewer: Evan Poncelet, Maria Cruz
Date: February 9, 2018

Duration: 21 minutes

Interview location: University of Saskatchewan campus

Participant age: 18 years

Participant sex: female

Area participant raised in (rural/Saskatoon/other urban/other): rural

Area participant currently living in (rural/Saskatoon/other urban/other): Saskatoon

Is driving part of participant's job? No

Average hours participant drives per week: 1

MDSI (driving style) score: 36 ($M = 23.5$, $SD = 11.6$; max. possible score = ± 48 ; positive score = safer driving)

DRPS (driving risk perception) score: 18 ($M = 17.4$; max. possible score = ± 30 ; positive score = safer driving)

ATDS (attitude toward driving) score: 16 ($M = 15.9$; max. possible score = ± 48 ; positive score = safer driving)

Within-Case Analysis Summary

Cultural model of rural driving. To P6, the cultural model of rural driving predominately involves reckless driving (e.g., speeding, swerving, and fishtailing), which is promoted by a perceived leniency over traffic laws (e.g., speeding a little over the limit), simplicity in rural driving, and lack of vehicles, pedestrians, or others environmental factors to be vigilant of. Such driving behaviours, including a friend crashing into a ditch while speeding, deters P6 from future reckless driving as it scares her. Additionally, rural driving, including driver's education, is seen as overly basic, inadequate in preparing for driving in complex environments such as large cities ("that's why kids really struggle when they get to the city: because they had it easy when they were in their small town"). On the other hand, P6's parents modeled safe driving practices that made her feel calm, perhaps providing evidence to her that at least a portion of the cultural model of rural driving contains safe driving practices.

Individual mental model of driving. P6 is first and foremost a cautious driver, stemming in part from her personality ("I'm more like shy, timid, and cautious") and reflective of her questionnaire scores. Additionally, moving to Saskatoon was a formative experience for P6's individual mental model of driving ("in the city I feel like you learn how to do everything"). In

the city, P6 encounters traffic, pedestrians, and other elements unique to city driving that has made her a more cautious driver; it seems that P6 is daunted by the greater complexity in driving in Saskatoon (e.g., parallel parking). P6's cautious driving is further encouraged when driving with passengers (e.g., her sister) as she feels responsible for their safety. This style of driving is reinforced as appropriate by the fact that P6 has never been pulled over by police or ticketed, indicating to her that she is a safe driver ("just going to keep doing what I'm doing. It must be good").

Cultural model of urban driving. Relatively little attention was given to the cultural model of urban driving in P6's narrative, perhaps due to living in the city for only a short time (which is plausible given her young age, if she moved to the city only for university). However, from what is available it seems that P5 sees this model as supportive of safe driving. City drivers, according to P6, are knowledgeable and confident in their driving ("everyone thinks they know how to drive like 100% and they're very confident with their driving") – they can (and do) adjust their driving to traffic, pedestrians, and other urban elements. Driving safety is further supported by increased traffic rules (e.g., traffic lights) and enforcement (e.g., police presence) in urban areas, compared to rural. Additionally, great attention and care is needed to navigate urban roads, which P6 feels she has achieved since moving to the city ("I'm way more aware [in the city]").

Sources of cultural model transmission. Despite the cultural model of rural driving being perceived by P6 as primarily unsafe, her family effectively provides evidence for there being a portion of safe driving practices in this model too. P6's siblings are positive influences, conveying to P6 the safe aspects of the cultural model of rural driving, such as the appropriateness of driving within the speed limit ("[siblings] always give me heck if they thought I was driving too fast ... actually makes a difference when ... driving"). P6's parents also set

similar encouraging driving examples (“never go over the speed or do anything to scare me”). Though there is “nagging” from parents for P6 to drive safer and better, she is ultimately appreciative of it. The impact that family has on P6’s MM development is further evidenced in parents being a key component of the modes of model transmission that P6 identifies as being most effective for her (overt verbal communication and parenting style).

Having somewhat less but still a moderate impact, friends emphasize to P6 the unsafe driving practices characteristic of the cultural model of rural driving (e.g., speeding, swerving, and fishtailing). P6 rejects driving practices perceived as overly reckless out of fear for her own and, especially, others’ safety (“I’m going to drive more cautiously myself because I don’t want to put other people in danger”). This rejection of the cultural model of rural driving is also a result of stories about P6’s peers getting into driving incidents for senseless practices (e.g., driving while overly tired). It is possible that the resistance against the cultural model of unsafe rural driving is in part due to P6’s individual model of driving, predominantly expressive of safe driving practices.

Relatively little information is provided on the remaining two sources of model transmission – driving authority and other drivers – but some conclusions can still be drawn. What is evident on driving authority is that P6’s driver’s education instructor relayed to P6 that shoulder checking is necessary when driving, which P6 considers important to this day. As well, driving authorities have not instigated negative consequences for P6’s driving, indicating to her that her driving is acceptable in both rural and urban cultural models. What is evident on other drivers is that they provide P6 with examples of rural and urban cultural models of driving. The cultural model of urban driving is better learned from other drivers because of higher traffic volume in the city. Correspondingly, low traffic volume in rural areas makes it difficult to learn

the full range of driving techniques available to P6 (“in my [driver’s] exam [in rural Saskatchewan], the parallel parking, it really wasn’t anything like it is Saskatoon”).

Modes of cultural model transmission. Two modes were categorized as having a high influence on cultural model transmission for P6 (overt verbal communication and parenting style) – both of which she outwardly stated were most impactful to her. For overt verbal communication, it was particularly P6’s parents’ driving lessons that were effective (“they’re the ones who basically taught me how to drive. So, I listen to them the most”). Beyond parents’ lessons, the mode has also been impactful to P6’s MM development by hearing stories of peers’ incidents, which indicate how hazardous rural driving can be, convincing P6 to drive more cautiously. As well, siblings hassle P6 for driving too fast, which impacts her driving by signalling it is an unacceptable rural driving behaviour. Similarly, P6’s driver’s education instructor communicated to her that safe driving practices were required for rural driving, which has left a lasting impact on her practices (“I still can hear her- my drivers ed instructor – in my head sometimes”).

Parenting style, the other high-impact mode of model communication, is experienced by P6 through rules and trust. Parents have set rules for P6, telling her what she should and should not do while driving. These rules stick with P6 while driving (“I’ll be driving and still have their voice in my head like, ‘I should not turn my corners too fast’”). As well, parents trust P6 to drive safely, yet often tell her how to further improve – to the point that P6 perceives it as nagging (“constantly nagging me about things”). However, P6 also indicates that this “nagging” is “a good thing”, though she does not elaborate on how exactly. Based on her narrative, it seems that the trust, rules, and suggestions that parents provide P6 with reveal to her some particular facets

of the cultural model of rural driving (e.g., controlled and defensive driving is required) and that they have a strong impact on her developing her MM of driving.

Observation and modeling have been moderately strong transmitters of cultural models of driving for P6. Seeing friends engage in risky driving informs P6 of the cultural model of rural driving and encourages her to do so as well (“it’s okay if I’m a little bit over the speed limit because my friends do it all the time”). However, there is a limit to this effect as P6 will not adopt her friends’ riskier behaviours (e.g., swerving or fishtailing) because of the negative affect it induces in her (“[friends] drive pretty dangerously at times ... I just don’t want to be like that because it scares me”). Almost being in incidents while her friend is driving has illustrated the danger inherent in rural driving, discouraging her from carrying out similar behaviours. P6 is more amenable to the safe driving example set by her parents (e.g., not speeding and being ticketed just once if at all), demonstrating a safer side of rural driving.

Punishment and monitoring both appear to be moderate conveyors of cultural models of driving. For punishment, the presence/absence of traffic regulation (e.g., lights or police officers) indicates to P6 driving expectations for both rural and urban areas. For example, higher regulation in urban areas (more traffic lights and police officers) suggests that the cultural model of urban driving is intolerant of reckless driving practices. From personal experience, P6 has not encountered legal reprimand for driving violations, suggesting to her that her driving is in line with legal expectations in both rural and urban areas (“just going to keep doing what I’m doing. It must be good”). Likewise, family members receiving just one, if any, traffic tickets demonstrates that such driving is appropriate within rural areas.

Monitoring, particularly, from P6’s parents, imparts knowledge of the cultural model of rural driving. Specifically, P6’s parents are high-monitoring when in the vehicle with her, which

seems to enforce the large responsibility of driving and driving safety. Although P6 can be annoyed by this monitoring, she sees it as “a good thing” and appears to embrace her parents’ message. A more ambiguous finding is that when passengers (e.g., sister and sister’s friends) are not monitoring her driving, P6 still acts with caution, feeling responsible for the lives of her passengers. This finding may suggest that monitoring is not necessary for P6 to embrace cautious driving, but alternatively could indicate that this goal has already been instilled within P6 at this point via monitoring.

Within-Case Analysis: Participant Seven (P7)

Participant information.

Participant ID code: 7173

Interviewers: Evan Poncelet, Maria Cruz

Date: February 9, 2018

Duration: 40 minutes

Interview location: University of Saskatchewan campus

Participant age: 18 years

Participant sex: female

Area participant raised in (rural/Saskatoon/other urban/other): rural

Area participant currently living in (rural/Saskatoon/other urban/other): Saskatoon

Is driving part of participant’s job? No

Average hours participant drives per week: 0 (does not drive during the average week)

MDSI (driving style) score: 25 ($M = 23.5$, $SD = 11.6$; max. possible score = ± 48 ; positive score = safer driving)

DRPS (driving risk perception) score: 21 ($M = 17.4$, $SD = 6.9$; max. possible score = ± 30 ; positive score = safer driving)

ATDS (attitude toward driving) score: 15 ($M = 15.9$; $SD = 13.5$; max. possible score = ± 48 ; positive score = safer driving)

Within-Case Analysis Summary

Cultural model of rural driving. The cultural model of rural driving is seen by P7 as centred around socially acceptable drinking and drunk driving. Drunk driving is commonplace and acceptable even among parents (“they would just get their kid to blow in [the breathalyzer]”). P7 sees the widespread indifference toward drunk driving as coming from unavailable safe alternatives (e.g., taxis), drinking culture in general (e.g., the widespread

engagement in drinking, peer pressure), and a lack of negative repercussions for drunk driving practices. In fact, receiving a DUI is almost a mark of achievement among P7's peers. This tolerance for drunk driving – and drinking in general – is geared mostly toward males; females are typically seen as designated drivers. Breaking traffic laws beyond impaired driving (e.g., passenger capacity) is seen as acceptable, even by parents and police, given it is the “lesser of two evils” (i.e., drunk driving).

Individual mental model of driving. It appears that a strong individual model of driving has yet to be established for P7. Although she has gained driving experience through driver's education in rural Saskatchewan, it is insufficient for P7 to confidently drive in cities the size of Saskatoon, where she has received minimal driver's experience (“barely even experienced red lights”). Instead, confident driving is confined only to P7's rural and highway driving. Beyond inadequate driver's training, P7's nervousness and perceived inexperience in city driving appears to stem from her parents who she states are not skilled enough to teach driving and, in the case of her mother, hampers her driving by outwardly expressing nervousness when driving in the city. In rural areas, P7 tends to avoid unsafe driving practices (also reflected in her questionnaire scores), as well as giving into peer pressure, but has exceeded passenger capacity to prevent others from driving drunk (“okay of these two situations, putting an extra person in my car or having them drive home drunk”). P7's resistance to peer pressure could be aided by drinking and driving gender norms that she has identified, where males are typically the drinkers and unsafe drivers; females the designated drivers.

Cultural model of urban driving. P7 provides minimal direct information on the cultural model of urban driving, potentially because she dislikes and avoids driving in the city, preventing her from establishing a discernable private cultural model of urban driving. What can

be seen though, is that P7's private cultural model of driving is one that instils nervousness in her, partly from watching her mother nervously drive ("mom's] an even more nervous driver ... in the city ... and I think that really is where my driving anxiety comes from").

Sources of cultural model transmission. Friends and peers are cited by P7 as the most influential source of cultural model transmission, helping to establish her private cultural models of driving. From observing and interacting with her friends and peers, P7 sees that drinking and drunk driving are both socially justifiable actions. P7 does however resist passively adopting her friends' and peers' driving practices via her individual model of driving.

The remaining sources of cultural model transmission bear a moderate impact for P7. Starting with family, P7's parents have a moderate impact on her cultural model of driving acquisition, fluctuating by mode. Particularly, P7's parents – with trust, warmth, and lenient rules – inform her private cultural model of rural driving via parenting style. This model is also strongly relayed by the loss of family ("I've had two cousins who have passed away from car crashes ... It's really eye-opening of what can happen"). However, parents' influence is minimal when they utilize overt verbal communication – teaching P7 how to drive or offering advice – because P7 perceives them to be poor drivers.

Cultural models of driving are conveyed to P7 from driving authorities – primarily law enforcement and driver's education instructors. Though she has not had personal experience with police officers, P7 has learned from seeing others' experience with police that reckless driving will not go unpunished. The same message is learned from driving instructors ("I failed twice for doing it, so I better learn my lesson"). As for other drivers, members of P7's rural community have quite effectively contributed to her understanding of the cultural model of rural driving. Seeing the widespread pressure for others her age to drink and drive drunk adds to this model

being one of unsafe driving. Parents in the community further add to this model by exemplifying that disobeying traffic laws is okay (though in some cases it is well-meaning, such as with surpassing maximum passenger capacity to prevent others' drunk driving). Overall though, these other drivers show that reckless driving will be followed with little to no negative social or legal repercussions.

Modes of cultural model transmission. The most influential modes of cultural model transmission for P7 are observation and modeling and punishment. Observation and modeling is outwardly identified by P7 as the mode of cultural model transmission with the greatest influence. Most impactful is when P7 observes friends, whose actions have persuaded her that shoulder-checking is unnecessary. Seeing others punished for driving offences (e.g., being ticketed) also affects P7's driving. P7 frequently sees her peers drive drunk and that this act is social accepted, effectively transmitting to her the cultural model of rural driving. Similarly, P7's MM is developed by observing the driving behaviours of friends' parents (e.g., exceeding passenger limit) and gender norms of drinking and drunk driving (e.g., males are reckless; females are law-abiding designated drivers). Less impactful is observing impersonal situations, such as videos in driver's education.

The second of the two most influential modes, punishment is a strong transmitter of cultural models of driving for P7 through strongly emotional events, vicarious learning, and an absence of punishment for certain actions. First, the emotional and mental punishment of having family pass away is a powerful indicator of cultural models ("it's really eye-opening of what can happen"). Such punishment is also evident with lesser but still impactful experiences like being a passenger when a friend hit a deer ("I guess that was kind of a punishment for not paying attention ... after that happened I am definitely more conscientious of my surroundings").

Second, P7 has seen others and herself be guilted into being designated driver for others, reinforcing the precariousness of rural driving culture. Third, a *lack* of legal and social punishment teaches that some driving practices are okay – whether benevolent (e.g., driving with too many people in the car if it's preventing drunk driving) or reckless (e.g., drinking and driving). However, having parents or the traffic system withhold privilege conveys to P7 a public intolerance for reckless driving (e.g., “failed my drivers test twice for not doing it so now I always make a point to do it”). Lastly, others placing blame on circumstance for incidents suggests to P7 that rural driving is dangerous, either from unpredictability (circumstance) or an optimistic bias (other drivers). All things considered, P7 mostly abides by traffic rules, though she does exceed maximum passenger limit to prevent drunk driving (which is in line with the cultural model of rural driving).

A moderately successful mode of transmission, overt verbal communication is effective through casual conversations (e.g., hearing that others do not take driving safety seriously), and is especially effective when stakes are high, such as with threats (e.g., “I’m going to drive home drunk and if I get in a car crash and die that's your fault”) or personal loss (e.g., talking about cousins who died in traffic incidents). However, the effectiveness of this mode for P7 is dampened by parents who are poor drivers (making for ineffective teaching) and – similar to observation and modeling – impersonal scenarios, such as lectures in driver’s education. Turning to another mode of moderate impact, parenting style, P7’s parents seem mostly permissive of her driving, though they were perhaps more authoritative for her brother. For P7, few driving-related rules were set while growing up – she could take her parents’ vehicle when she wanted, did not have a curfew, and was allowed to exceed her passenger limit when leisurely driving. However, P7 was aware that any gross negligence would result in her freedom being revoked. These

actions seem to have helped P7 understand the cultural model of rural driving where traffic laws are flexible, but large transgressions are not tolerated by parents (though this latter finding is challenged by knowledge of at least one peer's parent driving drunk).

P7's private cultural models of driving are informed by monitoring, but primarily through friends whom she trusts. Conversely, P7's cultural models are not well impacted by monitoring from her parents, possibly because she perceives them to be poor drivers (e.g., her mom's nervousness "rubs off" on her). Thus, monitoring is a moderately influential mode of transmission. Lastly, scarce information is given regarding how P7 sees print educational material as transmitting cultural models of driving. What little information is given suggests this is an ineffective model (e.g., hard to remember her training booklet when in the moment of driving), paling in comparison to experiential learning.

Appendix F: Within-case Matrices

For the *Analysis* column of matrices, *Keywords* refers to words used by participants to describe their perception of each construct. *Fostering* and *Hampering Factors* are factors described by participants as facilitating or impeding the strength of each construct (for mental and cultural models) or transmission of cultural models of driving (for modes and sources of cultural model transmission). *Relationships* denote relationships of each construct with other constructs, where an arrow (“←” or “→”) denotes causal positive relationship, “-” indicates a negative causal relationship (“←(-)” or “→(-)”), and “//” indicates that the nature of the relationship is unknown (“←(//)” or “→(//)”). *Conclusion* provides the degree to which a participant experiences each construct (high, moderate, or low; where applicable), where applicable, and summary of analysis.

Participant 1 (4536)		
Construct	Transcript Excerpts	Analysis
<p>Model – Cultural Model of Rural Driving</p>	<p>And a lot of growing up rural- I was exposed to a lot of reckless driving when I was younger. Like before I started drivers training. So, lots of driving down dirt roads, in fields, driving pretty fast on highways because there are no cops really in rural Saskatchewan. So very low probability of getting pulled over.</p> <p>It's just either disregard or lack of knowledge for driving etiquette- like simply checking the other lane before changing and pulling out in front people- just traffic signs in general.</p> <p>Yeah like I don't have to worry as much about people driving at ridiculous speeds or cutting me off constantly because that happens at home a lot even still.</p> <p>[Drinking and driving] is taken as kind of a norm both in the city and at home I feel.</p> <p>Also, friends back home- again there is a lot of reckless driving and just going fast, tearing up the fields, in the boonies.</p> <p>So, some of my friends back home ... do drink and drive regularly. And sometimes it's not just a couple of drinks; it's way too much. And they treat it very casually and they do pressure others to do it ... There's no cab service back home or anything. So, either you have a DD, or you're driving drunk and they will almost always choose the latter.</p> <p>Like if you want to go have drinks or something, I'll be the first to say "who's DDing" and they'll just say like "nobody".</p> <p>I think it's part of almost Saskatchewan culture. It's just kind of something that people do. That's at least how- that's how I grew up with it. Most of the people just did and it was seen as okay to just have a beer in the cupholder of your car while you drive to the lake or something. It was just something that I grew up around.</p> <p>That's really a question of how party settings are different in rural Saskatchewan. Like there's a lot of pit parties or just parties at someone's farm and stuff like that. And a lot of people will either just go themselves or their parents might not allow them to go because they are still 16, so the they'll sneak out themselves, get drunk, and then drive home. So, it's just- driving is just a means for them to get to a party and have fun and get back. They don't care. You don't really think about the safety</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - exposed to a lot of reckless driving - driving pretty fast on highways - no cops ... low probability of getting pulled over - disregard or lack of knowledge for driving etiquette - people driving at ridiculous speeds ... at home - [drinking and driving] is taken as kind of a norm - going fast, tearing up the fields - drink and drive regularly - they treat it very casually and they do pressure others to do it - there's no cab service ... either you have a DD, or you're driving drunk - it's part of almost Saskatchewan culture. It's just something that I grew up around - driving is just a means for them to get to a party and have fun and get back ... you don't really think about the safety components - the drunk driving part doesn't really matter to them - they will stop [driving drunk] but I don't think it will have any lasting behavioural effects - take-it-for-granted drinking and driving doctrine back home - I'll be the first to say "who's DDing" and they'll just say like "nobody" <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Rural → Overt Verbal Communication → MM Driving - CM Rural → (-) Punishment → MM Driving - CM Rural → Monitoring → MM Driving - CM Rural → Family → MM Driving - CM Rural → Friends → MM Driving - CM Rural → Driving Authority → MM Driving - CM Rural → (-) Driving Authority → MM Driving

	<p>components, they just think about getting to the party to keep up appearances. And to be able to attend I guess. And yeah, the drunk driving part doesn't really matter to them.</p> <p>They will stop. If I'm serious enough [when telling friends to stop driving recklessly], they will stop. But I don't think it will have any lasting behavioural effects. I think they'll definitely do it again whether I'm there or not. Unless someone says stop while they're doing it, they will still do it. Because it's the same thing with when they decide to drink and drive. I always make it known that I disapprove or don't like it- like I'll even offer to drive, but they will still do it regardless. Yeah, it's kind of a difficult situation.</p> <p>That take-it-for-granted drinking and driving doctrine back home.</p>	<p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - observing and hearing of others' unsafe driving behaviours, especially peers and friends - lack of legal repercussions for unsafe driving (and low police presence) - inadequate driver's education - perceived lack of safe driving options (e.g., taxi, DD) - party culture in rural Saskatchewan <p><i>Conclusion:</i> The participant's perception of a cultural model of rural driving is well articulated; he has a firm conceptualization of what the public cultural mode is. Within this cultural model, drunk driving is engrained as a norm ("take-it-for-granted drinking and driving doctrine back home"). As such, drunk driving is treated casually and is even pressured on others in P1's rural community. Drunk driving is also just a means to an end, where people "have" to drive to their social gatherings and driving home drunk is just a consequence of that, one that is perceived by P1's peers as normal. Furthermore, P1's peers consider the lack of taxi service to necessitate drunk driving. That is, other alternative options to drunk driving such as assigning a designated driver, are not seen as realistic options. The fact that P1 volunteers to be a designated driver is uncommon in his rural community. Unsafe practices are further entrenched due to a lack of police presence to prevent their occurrence. Members of this rural community commit reckless driving behaviours (drunk driving, speeding, and "tearing up fields"), sometimes consciously but at other times unconsciously ("disregard or lack of knowledge for driving etiquette").</p>
<p>Model – Individual Model of Driving</p>	<p>I'm still really cautious in the city because it was a big adjustment going from small town to city. Like just having more than one lane on the driver side of the road. So, I was always really cautious when changing lanes and going from the freeway to a merging lane. And just being very aware of other cars around me.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - really cautious - big adjustment - having more than one lane ... and just being very aware of other cars around me

	<p>So, I've made some adjustments to account for [occasional reckless drivers in the city] I guess, and it's made it more relaxed even though there are more people on the road I find.</p> <p>If it's snowing- if there's any snow or rain, my mother will not use the cruise control for whatever reason. She's just very paranoid. With me and my brothers she's just very strict about not turning cruise control on when driving in the rain or snow. I still don't know why she's so strict on that. I'll do it anyway and I just have a bit of a twinge of guilt like "she wouldn't approve of this". But I do it anyway, yeah. So, if I do transgress the rules that they set then I will feel that mental twinge of guilt, but it usually doesn't stop me from doing that I guess.</p> <p>But I still haven't been pulled over. I haven't been involved in any driving related incidents. So, my record is clean in that respect.</p> <p>Yeah, [a minor driving offence] happens. Or sometimes not stopping at a stop sign if it's 2 AM and we're in Melfort. But no, usually it's the reverse, usually I'm the one criticizing my friends driving.</p> <p>I think that's my biggest motivator is kind of resisting that take-it-for-granted drinking and driving doctrine back home. Because I don't think it's very smart and I've seen why it's not very smart.</p> <p>Having friends in the car though, they will tell me to go faster or they will see that I'm going 110 and will be like "why are you going so slow" and "you can go faster". And sometimes I will, sometimes I won't, depending on how the roads are.</p>	<ul style="list-style-type: none"> - made some occasional adjustments - if I do transgress the rules that they set then I will feel that ... guilt, but it usually doesn't stop me - haven't been involved in any ... incidents - sometimes not stopping at a stop sign if it's 2 AM and we're in Melfort - my biggest motivator is kind of resisting that take-it-for-granted drinking and driving doctrine back home - sometimes I will, sometimes I won't, depending on how the roads are <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - IM → (-) Observation and Modeling - IM → (-) Overt Verbal Communication - IM → (-) Parenting Style - IM → (-) Punishment - IM → (-) Monitoring - IM → (-) Family - IM → (-) Friends - IM → (-) Other Drivers <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - change of residence and regular driving setting (rural to urban) - lack of negative repercussions for personal driving practices - personal motivation to resist unsafe cultural model of rural driving <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - guilt of disobeying parents - potentially, pressure to adopt peers' unsafe driving practices <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - commits minor transgressions (e.g., not stopping at stop sign), but overall acts safely
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		<p><i>Conclusion:</i> A strong individual model of driving has been developed by P1, composed primarily of safe driving practices (e.g., defensive driving, not speeding, and trying to convince others to drive more safely). A self-described cautious driver, P1 has likely established this accolade in part from his history free of incidents or tickets, signalling that he is a safe driver. As well, P1's cautious driving comes from his personal motivation to resist passively adopting the unsafe driving behaviours prevalent in his rural community ("my biggest motivator is kind of resisting that take-it-for-granted drinking and driving doctrine back home"). Yet, P1 is willing to transgress traffic laws or rules set by his parents when he perceives them to be low-risk (e.g., "sometimes not stopping at a stop sign if it's 2 AM and we're in Melfort"). Moving to the city posed a large adjustment to P1's MM of driving, allowing him to accrue driving experience in the presence of other vehicles, demanding greater attention than what he was used to back home. This experience likely also plays a part in establishing a fairly safe individual model of driving. Though he does express some difficulty in resisting passively replicating close others' unsafe driving practices ("if I do transgress the rules that [parents] set then I will feel that ... guilt"), P1 tends to avoid perpetuating much of the cultural model of rural driving that he grew up around.</p>
<p>Model – Cultural Model of Urban Driving</p>	<p>I guess I found in the city it's a lot easier to drive. Feel like people have a better sense of the road laws here than they do in rural areas.</p> <p>The rules are clear and people tend to follow them more.</p> <p>Yeah like I don't have to worry as much about people driving at ridiculous speeds or cutting me off constantly because that happens at home a lot even still.</p> <p>[Drinking and driving] is taken as kind of a norm both in the city and at home I feel.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - easier to drive - better sense of the road laws - the rules are clear and people tend to follow them more - don't have to worry as much about people driving at ridiculous speeds or cutting me off - [drinking and driving] is taken as kind of a norm - they drive more cautiously ... more police on the highway and in the city to catch them

	<p>My friends will come to the city and they will say how they drive more cautiously because there are more police on the highway and in the city to catch them speeding or doing something stupid. So, they will be a lot more tame I guess. They won't use their cell phones and won't drive recklessly and they kind of reinforce that on one another. Like my friend will tell my other friend "calm down your driving, we're in the city, like you should be paying attention" and stuff like that. So, I feel like when it comes to driving in the city, the conversation around driving is a lot more strict. Like the rules- it's like the rules actually apply in the city, whereas they are casually enforced back home. So that's kind of how the attitude of driving changes from rural to city if you're from a rural setting.</p> <p>E: So, it sounds maybe like it's got a lot more to do with enforcement and not so much with like wanting to drive more safely; it's more that they have to?</p> <p>P: Yeah. Because if [my friends] could they would. Or if there wasn't that idea that the rules in the city are stricter than in rural settings then they would drive like they do back home.</p>	<ul style="list-style-type: none"> - they won't use their cell phones and won't drive recklessly - "calm down your driving, we're in the city" - the rules actually apply in the city - if [my friends] could they would <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Urban → Observation and Modeling → MM Driving - CM Urban → Overt Verbal Communication → MM Driving - CM Urban → Punishment → MM Driving - CM Urban → Friends → MM Driving - CM Urban → Driving Authority → MM Driving - CM Urban → Other Drivers → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - clarity and understanding of road laws - police vigilance and presence - others' behaviours and remarks while city driving <p><i>Conclusion:</i> P1 has a good understanding of the public cultural model of urban driving. This cultural model is seen as safer than rural driving as drivers comprehend and obey traffic laws, which results in P1 encountering less reckless drivers ("don't have to worry as much about people driving at ridiculous speeds or cutting me off"). This comparatively safe driving appears to largely result from greater likelihood of legal punishment for unsafe driving (enforced road laws, police presence, etc.) and relatedly, greater understanding and adherence to traffic laws (e.g., driving within speed limits and without using a mobile device). For example, P1's friends only drive safer (i.e., speed less, drive cautiously, and do not use mobile devices) in the city because of legal presence rather than self-determination ("if [my friends] could they would"). Nonetheless, unsafe driving practices still exist in</p>
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		this model (e.g., drunk driving) – just perhaps to a lesser degree than in the rural model.
Mode – Observation and Modeling	<p>I was exposed to a lot of reckless driving when I was younger. Like before I started drivers training. So, lots of driving down dirt roads, in fields, driving pretty fast on highways.</p> <p>I: Right, so you had already seen people recklessly driving- P: Yeah, I guess I had my fill by then, so I didn't need to do it myself.</p> <p>I have had family and friends and just people that I know drink and drive. It's taken as kind of a norm both in the city and at home I feel. Just to go out have some drinks and drive yourself home afterwards. And that's kind of- just watching it happen kind of gives me a pang of "don't do that". It's a bad idea, it just feels wrong. So that helps me just stay away from driving like that or from deciding to drink and drive.</p> <p>Also, friends back home- again there is a lot of reckless driving and just going fast, tearing up the fields, in the boonies. That's something that I just haven't had an affinity towards either because I look at it as stupid or don't feel like driving fast. And I have seen it result in getting pulled over and giving tickets issued, or even accidents.</p> <p>If it's snowing- if there's any snow or rain, my mother will not use the cruise control for whatever reason. She's just very paranoid. With me and my brothers she's just very strict about not turning cruise control on when driving in the rain or snow. I still don't know why she's so strict on that. I'll do it anyway and I just have a bit of a twinge of guilt like "she wouldn't approve of this". But I do it anyway, yeah. So, if I do transgress the rules that they set then I will feel that mental twinge of guilt, but it usually doesn't stop me from doing that I guess.</p> <p>I think it's part of almost Saskatchewan culture. It's just kind of something that people do. That's at least how- that's how I grew up with it. Most of the people just did and it was seen as okay to just have a beer in the cupholder of your car while you drive to the lake or something. It was just something that I grew up around.</p> <p>E: Do you think there's one that impacts your driving the most out of those? P: I think behaviour of others probably. E: So, leading by example and that sort of stuff? P: Yeah. Examples of what to do and what not to do. There's plenty of those. So, I think that's my biggest motivator is kind of resisting that take-it-for-granted</p>	<p>Key words:</p> <ul style="list-style-type: none"> - exposed to a lot of reckless driving when I was younger - had already seen people recklessly driving - just watching it happen kind of gives me a pang of "don't do that" - going fast, tearing up the fields - I look at it as stupid or don't feel like driving fast - seen it result in getting pulled over and giving tickets issued, or even accidents - my mother will not use the cruise control - I'll do it anyway and I just have a bit of a twinge of guilt - people just did and it was seen as okay - examples of what to do and what not to do - I think that's my biggest motivator is kind of resisting that take-it-for-granted drinking and driving doctrine back home - definitely the most important one for me <p>Relationships:</p> <ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - IM ← Observation and Modeling - CM Urban → Observation and Modeling → MM Driving <p>Fostered by:</p> <ul style="list-style-type: none"> - rural childhood experiences - perceiving others' driving behaviours to be bad examples <p>Other comments:</p> <ul style="list-style-type: none"> - most important mode of transmission <p>Concluded level: HIGH. Of all the modes of cultural model transmission – observation and modeling, overt verbal communication, parenting style,</p>

	<p>drinking and driving doctrine back home. Because I don't think it's very smart and I've seen why it's not very smart. So that's definitely the most important one.</p>	<p>punishment, monitoring, and print educational materials – P1 identifies observation and modeling as the most important to developing his private cultural models of driving. From childhood, P1 has been exposed to the reckless driving of others, which he views as senseless and a demonstration of how <i>not</i> to drive. This opinion may be a product of P1 seeing negative repercussions for others' reckless driving (e.g., being ticketed, getting in incidents). As well, P1 has seen his mother commit irrational driving behaviours that he opts not to enact in his own driving (though he feels some guilt in behaving in a way that his mother would not approve of). Thus, it is interesting that observation has a clear and substantial impact on P1's driving, but he models few of these observed behaviours.</p>
<p>Mode – Overt Verbal Communication</p>	<p>I guess it started with driver's education. They always tell you to drive defensively, not aggressively.</p> <p>[friends from rural SK] do pressure others to [drink and drive]. Like if you want to go have drinks or something, I'll be the first to say "who's DDing" and they'll just say like "nobody".</p> <p>It's upsetting because I refuse to [drink and drive] but there's nothing that I can say that would change [a friend's] mind about it, which also sucks. So, there are moments where you question, "like would one time matter?" But then you always come back to "it only takes one time to mess up and then you're dead". So, I usually- it does affect how I think about it, but I don't think it will affect my decision or my ultimate stance toward driving like that.</p> <p>So, [drinking and driving] is just really casual and it's regardless of things like MADD and SADD and all these initiatives to prevent drunk driving. It's just- they don't override the whole ritual that people seem to have adopted.</p> <p>[Friends] won't use their cell phones and won't drive recklessly [when they're in the city] and they kind of reinforce that on one another. Like my friend will tell my other friend "calm down your driving, we're in the city, like you should be paying attention" and stuff like that.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - it started with driver's education ... tell you to drive defensively - I'll be the first to say "who's DDing" and they'll just say like "nobody" - there's nothing that I can say that would change [a friend's] mind - it does affect how I think about it, but I don't think it will affect my decision - all these initiatives to prevent drunk driving ... they don't override the whole ritual that people seem to have adopted - they kind of reinforce that on one another - If I'm serious enough [when telling friends to stop driving recklessly], they will stop. But I don't think it will have any lasting behavioural effects <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Overt Verbal Communication → MM Driving - IM ← Overt Verbal Communication - CM Urban → Overt Verbal Communication → MM Driving

	<p>They will stop. If I'm serious enough [when telling friends to stop driving recklessly], they will stop. But I don't think it will have any lasting behavioural effects. I think they'll definitely do it again whether I'm there or not. Unless someone says stop while they're doing it, they will still do it. Because it's the same thing with when they decide to drink and drive. I always make it known that I disapprove or don't like it- like I'll even offer to drive, but they will still do it regardless. Yeah, it's kind of a difficult situation.</p>	<p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - formal driver's education - peer pressure <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - friends ignoring verbal advice on driving - "ritual" of drinking and driving (engrained cultural norm) <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - can create short-term behavioural change, but not long-term <p><i>Concluded level:</i> MODERATE. Overt verbal communication has aided in transmitting to P1 cultural models of driving, with a mix of both safe and unsafe practices. Instruction from P1's driver's education teacher has taught him defensive driving practices; however, it seems many of P1's rural community members did not internalize this information the way that he did. Conversation between P1 and his peers is dominated by their taken-for-granted drunk driving practices, which they mutually reinforce on each other. Immersed in this community, P1 does feel pressured to engage in similar driving practices, but ultimately resists doing so ("it does affect how I think about it, but I don't think it will affect my decision"). Likewise, P1's pleas for others to drive safely are sometimes adhered to in the short-term but are often ignored and do not create long-term behavioural change.</p>
<p>Mode – Parenting Style (Regarding Driving)</p>	<p>[My parents] kind of enforce some things as absolutes, like you must do, and others they just leave me to decide for myself to do it at my own risk I guess. Like they are really against drunk driving obviously and cell phones and speeding. And then everything else they kind of are less assertive on I guess.</p> <p>If it's snowing- if there's any snow or rain, my mother will not use the cruise control for whatever reason. She's just very paranoid. With me and my brothers she's just very strict about not turning cruise control on when driving in the rain or snow. I still don't know why she's so strict on that. I'll do it anyway and I just</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - enforce some things as absolutes ... others they just leave me to decide - really against drunk driving ... cell phones and speeding - very strict about not turning cruise control on - I'll do it anyway and I just have a bit of a twinge of guilt - it usually doesn't stop me from doing that

	<p>have a bit of a twinge of guilt like "she wouldn't approve of this". But I do it anyway, yeah. So, if I do transgress the rules that they set then I will feel that mental twinge of guilt, but it usually doesn't stop me from doing that I guess.</p>	<p><i>Relationships:</i> - IM → (-) Parenting Style</p> <p><i>Fostered by:</i> - respect for parents</p> <p><i>Hampered by:</i> - low adherence to parental rules</p> <p><i>Concluded level:</i> LOW. Little data is available on P1's parents' parenting style, but what is available indicates it has a low impact on conveying cultural models. While rules are set by P1's parents against unsafe driving practices (e.g., drunk driving, speeding, mobile phone use), it seems that he has been against such driving from a young age, before these driving rules were set. Other rules are seen by P1 as illogical (not using cruise control), which P1 ignores with a little guilt. Otherwise, P1's parents provide him some freedom in deciding how to drive, though it is not clear exactly how this impacts his cultural model of rural driving.</p>
<p>Mode – Punishment</p>	<p>There are no cops really in rural Saskatchewan. So very low probability of getting pulled over.</p> <p>Watching people mess up and make mistakes just kind of reinforces the idea that I should be driving responsibly. Because I don't want that to happen to me obviously.</p> <p>My friends will come to the city and they will say how they drive more cautiously because there are more police on the highway and in the city to catch them speeding or doing something stupid.</p> <p>E: So, it sounds maybe like it's got a lot more to do with enforcement and not so much with like wanting to drive more safely; it's more that they have to? P: Yeah. Because if [my friends] could they would. Or if there wasn't that idea that the rules in the city are stricter than in rural settings then they would drive like they do back home.</p>	<p><i>Key words:</i> - very low probability of getting pulled over - watching people mess up ... reinforces ... driving responsibly - don't want that to happen to me - drive more cautiously because there are more police - more to do with enforcement [than] ... wanting to drive more safely - rules in the city are stricter - not stopping at a stop sign if it's 2 AM [in rural settings]</p> <p><i>Relationships:</i> - CM Rural → (-) Punishment → MM Driving - IM → (-) Punishment - CM Urban → Punishment → MM Driving</p>

	<p>Yeah, [a minor driving offence] happens. Or sometimes not stopping at a stop sign if it's 2 AM and we're in Melfort. But no, usually it's the reverse, usually I'm the one criticizing my friends driving.</p>	<p>- Punishment ↔ Driving Authority</p> <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - seeing negative repercussions of others transgressing traffic laws - police officer presence (or lack of in rural settings) - perceived stricter traffic rules for city driving <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - lack of police officer presence (in rural settings) - lack of perceived importance of driving safety <p><i>Concluded level:</i> HIGH. Driving-related punishment has been a strong indicator to P1 of cultural models of driving. In his rural community, P1 sees that there is a low probability of being pulled over, which some perceive as inviting unsafe driving practices. If other are punished for driving-related behaviours, P1 learns vicariously from observing this, reinforcing his safe driving practices; it is a deterrent from him driving recklessly. When there are more police present (i.e., city driving), P1 drives more cautiously, as do his rural-raised friends. However, while P1's friends only drive cautiously in police presence because of fear of legal punishment (not because they care about safety), it appears that P1 <i>does</i> value safety. Yet, P1 is willing to carry out punishable driving behaviours when he feels certain that he will not be caught or cause harm.</p>
<p>Mode – Monitoring</p>	<p>It kind of depends who I'm with. My parents, they don't really police my driving lots because I drive pretty tamely anyways. My brothers will make fun of me for not going fast enough because they go pretty fast.</p> <p>Having friends in the car though, they will tell me to go faster or they will see that I'm going 110 and will be like "why are you going so slow" and "you can go faster". And sometimes I will, sometimes I won't, depending on how the roads are.</p> <p>When [friends or family] are with me it will affect me sometimes. Sometimes I'll be like, "fine I'll go faster" and stuff like that. But if they're not with me I'll drive</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - depends who I'm with - my parents, they don't really police my driving - my brothers will make fun of me for not going fast enough - friends ... they will tell me to go faster - sometimes I will, sometimes I won't, depending on how the roads are - it will affect me sometimes - if they're not with me I'll drive to my own accord

	<p>to my own accord. I don't really think of them when driving because they're not very good examples of good drivers.</p>	<p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Monitoring → MM Driving - IM → (-) Monitoring - Monitoring ← Family - Monitoring ← Friends <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - family and friends <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - perceived safety of driving conditions <p><i>Concluded level:</i> MODERATE. Change is imparted on P1's mental model of driving through the presence of others – especially siblings and friends – while driving, so long as it fits within his perceived threshold of safe driving.</p>
Mode – Print Educational Material	NO DATA	NO DATA
Source – Family	<p>I have had family and friends and just people that I know drink and drive.</p> <p>[My parents] kind of enforce some things as absolutes, like you must do, and others they just leave me to decide for myself to do it at my own risk I guess. Like they are really against drunk driving obviously and cell phones and speeding. And then everything else they kind of are less assertive on I guess.</p> <p>If it's snowing- if there's any snow or rain, my mother will not use the cruise control for whatever reason. She's just very paranoid. With me and my brothers she's just very strict about not turning cruise control on when driving in the rain or snow. I still don't know why she's so strict on that. I'll do it anyway and I just have a bit of a twinge of guilt like "she wouldn't approve of this". But I do it anyway, yeah. So, if I do transgress the rules that they set then I will feel that mental twinge of guilt, but it usually doesn't stop me from doing that I guess.</p> <p>It kind of depends who I'm with. My parents, they don't really police my driving lots because I drive pretty tamely anyways. My brothers will make fun of me for not going fast enough because they go pretty fast.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - I have had family ... drink and drive - enforce some things as absolutes ... others they just leave me to decide - very strict about not turning cruise control on - I'll do it anyway and I just have a bit of a twinge of guilt - it usually doesn't stop me from doing that - my parents, they don't really police my driving - my brothers will make fun of me for not going fast enough - sometimes I will, sometimes I won't, depending on how the roads are - it will affect me sometimes ... sometimes I'll be like, "fine I'll go faster" - if they're not with me I'll drive to my own accord <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Family → MM Driving - IM → (-) Family

	<p>When [friends or family] are with me it will affect me sometimes. Sometimes I'll be like, "fine I'll go faster" and stuff like that. But if they're not with me I'll drive to my own accord. I don't really think of them when driving because they're not very good examples of good drivers.</p>	<p>- Family → Monitoring</p> <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - physical presence of parents or siblings <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - absence of family members' presence - perceived safety of driving conditions <p><i>Concluded level:</i> MODERATE. The physical presence of family members impacts P1's driving but does not exact long-term change or lead him to commit acts he deems overly unsafe. As well, P1's sometimes heeds advice from his family members but ignores it when he sees it as questionable (e.g., mom's admonition to not use cruise control).</p>
<p>Source – Friends and Peers</p>	<p>Also, friends back home- again there is a lot of reckless driving and just going fast, tearing up the fields, in the boonies.</p> <p>I have had family and friends and just people that I know drink and drive.</p> <p>So, I guess I have learned from a lot of other people's mistakes just to reinforce the notion that when you drive, don't rush it ... watching people mess up and make mistakes just kind of reinforces the idea that I should be driving responsibly. Because I don't want that to happen to me obviously.</p> <p>So, some of my friends back home ... do drink and drive regularly. And sometimes it's not just a couple of drinks; it's way too much. And they treat it very casually and they do pressure others to do it ... There's no cab service back home or anything. So, either you have a DD, or you're driving drunk and they will almost always choose the latter.</p> <p>It's upsetting because I refuse to [drink and drive] but there's nothing that I can say that would change [a friend's] mind about it, which also sucks. So, there are moments where you question, "like would one time matter?" But then you always come back to "it only takes one time to mess up and then you're dead". So, I usually- it does affect how I think about it, but I don't think it will affect my decision or my ultimate stance toward driving like that.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - a lot of reckless driving - drink and drive - learned from a lot of other people's mistakes - reinforces the idea that I should be driving responsibly - they do pressure others to do it - upsetting - nothing that I can say - it does affect how I think about it, but I don't think it will affect my decision - won't use their cell phones and won't drive recklessly [when they're in the city] - reinforce that on one another - driving is just a means for them to get to a party and have fun ... the drunk driving part doesn't really matter to them - unless someone says stop while they're doing it, they will still do it - they will tell me to go faster ... sometimes I will, sometimes I won't, depending on how the roads are - if they're not with me I'll drive to my own accord <p><i>Relationships:</i></p>

	<p>[Friends] won't use their cell phones and won't drive recklessly [when they're in the city] and they kind of reinforce that on one another. Like my friend will tell my other friend "calm down your driving, we're in the city, like you should be paying attention" and stuff like that.</p> <p>And a lot of people will either just go themselves or their parents might not allow them to go because they are still 16, so they'll sneak out themselves, get drunk, and then drive home. So, it's just- driving is just a means for them to get to a party and have fun and get back. They don't care. You don't really think about the safety components, they just think about getting to the party to keep up appearances. And to be able to attend I guess. And yeah, the drunk driving part doesn't really matter to them.</p> <p>They will stop. If I'm serious enough [when telling friends to stop driving recklessly], they will stop. But I don't think it will have any lasting behavioural effects. I think they'll definitely do it again whether I'm there or not. Unless someone says stop while they're doing it, they will still do it. Because it's the same thing with when they decide to drink and drive. I always make it known that I disapprove or don't like it- like I'll even offer to drive, but they will still do it regardless. Yeah, it's kind of a difficult situation.</p> <p>Having friends in the car though, they will tell me to go faster or they will see that I'm going 110 and will be like "why are you going so slow" and "you can go faster". And sometimes I will, sometimes I won't, depending on how the roads are.</p> <p>When [friends or family] are with me it will affect me sometimes. Sometimes I'll be like, "fine I'll go faster" and stuff like that. But if they're not with me I'll drive to my own accord. I don't really think of them when driving because they're not very good examples of good drivers.</p>	<ul style="list-style-type: none"> - CM Rural → Friends and Peers → MM Driving - IM → (-) Friends and Peers - CM Urban → Friends and Peers → MM Driving - Friends and Peers → Overt Verbal Communication - Friends and Peers → Monitoring <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - exemplifying what not to do (vicarious learning) - physical presence of friends <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - absence of friends' presence - perceived safety of driving conditions - negative affect <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - friends are predominantly unsafe drivers (negative influence) <p><i>Concluded level:</i> HIGH. The source most impacting P1's private cultural model development is his friends and peers, largely by permitting him to learn vicariously of the negative effects of reckless driving (e.g., drunk driving) through their mistakes. Physical presence of friends is a determining factor of whether P1 will engage in reckless driving, though he still resists such driving if it passes a particular safety limit. Furthermore, P1's negative affect resulting from friends' reckless driving (e.g., feeling upset or helpless) reinforces P1's safe driving practices.</p>
<p>Source – Driving Authority</p>	<p>I guess it started with driver's education. They always tell you to drive defensively, not aggressively.</p> <p>So, [drinking and driving] is just really casual and it's regardless of things like MADD and SADD and all these initiatives to prevent drunk driving. It's just- they don't override the whole ritual that people seem to have adopted.</p> <p>My friends will come to the city and they will say how they drive more cautiously because there are more police on the highway and in the city to catch them</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - driver's education - tell you to drive defensively - MADD and SADD - they don't override the whole ritual that people seem to have adopted - how they drive more cautiously because there are more police

	<p>speeding or doing something stupid. So, they will be a lot more tame I guess. They won't use their cell phones and won't drive recklessly.</p> <p>E: So, it sounds maybe like it's got a lot more to do with enforcement and not so much with like wanting to drive more safely; it's more that they have to?</p> <p>P: Yeah. Because if [my friends] could they would. Or if there wasn't that idea that the rules in the city are stricter than in rural settings then they would drive like they do back home.</p> <p>But I still haven't been pulled over. I haven't been involved in any driving related incidents. So, my record is clean in that respect.</p>	<ul style="list-style-type: none"> - won't use their cell phones and won't drive recklessly - it's got a lot more to do with enforcement and not so much with like wanting to drive more safely - if [my friends] could they would - I haven't been involved in any driving related incidents - my record is clean <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Driving Authority → MM Driving - CM Rural → (-) Driving Authority → MM Driving - IM ← (-) Driving Authority - CM Urban → Driving Authority → MM Driving - Driving Authority ↔ Punishment <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - formal driver's education - police officer presence - drunk driving initiatives <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - lack of police officer presence - ingrained culture of unsafe driving - lack of memorable experiences with driving authority <p><i>Concluded level:</i> MODERATE. P1 seems to mostly reflect on others' confrontations with drunk driving initiatives and police, having had few experiences of his own. However, P1 does assert that his current driving practices began with driver's training, suggesting this has been a formative source for him. Anti-drunk driving campaigns may provide compelling messages, but P1 notes that they do not override the indoctrination of drunk driving held by members of his rural community.</p>
Source – Other Drivers	Feel like people have a better sense of the road laws here than they do in rural areas. It's just either disregard or lack of knowledge for driving etiquette- like	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - better sense of the road laws - disregard or lack of knowledge for driving etiquette

(community, strangers, etc.)	<p>simply checking the other lane before changing and pulling out in front people- just traffic signs in general.</p> <p>P: The rules are clear and people tend to follow them more. E: And so that makes it easier to drive safely? P: Yeah.</p>	<ul style="list-style-type: none"> - people tend to follow them - easier to drive safely <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Urban → Other Drivers → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - (lack of) adherence to road laws <p><i>Concluded level:</i> LOW. Whether or not other drivers follow road laws influences P1's cultural model of driving, though P1 gave little emphasis to this source or other ways in which it facilitates mental model development, making only a small impression on him.</p>
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Participant 2 (3867)

Construct	Transcript Excerpts	Analysis
Model – Cultural Model of Rural Driving	<p>Yeah, my brothers and I had a lot of guy friends growing up that drove kind of recklessly.</p> <p>You're less likely to stop at a stop sign in town, whereas in the city I hope that everybody would stop when they're supposed to. People ignore the speed limit a lot more in town than in the city.</p> <p>Yeah, if there were more police in town I feel like they would be more cautious, but there often isn't.</p> <p>But it also affects where you do your driver's exam because in some places they require you to do a three-point turn, which they don't in the city. So, you have to be prepared for different things. And in town you do more grid road driving instead of city driving with more traffic.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - a lot of guy friends growing up - drove kind of recklessly - less likely to stop at a stop sign in town - people ignore the speed limit a lot more in town - if there were more police in town ... but there often isn't - in town you do more grid road driving instead of city driving with more traffic <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Rural → (-) Punishment → MM Driving - CM Rural → Friends and Peers → MM Driving - CM Rural → (-) Driving Authority → MM Driving - CM Rural → Other Drivers → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - childhood experiences - observing friends and peers, and other drivers - lack of punishment for reckless driving - lack of police officer presence <p><i>Other comments:</i></p>

		<p>- differences in driver’s exam between rural and urban settings</p> <p><i>Conclusion:</i> Though P2 did not speak much to this cultural model, it is apparent that by observing friends/peers and other drivers from an early age, P2 has internalized a cultural model of rural driving that is reckless and dismissive of road laws and rules (“people ignore the speed limit a lot more in town”). The reasoning behind others’ unsafe driving is not explained, but P2’s emphasis on grid-road driving in her rural community suggest this may be a factor with these roads being unpaved and barren. This model is further reinforced by a perceived lack of police presence and punishment for reckless driving (“if there were more police in town I feel like [drivers] would be more cautious, but there often isn’t”).</p>
<p>Model – Individual Model of Driving</p>	<p>Yeah been in a few car accidents ... but it just keeps happening and I'm not really sure why. So, I try to be more cautious and correct whatever may have caused the last incidents.</p> <p>Personally, I feel more safe driving in town because I don't like a lot of traffic.</p> <p>But it also affects where you do your driver’s exam because in some places they require you to do a three-point turn, which they don't in the city. So, you have to be prepared for different things.</p> <p>In September I rolled my car and I got a driving without due care and attention ticket and I didn't feel like I deserved it because it was on gravel. And it was loose gravel, so I just lost control ... So, that discouraged me. That made me angry because I felt like it was an unfair ticket. But I was the only person at fault, so they had to do something about it I guess... If I was on my phone I would understand, but I wasn't. I was honestly just driving ... I drive slower now on gravel because I'm terrified, but nothing else has really changed because I didn't think anything of me personally affected that accident.</p> <p>When I drive with friends I feel better in my driving because I feel like if I don't see something, they will. So, I feel safer that way.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - been in a few car accidents - it just keeps happening and I'm not really sure why - I try to be more cautious and correct whatever may have caused the last incidents - I feel more safe driving in town because I don't like a lot of traffic - you have to be prepared for different things - rolled my car - got a driving without due care and attention ticket - didn't feel like I deserved it because it was on gravel - made me angry because I felt like it was an unfair ticket - I drive slower now on gravel because I'm terrified - when I drive with friends I feel better in my driving because I feel like if I don't see something, they will ... I feel safer that way - makes you more cautious because I don't drive like that <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - IM → (-) Observation and Modeling - IM → (-) Punishment - IM ← Punishment - IM ← Monitoring - IM ← Friends and Peers - IM → (-) Driving Authority - IM ← Driving Authority

	<p>I: So, some of your friends and brothers driving recklessly has impacted how you drive? Like made you a little more cautious? P: It makes you more cautious because I don't drive like that.</p>	<p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - involvement in driving incidents - receiving driving infractions - driving experiences with friends <p><i>Conclusion:</i> P2 seems to be a fairly cautious driver, owed in part to her individual model of driving that has grown from personal experience with driving incidents and infractions. This cautious driving style seems also to be a result of placing partial blame of negative driving experiences on environmental factors. The effect of environmental factors on P2's individual model of driving is further emphasized by her desire to have friends in the vehicle to act as spotters, making her feel more at ease. P2's individual model is sufficiently developed to allow resistance against replicating the unsafe driving behaviours she observes others commit.</p>
<p>Model – Cultural Model of Urban Driving</p>	<p>I: Yeah, whereas in the city there are more police, traffic, and cameras - stuff like that? P: Yeah.</p> <p>I used to park in lot 15 [on University of Saskatchewan campus] and I would have to walk across the street to get to campus and people would run the yellow and five more people would run the red and so no one really stops there. And then people just honk at each other if you don't go right away.</p> <p>Yeah. So, I guess at a light and it just turns and you don't go fast enough, people are going to honk at you.</p> <p>So, you have to be prepared for different things. And in town you do more grid road driving instead of city driving with more traffic.</p> <p>I have my one friend and she's basically a driving instructor for me [in Saskatoon], since I'm not confident driving in the city. So, she's always bringing me confidence ... Yeah it is helpful.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - in the city there are more police, traffic, and cameras - people would run the yellow and five more people would run the red - no one really stops [at the U of S parking lot intersection] - people just honk at each other if you don't go right away - you don't go fast enough, people are going to honk at you - more traffic - my one friend ... she's basically a driving instructor for me ... she's always bringing me confidence ... it is helpful <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Urban → Observation and Modeling → MM Driving - CM Urban → Monitoring → MM Driving - CM Urban → Friends and Peers → MM Driving - CM Urban → Other Drivers → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - watching the actions other city drivers - driving on campus <p><i>Hampered by:</i></p>

		<p>- potentially, living in a small town 30 minutes outside of Saskatoon (though she regularly commutes to the University of Saskatchewan)</p> <p><i>Conclusion:</i> Relatively little is revealed by P2 on the cultural model of urban driving, perhaps because she currently lives in a rural area, despite driving primarily in urban settings (e.g., University of Saskatchewan campus). What is revealed is a private cultural model of urban driving where drivers are faced with more police, traffic and cameras than in rural areas, yet they still drive erratically or unsafely – particularly out of impatience.</p>
<p>Mode – Observation and Modeling</p>	<p>Yeah, my brothers and I had a lot of guy friends growing up that drove kind of recklessly.</p> <p>I: So, some of your friends and brothers driving recklessly has impacted how you drive? Like made you a little more cautious? P: It makes you more cautious because I don't drive like that. I: Right, an example of what not to do while driving. P: Right.</p> <p>I: Aside from that, does the behaviour of others you influence the way you drive? P: How impatient people are when they drive around you.</p> <p>Yeah. So, I guess at a light and it just turns and you don't go fast enough, people are going to honk at you.</p> <p>Some people have some road rage and impatience as well. And then some people I drive with are like really calm and confident in their abilities ... So, road rage is probably less safe and then when people are more calm and careful, that makes me feel more safe as a passenger.</p> <p>I: So, I guess it comes back to exemplifying what not to do versus what to do. P: Mhm.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - had a lot of guy friends growing up that drove kind of recklessly - makes you more cautious because I don't drive like that - an example of what not to do while driving - impatient people ... when they drive around you - you don't go fast enough, people are going to honk at you - some people have some road rage and impatience - some people I drive with are like really calm and confident in their abilities ... makes me feel more safe as a passenger - exemplifying what not to do versus what to do <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - IM → (-) Observation and Modeling - CM Urban → Observation and Modeling → MM Driving <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - perceiving others' driving behaviours to be bad examples <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - for P2, reckless drivers exemplify what <i>not</i> to do <p><i>Concluded level:</i> HIGH. With other drivers constantly in view, observing others' driving behaviours serves as a powerful mode of cultural model transmission, yet its primary effect is examples of what <i>not</i> to do. It seems P2's individual model of driving protects against passive acceptance of observed unsafe driving practices.</p>

<p>Mode – Overt Verbal Communication</p>	<p>Yeah, [verbal communication] does impact my driving. My driving instructor said that one in three people get in a car crash every- I don't know what the statistic was- and I was like "oh that's great". So that made me not want to fall into that statistic. And then my dad's always telling me like "drive slower", "do this", and whatnot, so.</p> <p>I: What about- do you hear about any stories from people in your life that makes you- like about bad drivers in the city, or good drivers in the city, or bad drivers in town? P: I don't think so.</p> <p>My dad was like "just go in there!" It did not help.</p> <p>I: Do you ever discuss with your parents driving – is it a topic that comes up? P: Yeah, sometimes I complain about other drivers to them. Like their unsafe driving. I: Yeah. How does the conversation usually play out? P: Like I'm driving in the city and then get home and say like how someone cut me off or someone passed me doing this and whatnot, usually focus on the impatience of other drivers. I: Yeah, what do your parents think? P: They're like, yeah that's how it goes and what not, don't do that... I: Yeah it sounds like they're in agreeance. P: Yeah.</p> <p>P: My dad told me to drive slower and that I should not go over 80, ever. And I was like, "oh I wasn't going that fast, but okay". But for the most part they were just glad that I was okay. And they didn't have much to say about it. I: Yeah, they didn't throw any sort of punishment on top of it? P: No I: And I would imagine that's kind of relieving, that they are not doing that? P: Yeah.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - does impact my driving - my driving instructor said that one in three people get in a car crash every- ... made me not want to fall into that statistic - [regarding hearing stories about drivers] I don't think so - sometimes I complain about other drivers to [parents] ... they're like, yeah that's how it goes and what not, don't do that - my dad told me to drive slower and that I should not go over 80, ever - they didn't have much to say about [the accident] ... kind of relieving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - statistical facts <p><i>Concluded level:</i> MODERATE. It is clear from P2's narrative that overt verbal communication effectively transmits cultural models of driving, particularly when the information is backed by statistics in a formal education setting. While other instances of communication are also evident, it is not discernable how most of these communications affected P2's MM of driving.</p>
<p>Mode – Parenting Style (Regarding Driving)</p>	<p>When driving they can be a bit controlling. I remember being a learner driver and they would be very direct ... I just remember one time I was trying to park somewhere, and I didn't know where to park. My dad was like "just go in there!" It did not help.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - a bit controlling - my dad was like "just go in there!" It did not help. - no [rules]. Just to not crash it I guess

	<p>I: What about rules? Like if you're borrowing- just going out driving. Are there any driving-related rules? P: No. Just to not crash it I guess. I: Yeah that's a good rule. So, they're pretty open about your driving? You don't have to call and check in? P: No ... It is nice that they trust me because it makes me feel more confident in my abilities, especially if I'm driving one of their vehicles.</p> <p>Yeah, I feel like they wouldn't trust me at all [if they set lots of rules] and feel like I wasn't a good driver.</p> <p>P: But for the most part they were just glad that I was okay. And they didn't have much to say about it. I: Yeah, they didn't throw any sort of punishment on top of it? P: No I: And I would imagine that's kind of relieving, that they are not doing that? P: Yeah.</p> <p>[After being asked which mode is most influential to her driving practices] And just overall, my parents' expectations.</p>	<ul style="list-style-type: none"> - nice that they trust me because it makes me feel more confident in my abilities - I feel like they wouldn't trust me at all [if they set lots of rules] and feel like I wasn't a good driver - they didn't throw any sort of punishment on top of [accident] ... kind of relieving - my parents' expectations [has most impact on driving practices] <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - permissiveness <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - negative parental emotions (e.g., anger) <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - parent expectations remarked as being among most impactful on driving practices out of all modes discussed <p><i>Concluded level:</i> HIGH. P2 identified parents' expectations as being the most impactful mode in conveying to her the cultural models of driving (among two other modes as well though). Such expectations fit within parenting style, but among other separate factors (e.g., warmth and support). It seems that a lack of warmth (e.g., displaying anger) toward P2 inhibits the influence of parenting style, while being permissive (e.g., setting few rules, being understanding of incidents) enhances the impression of this mode. Trust is also important – P2's parents being expressive of trust in her driving skills brings her confidence and reinforces her driving practices, while P2 states the opposite would be true if her parents did not trust her driving.</p>
Mode – Punishment	<p>P: Yeah been in a few car accidents. I: Yeah. And that impacted your driving you felt? P: Yeah while I've always been a cautious driver, but it just keeps happening and I'm not really sure why. So, I try to be more cautious and correct whatever may have caused the last incidents. I: So, do you think it's something about your driving, or driving of people in general...?</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - been in a few car accidents - [accidents] just keeps happening and I'm not really sure why - I try to be more cautious and correct whatever may have caused the last incidents - always seems to be circumstantial - my accidents - if there were more police in town I feel like [others] would be more cautious, but there often isn't

<p>P: It always seems to be circumstantial - my accidents – so I don't want to say it's my driving, but it might be.</p> <p>Yeah, if there were more police in town I feel like they would be more cautious, but there often isn't.</p> <p>My driving instructor said that one in three people get in a car crash every- I don't know what the statistic was- and I was like "oh that's great". So that made me not want to fall into that statistic.</p> <p>In September I rolled my car and I got a driving without due care and attention ticket and I didn't feel like I deserved it because it was on gravel. And it was loose gravel, so I just lost control ... So, that discouraged me. That made me angry because I felt like it was an unfair ticket. But I was the only person at fault, so they had to do something about it I guess... If I was on my phone I would understand, but I wasn't. I was honestly just driving ... I drive slower now on gravel because I'm terrified, but nothing else has really changed because I didn't think anything of me personally affected that accident.</p> <p>P: SGI, how they charge you for the points that you get because I got a lot of bills to pay from that accident. And I felt like I was being punished for surviving the accident [laughs]. I was like, "I could have died but now I'm living and you're giving me this much to pay for it." ... But I understood because you get points and they need like to deter you from bad driving.</p> <p>I: Yeah. So, kind of similar to the police system, right? Doing what it's supposed to, but it's not really having the effects that it should?</p> <p>P: Yeah.</p> <p>[After being asked which mode is most influential to her driving practices] And not wanting to get any more points ... Yeah, that scares me. I just don't want my license taken away.</p>	<ul style="list-style-type: none"> - not want to fall into that statistic - rolled my car and I got a driving without due care and attention ticket ... didn't feel like I deserved it - it was loose gravel, so I just lost control ... So, that discouraged me - made me angry because I felt like it was an unfair ticket - I drive slower now on gravel because I'm terrified - felt like I was being punished for surviving the accident - but I understood because you get points and they need like to deter you from bad driving - doing what [the law]'s supposed to, but it's not really having the effects that it should - not wanting to get any more points ... Yeah, that scares me. I just don't want my license taken away [has most impact on driving practices] <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Punishment →(-) MM Driving - IM → (-) Punishment - IM ← Punishment - Punishment ↔ Driving Authority <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - legal repercussions - repercussions for personal safety <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - blame on circumstantial factors and thus perceiving punishment as unwarranted <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - legal punishment (SGI) remarked as being among most impactful on driving practices out of all modes discussed <p><i>Concluded level:</i> HIGH. P2 states several times that punishment has in fact affected her driving practices, identifying it as one of three modes with the highest impact. Thus, punishment seems to substantially influence P2's MM of driving, specifically when bearing legal or personal safety repercussions. Yet, the power of punishment is somewhat dampened by P2 considering</p>
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		<p>circumstance to play a large role in her incidences, creating what she feels to be unwarranted punishments.</p>
<p>Mode – Monitoring</p>	<p>And then my dad's always telling me like “drive slower”, “do this”, and whatnot, so.</p> <p>My dad was like “just go in there!” It did not help.</p> <p>I have my one friend and she's basically a driving instructor for me, since I'm not confident driving in the city. So, she's always bringing me confidence ... Yeah it is helpful. And other than that, not really [anyone monitoring driving] unless I'm driving with a parent because then they always freak out.</p> <p>[After being asked which mode is most influential to her driving practices] When I drive with friends I feel better in my driving because I feel like if I don't see something, they will. So, I feel safer that way.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - dad's always telling me like “drive slower”, “do this” - my dad was like “just go in there!” It did not help - my one friend ... she's basically a driving instructor for me ... she's always bringing me confidence ... it is helpful - other than [friend], not really [anyone monitoring driving] unless I'm driving with a parent because then they always freak out - when I drive with friends I feel better in my driving because I feel like if I don't see something, they will ... I feel safer that way [has most impact on driving practices] <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - IM ← Monitoring - CM Urban → Monitoring → MM Driving - Monitoring ← Family (-) - Monitoring ← Friends and Peers (+) <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - friend who acts as a “driving instructor” <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - overly critical or angry father <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - friends’ monitoring remarked as being among most impactful on driving practices out of all modes discussed <p><i>Concluded level:</i> MODERATE. Monitoring was cited by P2 as being one of the three most important modes of transmission to developing her MM of driving. However, from her narrative, it appears that monitoring is a strong influence for P2 when her friends are involved (e.g., making her feel safer and more confident), but not so much when her parents (specifically, father) are. The father’s overly critical or angry demeanour reduces monitoring’s effectiveness.</p>

Mode – Print Educational Material	NO DATA	NO DATA
Source – Family	<p>And then my dad's always telling me like “drive slower”, “do this”, and whatnot, so.</p> <p>When driving they can be a bit controlling. I remember being a learner driver and they would be very direct ... I just remember one time I was trying to park somewhere, and I didn't know where to park. My dad was like “just go in there!” It did not help.</p> <p>I: Yeah that's a good rule. So, they're pretty open about your driving? You don't have to call and check in? P: No ... It is nice that they trust me because it makes me feel more confident in my abilities, especially if I'm driving one of their vehicles.</p> <p>Yeah, I feel like they wouldn't trust me at all [if they set lots of rules] and feel like I wasn't a good driver.</p> <p>I: Do you ever discuss with your parents driving – is it a topic that comes up? P: Yeah, sometimes I complain about other drivers to them. Like their unsafe driving. I: Yeah. How does the conversation usually play out? P: Like I'm driving in the city and then get home and say like how someone cut me off or someone passed me doing this and whatnot, usually focus on the impatience of other drivers. I: Yeah, what do your parents think? P: They're like, yeah that's how it goes and what not, don't do that... I: Yeah it sounds like they're in agreeance. P: Yeah.</p> <p>Yeah it is helpful [when friends monitor driving]. And other than that, not really unless I'm driving with a parent because then they always freak out.</p> <p>[After being asked which mode is most influential to her driving practices] And just overall, my parents' expectations.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - my dad's always telling me like “drive slower”, “do this” - they can be a bit controlling - my dad was like “just go in there!” It did not help - it is nice that they trust me because it makes me feel more confident in my abilities - I feel like they wouldn't trust me at all [if they set lots of rules] and feel like I wasn't a good driver - they're in agreeance [when discussing bad drivers] - [no monitoring] unless I'm driving with a parent because then they always freak out - my parents' expectations [has most impact on driving practices] <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - IM ← Family - Family → Monitoring (-) <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - parents' trust <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - parents' aggression <p><i>Concluded level:</i> MODERATE. Parents' expectations were said by P2 to have the most impact on her driving practices, indicating they play a notable role in transmitting cultural models of driving, especially when there is established trust with parents (e.g., minimal driving-related rules). However, there are instances where parents are ineffective sources, such as when P2's dad is aggressively directing her driving (e.g., by yelling).</p>

<p>Source – Friends and Peers</p>	<p>Yeah, my brothers and I had a lot of guy friends growing up that drove kind of recklessly.</p> <p>I: So, some of your friends and brothers driving recklessly has impacted how you drive? Like made you a little more cautious? P: It makes you more cautious because I don't drive like that. I: Right, an example of what not to do while driving. P: Right.</p> <p>I have my one friend and she's basically a driving instructor for me, since I'm not confident driving in the city. So, she's always bringing me confidence ... Yeah it is helpful.</p> <p>[After being asked which mode is most influential to her driving practices] When I drive with friends I feel better in my driving because I feel like if I don't see something, they will. So, I feel safer that way.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - a lot of guy friends growing up that drove kind of recklessly - makes you more cautious because I don't drive like that - an example of what not to do - my one friend ... she's basically a driving instructor for me ... she's always bringing me confidence ... it is helpful - when I drive with friends I feel better in my driving because I feel like if I don't see something, they will ... I feel safer that way [has most impact on driving practices] <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Friends and Peers → MM Driving - IM ← Friends and Peers - CM Urban → Friends and Peers → MM Driving - Friends and Peers → Monitoring <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - for P2, some friends exemplify what <i>not</i> to do <p><i>Concluded level:</i> MODERATE. Friends and peers have played a role in P2 developing her MM of driving. While some friends are helpful by boosting P2's driving confidence ("my one friend ... she's basically a driving instructor for me ... she's always bringing me confidence ... it is helpful), others are helpful by exemplifying how <i>not</i> to drive ("makes you more cautious because I don't drive like that").</p>
<p>Source – Driving Authority</p>	<p>My driving instructor said that one in three people get in a car crash every- I don't know what the statistic was- and I was like "oh that's great". So that made me not want to fall into that statistic.</p> <p>Yeah, if there were more police in town I feel like they would be more cautious, but there often isn't.</p> <p>In September I rolled my car and I got a driving without due care and attention ticket and I didn't feel like I deserved it because it was on gravel. And it was loose gravel, so I just lost control ... So, that discouraged me. That made me angry because I felt like it was an unfair ticket. But I was the only person at fault, so they had to do something about it I guess... If I was on my phone I would understand, but I wasn't. I was honestly just driving ... I drive slower</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - driving instructor said that one in three people get in a car crash ... that made me not want to fall into that statistic - if there were more police in town I feel like [drivers] would be more cautious - rolled my car and I got a driving without due care and attention ticket ... didn't feel like I deserved it - it was loose gravel, so I just lost control ... So, that discouraged me - made me angry because I felt like it was an unfair ticket - felt like I was being punished for surviving the accident - but I understood because you get points and they need like to deter you from bad driving

	<p>now on gravel because I'm terrified, but nothing else has really changed because I didn't think anything of me personally affected that accident.</p> <p>P: SGI, how they charge you for the points that you get because I got a lot of bills to pay from that accident. And I felt like I was being punished for surviving the accident [laughs]. I was like, "I could have died but now I'm living and you're giving me this much to pay for it." ... But I understood because you get points and they need like to deter you from bad driving.</p> <p>I: Yeah. So, kind of similar to the police system, right? Doing what it's supposed to, but it's not really having the effects that it should?</p> <p>P: Yeah.</p> <p>[After being asked which mode is most influential to her driving practices] And not wanting to get any more points ... Yeah, that scares me. I just don't want my license taken away.</p>	<ul style="list-style-type: none"> - doing what [the law]'s supposed to, but it's not really having the effects that it should - I drive slower now on gravel because I'm terrified not wanting to get any more points ... Yeah, that scares me. I just don't want my license taken away [has most impact on driving practices] <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Driving Authority → (-) MM Driving - IM → Driving Authority (-) - IM ← Driving Authority - Driving Authority ↔ Punishment <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - statistical facts - legal repercussions <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - physical absence of authority figures (e.g., police officers) - perceived blame on environmental factors for reprimand from driving authority <p><i>Concluded level: MODERATE.</i> Driving authorities (e.g., driving instructors, police officers, and insurance brokers) convey cultural models of driving effectively through statistical facts and administering legal repercussions. The influence of authority figures is less prominent when they are not physically present and when P2 identifies environmental factors, rather than authority figures, as the source of repercussions (e.g., poor road conditions).</p>
<p>Source – Other Drivers (community, strangers, etc.)</p>	<p>I: Aside from that, does the behaviour of others you influence the way you drive?</p> <p>P: How impatient people are when they drive around you.</p> <p>I used to park in lot 15 [on University of Saskatchewan campus] and I would have to walk across the street to get to campus and people would run the yellow and five more people would run the red and so no one really stops there. And then people just honk at each other if you don't go right away.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - how impatient people are when they drive around you [influences driving practices] - people would run the yellow and five more people would run the red - no one really stops there - people just honk at each other if you don't go right away - you don't go fast enough, people are going to honk at you <p><i>Relationships:</i></p>

	<p>Yeah. So, I guess at a light and it just turns and you don't go fast enough, people are going to honk at you.</p>	<p>- CM Rural → Other Drivers → MM Driving</p> <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - little indication of strength of influence <p><i>Concluded level:</i> MODERATE. Other drivers relay cultural models of driving to P2 primarily by speeding and disobeying streetlights in the city, particularly with impatient drivers on the university campus. However, indication of the strength of other drivers' influence is only briefly referred to in one of P2's responses and in this example is just acknowledging that they do in fact influence her driving practices.</p>
Participant 3 (7689)		
Construct	Transcript Excerpts	Analysis
<p>Model – Cultural Model of Rural Driving</p>	<p>I was obviously raised rurally; I learned how to drive at a very young age. Like before you're supposed to actually have your learner's license or whatever, but I think that's a really common rural thing and I'm kind of grateful for it.</p> <p>When you're raised rurally, and you learned to drive at such a young age, [driving in the city] isn't so scary anymore and you already have the experience. So, like, I was driving when I was 12 or 13, just like around the farm and to the field to pick up lunches or to move machinery, or just to pick up dad from wherever.</p> <p>When you're out rurally like it's 80 [km/hr] on the grid roads but there's no one out there to see how fast you're driving.</p> <p>There's like five kids in my graduating class who moved [to Saskatoon], and I can tell when I'm driving with them, they're very like, "oh my god I'm driving in the city." They're like really cautious and like, scared almost in a way? I think it depends on the age group.</p> <p>Most of us [P3 and her friends] drove to school, and it's like gravel roads and there's nothing to pay attention to other than wildlife.</p> <p>There are police officers everywhere in the city. Which is really great, and I really enjoy that, but you would rarely ever see that where I come from.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - learned how to drive at a very young age ... a really common rural thing - when you're raised rurally, and you learned to drive at such a young age, [driving in the city] isn't so scary anymore - driving when I was 12 or 13, just like around the farm and to the field to pick up lunches or to move machinery, or just to pick up dad from wherever - no one out there to see how fast you're driving - there's like five kids in my graduating class who moved [to Saskatoon] ... They're like really cautious and like, scared - gravel roads and there's nothing to pay attention to other than wildlife - but you would rarely ever see [police officers] where I come from - [a friend] would drive on the gravel road so that she could drive faster and have a less chance of meeting a cop - when you live rurally you only ever hit wildlife at night ... made me super scared - out of nowhere three deer came ... they came out of nowhere ... "wow, I really don't want to hit something" - a small-town thing, like "drive while you're young so you aren't so anxious when the time comes to do all the tests and what not." - grateful that I learned how to drive at a young age ... always in a safe environment, and I always had someone with me

	<p>[A friend] would drive on the gravel road so that she could drive faster and have a less chance of meeting a cop ... which is inevitably making it dangerous to drive on grid roads when other people like that are on them.</p> <p>It seems like everyone when you live rurally you only ever hit wildlife at night and that always made me super scared.</p> <p>My boyfriend ... was driving home and out of nowhere three deer came out and he was gonna hit one of them anyways, but they came out of nowhere because on one side it was a pond and the other side it was a town ... It's like "wow, I really don't want to hit something." That's why I always drive super cautiously at night.</p> <p>That's probably just a small-town thing, like "drive while you're young so you aren't so anxious when the time comes to do all the tests and what not."</p> <p>I would just want to emphasize that I'm extremely grateful that I learned how to drive at a young age. I don't think it was a bad thing and I was always in a safe environment, and I always had someone with me.</p>	<p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Rural → Overt Verbal Communication → MM Driving - CM Rural → Parenting Style → MM Driving - CM Rural → (-) Punishment → MM Driving - CM Rural → Family → MM Driving - CM Rural → Friends and Peers → MM Driving - CM Rural → (-) Driving Authority → MM Driving - CM Rural → Other Drivers → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - viewing or hearing about driving practices of family, friends, and other drivers - parents permitting driving at a young age - low police officer presence <p><i>Conclusion:</i> For P3, the cultural model of rural driving is seen mostly as safe ("always in a safe environment, and I always had someone with me"), though permissive of speeding, in part due to isolation (wildlife is seen as the main danger) and low police presence. However, the focus of P3's narrative seems more to be about the merit of this cultural model, offering utility (i.e., farm work and family transportation) and driving experience from an early age. Because driving before legal age is commonplace in P3's rural community, she feels that youth are better equipped to attempt their driver's license exam, as well as driving in larger cities.</p>
<p>Model – Individual Model of Driving</p>	<p>I'm kind of grateful for [learning to drive rurally]. I've always felt really comfortable driving as well, like I don't think that I'm a really bad driver or dangerous by any means.</p> <p>I was driving when I was 12 or 13, just like around the farm and to the field to pick up lunches or to move machinery, or just to pick up dad from wherever. It's just I feel like if I hadn't learned how to drive at a young age, taking driver training in high school would've been really scary, and I would've completely known nothing, so I would've been like really on edge taking my courses.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - I'm kind of grateful for [learning to drive rurally] ... always felt really comfortable driving - I don't think that I'm a really bad driver or dangerous by any means - driving when I was 12 or 13, just like around the farm and to the field to pick up lunches or to move machinery, or just to pick up dad from wherever - if I hadn't learned how to drive at a young age, taking driver training in high school would've been really scary, and I would've completely known nothing

<p>I'm very much more cautious out here [in Saskatoon] because you're paying attention to pedestrians, which you don't have on the gravel roads ever. And other people are driving, and you have to pay attention to- there's just lots of things you have to look out for in the city rather than rurally. So, I do drive way more cautiously out here- which is a good thing.</p> <p>If I wake up and see that it's snowed, and melted and then froze again, then I definitely like, leave extra time for people who don't drive as cautiously as I do, for example, or leave time because the roads are kinda icy.</p> <p>I really like it when my mom is like a Nazi driver. Like she has two hands and is really prestigious; shoulder checks and everything, which is really good. I've kind of let onto that now that I live in the city. I actually have to do a lot of that kind of thing.</p> <p>I've definitely had one friend who drove a big truck and she was always flying ... Like I was present with her some of the times. And I think that made me really watch for other people because we all live on a gravel road out there.</p> <p>I'm on edge when I drive at night because I'm super scared of hitting something.</p> <p>E: Then I guess [hitting wildlife is] not so much of a worry driving in the city. P: Which is really nice, it's like "yay I don't have to watch for wildlife", now I just have to watch for other people driving or other people walking. Because it seems like everyone is getting hit lately.</p> <p>I would just want to emphasize that I'm extremely grateful that I learned how to drive at a young age. I don't think it was a bad thing and I was always in a safe environment, and I always had someone with me. And I don't ever like, I would never be like "oh I would never let my kids drive that young!" Because I think it was a great experience. And I think it has definitely helped me in the long run, because I got that experience while I was younger.</p>	<ul style="list-style-type: none"> - more cautious out here [in Saskatoon] because you're paying attention to pedestrians ... I do drive way more cautiously - it's snowed ... I definitely like, leave extra time for people who don't drive as cautiously as I do - I really like it when my mom is like a Nazi driver ... two hands ... really prestigious; shoulder checks ... I've kind of let onto that now that I live in the city. I ... do a lot of that - one friend who drove a big truck and she was always flying ... I think that made me really watch for other people - on edge when I drive at night ... scared of hitting something - [hitting wildlife is] not so much of a worry driving in the city ... Now I just have to watch for other people ... Because it seems like everyone is getting hit lately - I'm extremely grateful that I learned how to drive at a young age ... was always in a safe environment, and I always had someone with me ... has definitely helped me in the long run, because I got that experience while I was younger - learned some really good skills [driving at a young age] ... I've learned all that stuff in a realistic thing rather than reading it - backed into someone ... had to pay for it - I've never been pulled over - I don't like parallel parking anymore. I never did to begin with. I'm gonna avoid that at all costs now - never had to file a claim like that before ... super daunting. I personally would not like to do that ever again - near misses- well, hitting a deer, that has happened a few times - was gonna change lanes, and this person ... They were so far away ... and then they were there again ... More cautious [driving now]. Super scary when that happens - pretty cautious in the city ... but now that I've actually lived here, it's subsided a little bit and feels more normal - when I have someone with me everything goes wrong ... miss a light or you stop too soon for a light - learning [to drive] at a young age ... Definitely [parents] being more lenient and open to early exposure was really nice, and I think has really benefited me in the long run <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - IM ← Observation and Modeling - IM → (-) Observation and Modeling
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<p>I learned some really good skills [driving at a young age] ... I've learned all that stuff in a realistic thing rather than reading it in a book.</p> <p>I was in a parallel park and backed into someone. I was not really driving. But I reported it to the person, went through SGI, had to pay for it kinda thing. But that wasn't- like I've never had any actual moving driving related incidents. I've never been pulled over.</p> <p>[Had to] pay for damages and there were points off my license, I just don't know how many. They were so stupid though, like you couldn't even see the dent. It was awful. Like I could've probably crawled under their truck, popped it out. I got some points off my license and paid for the damage on the other vehicle, and there was nothing wrong with my vehicle ... Yeah, I don't like parallel parking anymore. I never did to begin with. I'm gonna avoid that at all costs now, I don't wanna do that again. But I've never had to file a claim like that before, so that was all super daunting. I personally would not like to do that ever again.</p> <p>P: Yes, near misses- well, hitting a deer, that has happened a few times. Definitely very scary ... And when I actually first moved up to the city, I can't remember what was happening but I was gonna change lanes, and this person was way in front of me ... They were so far away, and then I was like "okay I'm good to go" and then they were there again, so.</p> <p>E: Are there any sort of change in your driving from that? P: More cautious. Super scary when that happens.</p> <p>I've always been pretty cautious in the city because I've never lived here that long, but now that I've actually lived here, it's subsided a little bit and feels more normal.</p> <p>I always find that when I have someone with me everything goes wrong. Not everything goes wrong, I should say, but, you miss a light or you stop too soon for a light. Like you could've made it. And then they go, "aw you could've made that light. Why didn't you go?" Or like, "you should really watch out because that person almost hit you."</p> <p>Learning [to drive] at a young age. My dad was all for it, and my mom was kinda whatever. Definitely them being more lenient and open to</p>	<ul style="list-style-type: none"> - IM ← Parenting Style - IM ← Punishment - IM ← Monitoring - IM → (-) Monitoring - IM ← Family - IM ← Driving Authority - IM ← Other Drivers <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - seeing family, friends, and other drivers on the road - parents allowing P7 to drive at young age - presence of friends as passengers while driving - experiencing incident and insurance claim process <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - P3 is a comfortable/confident driver - resisted passively adopting friend's reckless driving <p><i>Conclusion:</i> P3 has established a solid individual model of driving through 5+ years of driving experience. This experience was only possible from learning to drive at a young age (12 or 13 years old), which her parents were supportive of. P3 is grateful for learning driving early on as it has eased tension while driving in the city and during her driver's exam. This experiential learning is seen by P3 as more instructive than reading (e.g., in driver's training). Overall, P3 drives cautiously, partly owed to environmental factors (whether wildlife in rural SK, pedestrians and other drivers in the city, or weather conditions in either setting), experiencing near-misses while driving (almost hitting a deer, as well as another vehicle), and taking on her mom's safe driving practices. As well, P3 has never been pulled over by police or ticketed but has been in a minor incident (backed into someone else's vehicle while parallel parking), which has inspired her to drive more cautiously and even avoid parallel parking. While her comfort has increased with experience, P3 still seems to feel on edge when driving with friends as passengers. This robust individual model, expressive of safe driving practices, has helped P3 to resist passively adopting her friend's reckless driving practices.</p>
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	<p>early exposure was really nice, and I think has really benefited me in the long run.</p>	
<p>Model – Cultural Model of Urban Driving</p>	<p>If I were to look at [driving] from a city kid’s point of view, it would almost be daunting to drive because you’re in the city and there’s so much to pay attention to and it’s scary.</p> <p>Paying more attention to the speed limits and stuff in the city because there’s more probation out here.</p> <p>I’m very much more cautious out here [in Saskatoon] because you’re paying attention to pedestrians, which you don’t have on the gravel roads ever. And other people are driving, and you have to pay attention to- there’s just lots of things you have to look out for in the city rather than rurally.</p> <p>I ... leave extra time for people who don’t drive as cautiously as I do.</p> <p>I just find that people in the city, in general, are way more aggressive than people who were driving around the small town where I grew up kinda thing ... I don’t know if it’s like, making lights and stuff like that I guess is part of it, but I do find that there’s a lot of like, aggressive driving up here; in terms of honking and riding on people’s bumpers.</p> <p>It’s just not like everyone who lives in the city is aggressive and less cautious. There is just a lot of aggression ... There’s like five kids in my graduating class who moved [to Saskatoon], and I can tell when I’m driving with them, they’re very like, “oh my god I’m driving in the city.” They’re like really cautious and like, scared almost in a way? I think it depends on the age group.</p> <p>In the city, you have to watch for lights and people coming up behind you and people coming up in other lanes. And also, there are police officers everywhere in the city. Which is really great ... So, I ... there’s more to pay attention to and there’s more enforcement [in the city].</p> <p>E: Then I guess [hitting wildlife is] not so much of a worry driving in the city.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - daunting to drive [in the city] because you’re in the city and there’s so much to pay attention to and it’s scary - paying more attention to the speed limits ... in the city because there’s more probation out here - more cautious out here [in Saskatoon] because you’re paying attention to pedestrians ... And other people are driving - leave extra time for people who don’t drive as cautiously as I do - people in the city ... are way more aggressive than people who were driving around the small town where I grew up - making lights ... aggressive driving up here [in Saskatoon]; in terms of honking and riding on people’s bumpers - not like everyone who lives in the city is aggressive and less cautious. There is just a lot of aggression - five kids in my graduating class who moved [to Saskatoon], ... really cautious and like, scared almost in a way - watch for lights and people coming up behind you and people coming up in other lanes - police officers everywhere in the city - more to pay attention to and there’s more enforcement - watch for other people [in the city] ... Because it seems like everyone is getting hit lately - people are actually getting hit - the photo radar speed patrolling thing, just knowing all that stuff is out there definitely ... keeps me in line <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Urban → Observation and Modeling → MM Driving - CM Urban → Overt Verbal Communication → MM Driving - CM Urban → Parenting Style → MM Driving - CM Urban → Punishment → MM Driving - CM Urban → Family → MM Driving - CM Urban → Driving Authority → MM Driving - CM Urban → Other Drivers → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - observing and hearing of driver’s behaviours

	<p>P: Which is really nice, it's like "yay I don't have to watch for wildlife", now I just have to watch for other people driving or other people walking. Because it seems like everyone is getting hit lately.</p> <p>On the news ... five pedestrians in the last five days have been hit ... An old lady got hit by a person crossing and she died ... Like people are actually getting hit.</p> <p>The punishment thing is huge. I've never had a ticket or anything like that but knowing that in the city here they have the photo radar speed patrolling thing, just knowing all that stuff is out there definitely kind of, well I dunno about anyone else, keeps me in line. It's not a bad thing.</p>	<ul style="list-style-type: none"> - news stories - police officer presence <p><i>Conclusion:</i> P3 sees the cultural model of urban driving as involving a greater adherence to traffic laws (e.g., speeding) than in rural communities due to police presence. However, urban driving is seen as rather unsafe because of the many distractions and environmental factors in the city (e.g., traffic lights, pedestrians, and other drivers.). In fact, P3 has heard of people getting hit by vehicles in the city, which is not a factor in her rural community. Furthermore, P3 finds urban drivers to generally be aggressive and unsafe (e.g., honking, speeding through lights, tailgating), potentially because they are impatient and in a rush.</p>
<p>Mode – Observation and Modeling</p>	<p>I'm always worried about how other people drive rather than myself.</p> <p>E: Do you feel like you adjust your driving to others then? So, like if people are driving crazy on icy roads-</p> <p>P: Yes, I do. If I wake up and see that it's snowed, and melted and then froze again, then I definitely like, leave extra time for people who don't drive as cautiously as I do.</p> <p>My sister ... She's very aggressive.</p> <p>E: Yeah similar with other general drivers and if you see your sister driving aggressively, does that make you drive more cautiously?</p> <p>P: Yeah, I would think so. Yeah ... Just like, knowing that other people are like that, makes me change my driving so that I'm not the one getting into an accident.</p> <p>I really like it when my mom is like a Nazi driver. Like she has two hands and is really prestigious; shoulder checks and everything, which is really good. I've kind of let onto that now that I live in the city. I actually have to do a lot of that kind of thing. My sister is still kind of young, so she's not as like, I don't want to say mature, but she's just different like when you look at how my mom drives and how my sister would drive. Like my mom does all the good and proper things to do while you're driving, which ... makes you feel good and makes you feel safe.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - worried about how other people drive rather than myself - leave extra time for people who don't drive as cautiously as I do - my sister ... She's very aggressive - knowing that other people are [aggressive drivers], makes me change my driving so that I'm not the one getting into an accident - I really like it when my mom is like a Nazi driver ... two hands ... really prestigious; shoulder checks ... I've kind of let onto that now that I live in the city. I ... do a lot of that - [sister's] more laid back ... doesn't really shoulder check ... less cautious [than mother] - one friend who drove a big truck and she was always flying ... I think that made me really watch for other people <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - IM ← Observation and Modeling - IM → (-) Observation and Modeling - CM Urban → Observation and Modeling → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - driving behaviours of close others, such as sister, mother and friends – as well as other drivers - perceiving others' driving behaviours to be bad examples

	<p>[Sister's] more laid back ... doesn't really shoulder check ... I don't want to say careless because that sounds bad. But ... less cautious is the best way to put it.</p> <p>I've definitely had one friend who drove a big truck and she was always flying ... Like I was present with her some of the times. And I think that made me really watch for other people because we all live on a gravel road out there ... Inevitably making it dangerous to drive on grid roads when other people like that are on them.</p>	<p><i>Other comments:</i></p> <ul style="list-style-type: none"> - resisted passively adopting friend's reckless driving; observed what not to do <p><i>Concluded level:</i> MODERATE. Cultural models of driving are transmitted to P3 by observing and/or modeling the behaviours of others around her, particularly her sister, mother, and other drivers. Specifically, P3 models her mother's driving behaviours because they are seen as ideal and safe, but not her sister's whose are seen as less cautious. Concerning other drivers, their driving behaviours often convey to P3 unsafe models of driving, forcing her to alter her own practices to avoid incidents (e.g., drive more cautiously). The reckless driving behaviours of P3's friend also provides her with unsafe practices characteristic of rural driving, which P3 views of examples of how not to drive.</p>
<p>Mode – Overt Verbal Communication</p>	<p>[A friend] said she would avoid driving on the highway. She would drive on the gravel road so that she could drive faster and have a less chance of meeting a cop. So that really influenced me in a way where like, wow, people actually do that.</p> <p>I have so many near-miss stories from lots of my friends and it's super scary. Personally, I don't like driving at night because other people have had near misses or basically hit other wildlife. It seems like everyone when you live rurally you only ever hit wildlife at night and that always made me super scared.</p> <p>My boyfriend ... was driving home and out of nowhere three deer came out and he was gonna hit one of them anyways, but they came out of nowhere because on one side it was a pond and the other side it was a town ... It's like "wow, I really don't want to hit something." That's why I always drive super cautiously at night.</p> <p>On the news ... five pedestrians in the last five days have been hit ... An old lady got hit by a person crossing and she died ... Like people are actually getting hit.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - [friend] said she would ... drive on the gravel road so that she could drive faster and have a less chance of meeting a cop ... influenced me in a way where like, wow, people actually do that - so many near-miss stories ... super scary - don't like driving at night because other people have had near misses or basically hit other wildlife - out of nowhere three deer came ... they came out of nowhere ... "wow, I really don't want to hit something" - on the news ... five pedestrians in the last five days have been hit <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Overt Verbal Communication → MM Driving - CM Urban → Overt Verbal Communication → MM Driving <p><i>Concluded level:</i> MODERATE. Stories from friends and newscasters help P3 to understand cultural models of both rural and urban driving. Numerous stories of hitting wildlife at night while driving in rural areas has made P3 scared of driving at night. Likewise, news coverage of pedestrians being hit by vehicles in Saskatoon enforces the belief that driving is unsafe in cities.</p>

<p>Mode – Parenting Style (Regarding Driving)</p>	<p>I was driving when I was 12 or 13, just like around the farm and to the field to pick up lunches or to move machinery, or just to pick up dad from wherever.</p> <p>I would just want to emphasize that I’m extremely grateful that I learned how to drive at a young age. I don’t think it was a bad thing and I was always in a safe environment, and I always had someone with me. And I don’t ever like, I would never be like “oh I would never let my kids drive that young!” Because I think it was a great experience. And I think it has definitely helped me in the long run, because I got that experience while I was younger.</p> <p>When I first started driving, my parents were ... Controlling ... When I first got my license they were like “okay, you need to be careful and you should come home before it gets dark out,” which is funny because I learned how to drive like super young.</p> <p>Particularly my mom, she was always the one that was grabbing the handle in the car and being like “oh my gosh, slow down!” and “okay like watch for this, watch for that.”</p> <p>With my dad, he was more laid back. I don’t know if it’s just like a fatherly thing, but I always had this sense that I was doing fine when I was driving with him.</p> <p>Now I think [parents] trust me ... they trust me like way more now than initially. Now that I live in the city and have been driving for so long. So, they’re more like lenient or whatever and don’t need to tell me to slow down or make sure I’m not speeding.</p> <p>“Okay, you have to be home at like, 6” like be home at a reasonable time. They always had that thing. And especially when it was their vehicles. Like, “I don’t want you out when it’s too dark” or whatever. “You have to be home at a good time.” There wasn’t any restrictions on where I could go though, so that was interesting. Like it didn’t matter where I took their vehicle, I just had to be home.</p> <p>If it was like 6, it would be like 5 after. But it would never be like “oh yeah, home at 7”. Like I always respected that kind of thing. And like,</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - driving when I was 12 or 13, just like around the farm and to the field to pick up lunches or to move machinery, or just to pick up dad from wherever - extremely grateful - I was always in a safe environment - helped me in the long run, because I got that experience - when I first started driving, my parents were ... Controlling - my mom, she was always the one that was grabbing the handle in the car and being like “oh my gosh, slow down!” - my dad, he was more laid back ... I always had this sense that I was doing fine when I was driving with him - [parents] trust me like way more now than initially - it didn’t matter where I took their vehicle, I just had to be home - I always respected [curfews] - it was good to have those rules set out when I was that young - [when asked which mode is most influential] parenting style definitely - [parents] being more lenient and open to early exposure was really nice, and I think has really benefited me in the long run <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Parenting Style → MM Driving - IM ← Parenting Style - CM Urban → Parenting Style → MM Driving - Parenting Style ↔ Family <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - learning to drive at a young age <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - one of two most influential modes <p><i>Concluded level:</i> HIGH. Parenting style is one of two modes that P3 stated has been most influential to her MM of driving. Specifically, “being more lenient and open to early exposure was really nice, and I think has really benefited me in the long run.” From an early age, P3 learned that traffic laws are not fixed in urban communities; her parents allowed her to drive at 12 or 13 to help out with family work and tasks. P3 credits this support of</p>
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	<p>I don't really know how that would have influenced me, but it was good to have those rules set out when I was that young.</p> <p>[When asked which mode is most influential] parenting style definitely. Tying it back to learning [to drive] at a young age. My dad was all for it, and my mom was kinda whatever. Definitely them being more lenient and open to early exposure was really nice, and I think has really benefited me in the long run.</p>	<p>her parents in pre-legal driving for her driving confidence and expertise. Once P3 acquired her driver's license, her parents became more controlling (more so mother than father), surprising to P3. At this point, some driving rules were set (e.g., curfew), but more freedom was allowed in other facets (e.g., where P3 could drive). P3 feels that driving rules were beneficial to her, though she has trouble articulating exactly how. Nonetheless, P3's parents are more trusting of her driving now, resulting in less rules or control over her driving.</p>
<p>Mode – Punishment</p>	<p>Paying more attention to the speed limits and stuff in the city because there's more probation out here ... When you're out rurally like it's 80 [km/hr] on the grid roads but there's no one out there to see how fast you're driving. And out here I'm very much more cautious out here because you're paying attention to pedestrians, which you don't have on the gravel roads ever.</p> <p>There are police officers everywhere in the city. Which is really great ... So, I ... there's more to pay attention to and there's more enforcement [in the city].</p> <p>I was in a parallel park and backed into someone. I was not really driving. But I reported it to the person, went through SGI, had to pay for it kinda thing. But that wasn't- like I've never had any actual moving driving related incidents. I've never been pulled over.</p> <p>[Had to] pay for damages and there were points off my license, I just don't know how many. They were so stupid though, like you couldn't even see the dent. It was awful. Like I could've probably crawled under their truck, popped it out. I got some points off my license and paid for the damage on the other vehicle, and there was nothing wrong with my vehicle ... Yeah, I don't like parallel parking anymore. I never did to begin with. I'm gonna avoid that at all costs now, I don't wanna do that again. But I've never had to file a claim like that before, so that was all super daunting. I personally would not like to do that ever again.</p> <p>P: Yes, near misses- well, hitting a deer, that has happened a few times. Definitely very scary ... And when I actually first moved up to the city, I can't remember what was happening but I was gonna change lanes, and this person was way in front of me ... They were so</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - more attention to the speed limits ... in the city - more probation [in the city] - it's 80 [km/hr] on the grid roads but there's no one out there to see how fast you're driving - I'm very much more cautious [in the city] because you're paying attention to pedestrians - police officers everywhere in the city - more to pay attention to and there's more enforcement [in the city] - backed into someone ... had to pay for it - I've never been pulled over - I don't like parallel parking anymore. I never did to begin with. I'm gonna avoid that at all costs now - never had to file a claim like that before ... super daunting. I personally would not like to do that ever again - near misses- well, hitting a deer, that has happened a few times - was gonna change lanes, and this person ... They were so far away ... and then they were there again ... More cautious [driving now]. Super scary when that happens - pretty cautious until I get to my destination and then when I'm leaving again to get into my vehicle ... But I'm not like overly excessively - [when asked which mode is most influential] also, the punishment thing is huge - never had a ticket or anything like that - knowing that in the city here they have the photo radar speed patrolling thing ... keeps me in line <p><i>Relationships:</i></p> <p>- CM Rural → (-) Punishment → MM Driving</p>

	<p>far away, and then I was like “okay I’m good to go” and then they were there again, so.</p> <p>E: Are there any sort of change in your driving from that?</p> <p>P: More cautious. Super scary when that happens ... Definitely right away I get that weird like, roller coaster feeling in your stomach and I get kind of shaky because it was scary. And then I’m pretty cautious until I get to my destination and then when I’m leaving again to get into my vehicle. Like, “hey that almost happened but let’s just be more cautious” but I’m not like overly excessively, is the best way to put it.</p> <p>[When asked which mode is most influential] also, the punishment thing is huge. I’ve never had a ticket or anything like that but knowing that in the city here they have the photo radar speed patrolling thing, just knowing all that stuff is out there definitely kind of, well I dunno about anyone else, keeps me in line. It’s not a bad thing.</p>	<ul style="list-style-type: none"> - IM ← Punishment - CM Urban → Punishment → MM Driving - Punishment ↔ Driving Authority <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - physical presence of enforcement (e.g., police officers and photo radar) <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - lack of enforcement presence (e.g., police officers and photo radar) <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - one of the two most influential modes <p><i>Concluded level:</i> HIGH. Punishment is identified by P3 as one of the two most impactful modes of cultural model transmission. In rural areas, there is no punishment for driving recklessly (e.g., speeding) because there are no police to prevent it, suggesting to P3 that reckless driving is permissible. However, P3 has almost hit wildlife and another driver while driving rurally. Reflecting on the punishment that would have followed these near-misses deters P3 from driving without care, though it does not affect her “overly excessively”. It appears that P3’s individual model of driving built from personal experience is combatting the cultural model of rural driving’s prescription to drive recklessly. P3 finds that greater care and attention are required in the city because there are more distractors (e.g., police and pedestrians) and a greater likelihood of punishment because of greater enforcement (e.g., police presence and photo radars). Although P3 has never been pulled over before, having to pay for damages after backing into a parked car left a lasting imprint on her – she avoids parallel parking entirely now.</p>
Mode – Monitoring	<p>I always find that when I have someone with me everything goes wrong. Not everything goes wrong, I should say, but, you miss a light or you stop too soon for a light. Like you could’ve made it. And then they go, “aw you could’ve made that light. Why didn’t you go?” Or like, “you should really watch out because that person almost hit you.” ... I do find that some of the people I’ve moved up here with don’t really like driving up here. They haven’t adapted to the city well. So,</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - when I have someone with me everything goes wrong - you miss a light or you stop too soon for a light - when they’re driving with me I can tell they’re kind of like, tense and on edge kind of thing ... It makes me nervous - I don’t really take extreme measures to accommodate them

	<p>when they're driving with me I can tell they're kind of like, tense and on edge kind of thing ... It makes me nervous. Like, "why are you nervous I'm doing fine." Then it affects me because I just get nervous and then I dunno. I don't really take extreme measures to accommodate them because I'm not doing anything wrong.</p> <p>When I'm with my mom though, when she's like, in the passenger seat, she's tensed up and holding onto that – we call it the "holy shit handle." Pardon my language but that's what we call it. She's holding onto that and so I'll like, slow down and ask her what's wrong, and she's like "oh you know, just on edge driving with you." And it's like, okay well I don't know what to do about that.</p>	<p>- my mom though ... she's tensed up and holding onto ... the "holy shit handle"</p> <p>- I'll like, slow down and ask [mother] what's wrong, and she's like "oh you know, just on edge driving with you" ... Okay well I don't know what to do about that</p> <p><i>Relationships:</i></p> <p>- IM ← Monitoring</p> <p>- IM → (-) Monitoring</p> <p><i>Hampered by:</i></p> <p>- confidence in driving practices (IM)</p> <p><i>Concluded level:</i> LOW. P3 does not feel the need to alter her driving practices based on passengers' monitoring, though her driving may be negatively impacted regardless (e.g., running red lights, stopping short, and becoming nervous). Monitoring conveys cultural models of driving to P3 to a modest degree – with her rural-raised friends, P3's driving makes them nervous, suggesting it is discordant with driving practices in rural Saskatchewan. A similar situation is seen with P3's mother as a passenger, also reflecting a mismatch between P3's driving practices and those typical of rural drivers.</p>
<p>Mode – Print Educational Material</p>	<p>I learned some really good skills [driving at a young age] ... I've learned all that stuff in a realistic thing rather than reading it in a book.</p>	<p><i>Key words:</i></p> <p>- rather than reading it in a book</p> <p><i>Other comments:</i></p> <p>- real-life experience more valuable for learning than reading (inferred)</p> <p><i>Concluded level:</i> UNKNOWN. Though P3 only hints at the influence of print educational material in one passage of dialogue, it seems clear that she values real-life experience over reading instructional materials. However, given scarcity of data, it is unknown exactly how effectively this mode transmits cultural models to P3.</p>
<p>Source – Family</p>	<p>My sister ... She's very aggressive.</p> <p>E: Yeah similar with other general drivers and if you see your sister driving aggressively, does that make you drive more cautiously?</p>	<p><i>Key words:</i></p> <p>- my sister ... She's very aggressive</p>

<p>P: Yeah, I would think so. Yeah ... Just like, knowing that other people are like that, makes me change my driving so that I'm not the one getting into an accident.</p> <p>I really like it when my mom is like a Nazi driver. Like she has two hands and is really prestigious; shoulder checks and everything, which is really good. I've kind of let onto that now that I live in the city. I actually have to do a lot of that kind of thing. My sister is still kind of young, so she's not as like, I don't want to say mature, but she's just different like when you look at how my mom drives and how my sister would drive. Like my mom does all the good and proper things to do while you're driving, which ... makes you feel good and makes you feel safe.</p> <p>[Sister's] more laid back ... doesn't really shoulder check ... I don't want to say careless because that sounds bad. But ... less cautious is the best way to put it.</p> <p>When I first started driving, my parents were ... Controlling ... When I first got my license they were like "okay, you need to be careful and you should come home before it gets dark out," which is funny because I learned how to drive like super young.</p> <p>Particularly my mom, she was always the one that was grabbing the handle in the car and being like "oh my gosh, slow down!" and "okay like watch for this, watch for that."</p> <p>With my dad, he was more laid back. I don't know if it's just like a fatherly thing, but I always had this sense that I was doing fine when I was driving with him.</p> <p>Now I think [parents] trust me ... they trust me like way more now than initially. Now that I live in the city and have been driving for so long. So, they're more like lenient or whatever and don't need to tell me to slow down or make sure I'm not speeding.</p> <p>When I'm with my mom though, when she's like, in the passenger seat, she's tensed up and holding onto that – we call it the "holy shit handle." Pardon my language but that's what we call it. She's holding onto that and so I'll like, slow down and ask her what's wrong, and</p>	<ul style="list-style-type: none"> - knowing that other people are [aggressive drivers], makes me change my driving so that I'm not the one getting into an accident - I really like it when my mom is like a Nazi driver ... two hands ... really prestigious; shoulder checks ... I've kind of let onto that now that I live in the city. I ... do a lot of that - [sister's] more laid back ... doesn't really shoulder check ... less cautious [than mother] - when I first started driving, my parents were ... Controlling - my mom, she was always the one that was grabbing the handle in the car and being like "oh my gosh, slow down!" - my dad, he was more laid back ... I always had this sense that I was doing fine when I was driving with him - [parents] trust me like way more now than initially - [when asked which mode is most influential] parenting style definitely - [parents] being more lenient and open to early exposure was really nice, and I think has really benefited me in the long run <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Family → MM Driving - IM ← Family → MM Driving - CM Urban → Family → MM Driving - Family ↔ Parenting Style <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - parenting style one of two most influential modes <p><i>Concluded level:</i> HIGH. Experiences involving P3's family have been instrumental in shaping her current MM of driving, reflected in parenting style being one of the two most influential modes for P3's understanding of cultural models. P3's mother's driving practices are seen as safe, which P3 tries to incorporate into her own driving. P3's mother was also controlling when P3 got her driver's license (and her father, to a lesser degree) but is more trusting now. Reflecting on her parents' driving rules, P3 feels they have been beneficial to her, but she has trouble articulating exactly how. Conversely, P3's sister, who lives in Saskatoon, drives aggressively, indicating the cultural model of</p>
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	<p>she's like "oh you know, just on edge driving with you." And it's like, okay well I don't know what to do about that.</p> <p>[When asked which mode is most influential] parenting style definitely. Tying it back to learning [to drive] at a young age. My dad was all for it, and my mom was kinda whatever. Definitely them being more lenient and open to early exposure was really nice, and I think has really benefited me in the long run.</p>	<p>urban driving and providing P3 with what she perceives as an example of how not to drive.</p>
Source – Friends and Peers	<p>[A friend] would drive on the gravel road so that she could drive faster and have a less chance of meeting a cop ... which is inevitably making it dangerous to drive on grid roads when other people like that are on them.</p> <p>I have so many near-miss stories from lots of my friends and it's super scary. Personally, I don't like driving at night because other people have had near misses or basically hit other wildlife. It seems like everyone when you live rurally you only ever hit wildlife at night and that always made me super scared.</p> <p>My boyfriend ... was driving home and out of nowhere three deer came out and he was gonna hit one of them anyways, but they came out of nowhere because on one side it was a pond and the other side it was a town ... It's like "wow, I really don't want to hit something." That's why I always drive super cautiously at night.</p> <p>I do find that some of the people I've moved up here with don't really like driving up here. They haven't adapted to the city well. So, when they're driving with me I can tell they're kind of like, tense and on edge kind of thing ... It makes me nervous. Like, "why are you nervous I'm doing fine." Then it affects me because I just get nervous and then I dunno. I don't really take extreme measures to accommodate them because I'm not doing anything wrong.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - [a friend] would drive on the gravel road so that she could drive faster and have a less chance of meeting a cop - dangerous to drive on grid roads when other people like that are on them - so many near-miss stories ... super scary - don't like driving at night because other people have had near misses or basically hit other wildlife - when you live rurally you only ever hit wildlife at night - out of nowhere three deer came ... they came out of nowhere ... "wow, I really don't want to hit something" - when they're driving with me I can tell they're kind of like, tense and on edge kind of thing ... It makes me nervous - I don't really take extreme measures to accommodate them <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Friends and Peers → MM Driving <p><i>Concluded level:</i> HIGH. P3's friends play a large role in her establishing a private cultural model of rural driving. Friends' stories of reckless driving and near-misses illustrate the dangers of driving in rural areas, especially at night when it is difficult to spot wildlife. A detailed example is given by P3 of her friend that speeds on rural roads because of low police presence, demonstrating that such driving is permitted in rural areas. As well, P3's cautious driving in the city makes her rural-raised friends nervous, perhaps suggesting that they would drive more erratically in a setting with many more distractors than rural areas.</p>
Source – Driving Authority	<p>Paying more attention to the speed limits and stuff in the city because there's more probation out here ... When you're out rurally like it's 80 [km/hr] on the grid roads but there's no one out there to see how fast</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - paying more attention to the speed [in Saskatoon] ... because there's more probation out here

	<p>you're driving. And out here I'm very much more cautious out here because you're paying attention to pedestrians, which you don't have on the gravel roads ever.</p> <p>There are police officers everywhere in the city. Which is really great ... So, I ... there's more to pay attention to and there's more enforcement [in the city].</p> <p>I've never had to file a claim like that before, so that was all super daunting. I personally would not like to do that ever again.</p> <p>[When asked which mode is most influential] also, the punishment thing is huge. I've never had a ticket or anything like that but knowing that in the city here they have the photo radar speed patrolling thing, just knowing all that stuff is out there definitely kind of, well I dunno about anyone else, keeps me in line. It's not a bad thing.</p>	<ul style="list-style-type: none"> - it's 80 [km/hr] on the grid roads but there's no one out there to see how fast you're driving - more to pay attention to and there's more enforcement [in the city] - had to file a claim ... would not like to do that ever again - never had a ticket or anything like that - knowing that in the city here they have the photo radar speed patrolling thing ... keeps me in line <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → (-) Driving Authority → MM Driving - IM ← Driving Authority - CM Urban → Driving Authority → MM Driving - Driving Authority ↔ Punishment <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - physical presence (e.g., officers, photo radar) <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - lack of physical presence (e.g., officers, photo radar) <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - punishment one of two most influential modes <p><i>Concluded level:</i> HIGH. Portions of P3's narrative relating to driving authority are solely focused on legal figures. To P3, having little police presence in rural areas is indicative of tolerance for reckless driving. Oppositely, there is evidence of heavy enforcement of traffic laws in the city (e.g., police officers and photo radar), suggesting to P3 that reckless driving is not tolerated in this setting. Though she has never been ticketed for a driving offense, backing into a parked car strongly impacted P3's MM of driving and reinforced that there is no leniency in urban areas for transgressing traffic laws - largely through the insurance process she had to engage in following the incident.</p>
<p>Source – Other Drivers (community, strangers, etc.)</p>	<p>And other people are driving, and you have to pay attention to- there's just lots of things you have to look out for in the city rather than rurally.</p> <p>I'm always worried about how other people drive rather than myself.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - other people are driving ... there's just lots of things you have to look out for in the city rather than rurally - always worried about how other people drive

	<p>E: Do you feel like you adjust your driving to others then? So, like if people are driving crazy on icy roads-</p> <p>P: Yes, I do. If I wake up and see that it's snowed, and melted and then froze again, then I definitely like, leave extra time for people who don't drive as cautiously as I do.</p> <p>E: Yeah similar with other general drivers and if you see your sister driving aggressively, does that make you drive more cautiously?</p> <p>P: Yeah, I would think so. Yeah ... Just like, knowing that other people are like that, makes me change my driving so that I'm not the one getting into an accident.</p> <p>In the city, you have to watch for lights and people coming up behind you and people coming up in other lanes.</p> <p>On the news ... five pedestrians in the last five days have been hit ... An old lady got hit by a person crossing and she died ... Like people are actually getting hit.</p> <p>P: When I actually first moved up to the city, I can't remember what was happening but I was gonna change lanes, and this person was way in front of me ... They were so far away, and then I was like "okay I'm good to go" and then they were there again, so.</p> <p>E: Are there any sort of change in your driving from that?</p> <p>P: More cautious. Super scary when that happens.</p>	<ul style="list-style-type: none"> - wake up and see that it's snowed ... I definitely like, leave extra time for people who don't drive as cautiously as I do - knowing that other people are like that, makes me change my driving - in the city, you have to watch for lights and people coming up behind you and people coming up in other lanes - [pedestrians] are actually getting hit [in the city] - was gonna change lanes, and this person ... They were so far away ... and then they were there again ... More cautious [driving now]. Super scary when that happens <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Other Drivers → MM Driving - IM ← Other Drivers - CM Urban → Other Drivers → MM Driving <p><i>Concluded level:</i> MODERATE. Other drivers appear to be highly formative of P3's MM of driving, largely in informing her individual mental model. The mere presence of other vehicles in the city forces P3 to drive more cautiously. Driving alongside other drivers on the highway also increases the caution with which P3 drives. Essentially, P3 adjusts her driving to account for unsafe practices of other drivers. News stories of other drivers have also conveyed to P3 that the cultural model of rural driving is hazardous, as it is not uncommon for pedestrians to be struck by vehicles.</p>
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Participant 4 (4366)

Construct	Transcript Excerpts	Analysis
<p>Model – Cultural Model of Rural Driving</p>	<p>Speeding wasn't really taboo I guess. It was allowed [by parents] to the point of still being safe.</p> <p>Doing so much highway driving, like we've had radar detectors and stuff. I know a lot of people are against that sort of stuff because it kind of encourages speeding in a way, but in my opinion that isn't true. Sometimes it keeps in check ... So, [brother] does speed. Like, he doesn't want to get a ticket, but it doesn't make him speed dangerously. Like it's not like he's going a buck 70 down the road. It's just like, you're going like 110 but without getting a ticket.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - speeding wasn't really taboo ... allowed [by parents] to the point of still being safe - we've had radar detectors ... kind of encourages speeding in a way, but in my opinion that isn't true - friends in high school drink and drive, or backroad cruising - been super against [drinking and driving] for <u>my whole life</u> - drinking and driving is bad. They tell you that in school, but it pretty much should be common sense - there was a lot of students at our school who would [drink and drive]

<p>I haven't been in the vehicle, but friends in high school drink and drive, or backroad cruising is what a lot of people do.</p> <p>That's something that I've been super against for <u>my whole life</u>. Like drinking and driving is bad. They tell you that in school, but it pretty much should be common sense. That's one thing that has affected me as a driver.</p> <p>So that's definitely something that I've noticed a lot when I came to boarding school here, there wasn't as much supervision as they probably should've then. So, there was a lot of students at our school who would [drink and drive].</p> <p>Luckily nobody ever got in accidents [at school from drinking and driving], but it was definitely obviously wrong. That's something that affected me more too and just made me want to do less. Even though everyone else found it was okay.</p> <p>Well just when I- I lived in Alberta for the first 10 years of my life and there were several large accidents in the area that I was living in. And my brother is a few years older and he plays hockey with a bunch of the kids [who got in accidents]. So when I came to boarding school here I was like "oh drinking and driving is bad", but then as I got older a lot of my friends were doing it and I was like "oh I still think this is bad" but it made me wanted to do it less because I knew how unsafe it was and even talking to them, I was like "you guys probably shouldn't do this.</p> <p>I would say probably in high school definitely was the most that I've seen [people drink and drive].</p> <p>I think a lot of people are really set in their ways ... most people, at least from rural areas, they start drinking when they're a lot younger so.</p> <p>I: People start driving a lot younger too in rural? P: Yeah. I would say so.</p> <p>My grandparents had a really big farm. Like it was really rural. Like it was 18 miles from the nearest town, so I learned to drive really young</p>	<ul style="list-style-type: none"> - everyone else found [drinking and driving] was okay - my brother is a few years older and he plays hockey with a bunch of the kids [who got in drunk driving accidents] - as I got older a lot of my friends were [drinking and driving] - in high school definitely was the most that I've seen [people drink and drive] - most people, at least from rural areas, they start drinking when they're a lot younger so ... Start driving a lot younger too - I learned to drive really young ... I think that's why a lot of rural kids learn to drive young is just maybe for safety reasons I guess ... not that it should be done in regular situations, but more just for emergencies I guess - I definitely learned how to drive a combine before I learned how to drive a car ... practical skills to have and ... I can work - in driver's education, they discuss drunk driving ... that probably affected the way that I think about it now for sure - going too fast on washboards is really bad; rural kids know that - started driving a dirt bike when I was four ... I started learning to drive cars when I was about 10 just on the farm ... my parents were never super nervous about doing things like that - a lot of parents never let their kids touch a dirt bike or things like that in their life - they always made sure I was wearing a helmet and things like that - when I did get my learners [dad] took me out to a lake to practice defensive driving on ice <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Observation and Modelling → MM Driving - CM Rural → Overt Verbal Communication → MM Driving - CM Rural → Parenting Style → MM Driving - CM Rural → (-) Punishment → MM Driving - CM Rural → Monitoring → MM Driving - CM Rural → Family → MM Driving - CM Rural → Friends and Peers → MM Driving - CM Rural → (-) Driving Authority → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - parents' rules and guidelines/permissiveness of driving at a young age
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<p>because of that. I think that's why a lot of rural kids learn to drive young is just maybe for safety reasons I guess. Which sounds weird because you're letting a 10-year-old drive but just to be able to be like, "oh if you're stuck at the farm and if there is a fire, you need to drive somewhere else", or if somebody's hurt. Things like that. So, I think there are reasons behind it, not that it should be done in regular situations, but more just for emergencies I guess.</p> <p>I definitely learned how to drive a combine before I learned how to drive a car ... I think these are practical skills to have and then it's also just helpful to have- like I can work at a job that requires me to transport things and trailers and things like that.</p> <p>I would say that in driver's education, they discuss drunk driving and my high school had- it's called the PARTY program ... those conversations that they had, they were about drinking and driving and just being safe on the road and things like that. So that probably affected the way that I think about it now for sure.</p> <p>And going too fast on washboards is really bad; rural kids know that.</p> <p>Growing up I rode a lot of quads and dirt bikes and things like that. So, I kind of had to learn about speeds and how to turn and I know that isn't a car but things like that. But I learned pretty young. I probably started driving a dirt bike when I was four ... I started learning to drive cars when I was about 10 just on the farm, with sitting on someone's lap, but just doing that. And then my parents were never super nervous about doing things like that. And a lot of parents never let their kids touch a dirt bike or things like that in their life. So, I think that describes their parenting style well. It's not like they were letting me be unsafe, they always made sure I was wearing a helmet and things like that. They just let me kind of run around on a dirt bike. It's not like they were super controlling; they were still making sure everything is safe.</p> <p>Yeah being rural and also my dad being a driver trainer. He used to be really on me about how I drive. I don't drive with him much anymore but that was unique for me at least because when I did get my learners he took me out to a lake to practice defensive driving on ice. It was</p>	<ul style="list-style-type: none"> - friends' actions and stories - (lack of) negative repercussions of unsafe driving (e.g., drunk driving accidents) <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - Interesting that most people find drinking and driving to be okay, but P4 is very much against it. Perhaps resilience comes from P4's dad being an instructor, having positive experiences watching her parents drive, and/or driver's education <p><i>Conclusion:</i> The cultural model of rural driving as understood by P4 gives consideration to driving safety through parents (e.g., driving supervision) and schools ("in driver's education, they discuss drunk driving ... that probably affected the way that I think about it now for sure". Yet, unsafe driving practices are also part of this model given the commonality of speeding, radar detectors, and drunk driving. While it seems that most people are aware of these driving practices being unsafe, they carry them out regardless. This disregard for safety may stem from the perceived benefits of driving (e.g., practicality, emergencies, etc.) or tendency for rural youth to start drinking at a relatively young age. Driving at an early age is also normal within this model (e.g., P4 drove dirt bikes at 4 years old; cars at around 10). While P4's parents were supportive of this early driving tendency, she feels that many parents are not.</p>
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	<p>terrifying. I was 14 and 10 km into my first driving experience. So that was definitely unique.</p>	
<p>Model – Individual Model of Driving</p>	<p>I guess most of my driving experience is from highway driving.</p> <p>I'm not like a nervous driver- like I don't know if that makes me- not unsafe, but more into it. Like into my anger I guess rather than being so cautious. I'm more just like "get out of my way".</p> <p>I: You mentioned speeding- like speeding not being taboo and generally accepted. P: Yeah. So, I don't want to say accepted; it's not like we're speed demons or anything. But I guess because the amount of distance driving I've grown up with, it's not about getting the drive through faster or anything. It's just being able to realize, "oh there's not that much traffic on the road"- I don't really know how to explain it. It sounds really unsafe when I talk about it, wow [laughs].</p> <p>But you know, being able to pass other vehicles if somebody is going under the speed limit. Like I'm not afraid to pass people who are going slower than me I guess.</p> <p>I definitely learned how to drive a combine before I learned how to drive a car ... I think these are practical skills to have and then it's also just helpful to have- like I can work at a job that requires me to transport things and trailers and things like that.</p> <p>Growing up I rode a lot of quads and dirt bikes and things like that. So, I kind of had to learn about speeds and how to turn and I know that isn't a car but things like that. But I learned pretty young. I probably started driving a dirt bike when I was four ... I started learning to drive cars when I was about 10 just on the farm, with sitting on someone's lap, but just doing that ... It's not like they were letting me be unsafe, they always made sure I was wearing a helmet and things like that. They just let me kind of run around on a dirt bike. It's not like they were super controlling; they were still making sure everything is safe.</p> <p>I don't find myself a dangerous driver obviously, but there are situations where- it's not like I've driven under the speed limit every time I'm in a vehicle. So, I don't drive dangerously in my opinion I guess.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - most of my driving experience is from highway driving - I'm not like a nervous driver ... more just like "get out of my way" - it's not about getting the drive through faster or anything. It's just being able to realize, "oh there's not that much traffic on the road" - not afraid to pass people who are going slower than me - learned how to drive a combine before I learned how to drive a car ... I think these are practical skills to have and then it's also just helpful to have - growing up I rode a lot of quads and dirt bikes and things like that. So, I kind of had to learn about speeds and how to turn - started driving a dirt bike when I was four ... I started learning to drive cars when I was about 10 just on the farm, with sitting on someone's lap - just let me kind of run around on a dirt bike - I don't find myself a dangerous driver obviously, but there are situations where- it's not like I've driven under the speed limit every time I'm in a vehicle - I've gotten speed camera tickets. Or at least I thought it did ... I was terrified that I was going to get a ticket - had a couple people be like "oh speed up, let's hurry up and just get to the city already" ... I don't usually listen to them ... Yeah, I don't feel very pressured - I'm kind of a bossy person so if somebody is telling me to speed up I'll tell them no <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - IM → (-) Overt Verbal Communication - IM ← Parenting Style - IM ← Punishment - IM → (-) Monitoring - IM ← Parents - IM → (-) Friends and Peers - IM ← Driving Authority <p><i>Fostered by:</i></p>

	<p>Yeah. I've gotten speed camera tickets. Or at least I thought it did. The flash went off and it scared me because I was terrified that I was going to get a ticket. So, I guess that's something. Maybe ... Those ones aren't as personal though because you don't have a cop at your window.</p> <p>So, I've had a couple people be like "oh speed up, let's hurry up and just get to the city already". I've had people pay attention to what speed going. I don't usually listen to them ... Yeah, I don't feel very pressured. I'm kind of a bossy person so if somebody is telling me to speed up I'll tell them no.</p>	<ul style="list-style-type: none"> - learning to drive from a young age - parents' support and guidance - fear of legal repercussions for unsafe driving <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - P4 is a confident driver <p><i>Conclusion:</i> From a young age (4 years old) P4 has developed an individual model of driving by driving dirt bikes, which was furthered at about 10 years old when she started driving cars, and then underwent immense growth at legal driving age with extensive highway driving. P4 is grateful for learning to drive from a young age, mostly for practical reasons (job opportunities, confidence). It seems that P4 is a confident, bordering on aggressive (expressive of angry driving style), driver who is intolerant of slower drivers (passes them on the highway, "get out of my way", etc.). Laws are seen by P4 to be flexible to a degree (e.g., will speed), but is kept in check in part by the threat of legal repercussions for unsafe driving. Although she resists requests of close others to drive faster, this may foremost be owed to P4's "bossy" personality (not necessarily because it's unsafe).</p>
<p>Model – Cultural Model of Urban Driving</p>	<p>Like even Saskatoon doesn't have much traffic compared to other cities but it's still a lot more than I grew up with I guess. I don't know, I just get really mad. I live on Preston [Avenue in Saskatoon] where there is that four-way stop. So, that's like the most frustrating four-way stop ever. I get really mad there all the time. Some people just cut me off and it's like "oh my goodness".</p> <p>A lot more vehicles on the road.</p> <p>People still [drink and drive]- like friends I met in university do it too.</p> <p>I would say probably in high school definitely was the most that I've seen [people drink and drive]. I've had a few situations in university.</p> <p>I've never had a driving infraction, I've never had speeding tickets or anything fortunately. I think my parents would've developed more rules if I had been a more reckless driver I guess.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - Saskatoon doesn't have much traffic ... but it's still a lot more than I grew up with - I just get really mad here - people just cut me off and it's like "oh my goodness" - a lot more vehicles on the road - people still [drink and drive]- like friends I met in university do it too - in high school definitely was the most that I've seen [people drink and drive]. I've had a few situations in university - I've never had a driving infraction, I've never had speeding tickets or anything fortunately. I think my parents would've developed more rules if I had been a more reckless driver <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Urban → Observation and Modelling → MM Driving - CM Urban → Punishment → MM Driving - CM Urban → (-) Punishment → MM Driving

		<ul style="list-style-type: none"> - CM Urban → Driving Authority → MM Driving - CM Urban → (-) Driving Authority → MM Driving - CM Urban → Other Drivers → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - others' driving behaviours (mostly unsafe) <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - potentially, little urban driving experience (given that P4 was raised rurally and is 18 years old, she may have only recently moved to the city) <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - city driving is more frustrating for P4 than rural driving <p><i>Conclusion:</i> The private cultural model of urban driving for P4 is one of primarily aggressive and unsafe drivers (drunk driving, cutting people off, etc.), though she states drunk driving is seen by her as less a problem here than rural communities. Due to the number and behaviour of other drivers, urban driving is more frustrating for P4 than rural driving. Much less is spoken to urban driving than rural driving by P4, indicating she may not have a firm conceptualization of this cultural model (which, given her young age, would make sense if she only moved to Saskatoon for university).</p>
<p>Mode – Observation and Modeling</p>	<p>I get a lot more frustrated behind the wheel I would say [in urban areas]. I guess I'm not used to driving with that many people around other than just on like the big highway in Alberta.</p> <p>Like even Saskatoon doesn't have much traffic compared to other cities but it's still a lot more than I grew up with I guess. I don't know, I just get really mad. I live on Preston [Avenue in Saskatoon] where there is that four-way stop. So, that's like the most frustrating four-way stop ever. I get really mad there all the time. Some people just cut me off and it's like "oh my goodness".</p> <p>I've seen my parents do a lot of that driving. Growing up, we did the five-hour drive probably about once a month. So, speeding wasn't really taboo I guess. It was allowed to the point of still being safe.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - not used to driving with that many people around - I just get really mad ... some people just cut me off - I've seen my parents do a lot of that driving ... we did the five-hour drive probably about once a month ... speeding wasn't really taboo ... It was allowed to the point of still being safe - my dad ... so into defensive driving like in winter conditions - seeing other drivers get angry on the road ... I'll try to either move away from that situation or just kind of get angry also - been flipped off while driving and oh my goodness it just makes you angry - my brother has [a radar detector] ... So, he does speed. Like, he doesn't want to get a ticket, but it doesn't make him speed dangerously - people still [drink and drive]

	<p>Ever since I was younger too, my dad, since he's so into defensive driving like in winter conditions.</p> <p>seeing other drivers get angry on the road also. Like I find like, "oh gosh", I'll try to either move away from that situation or just kind of get angry also. We've all been flipped off while driving and oh my goodness it just makes you angry.</p> <p>We've had radar detectors and stuff. I know a lot of people are against that sort of stuff because it kind of encourages speeding in a way, but in my opinion that isn't true. Sometimes it keeps in check ... Not in my car, no. My brother has one ... So, he does speed. Like, he doesn't want to get a ticket, but it doesn't make him speed dangerously. Like it's not like he's going a buck 70 down the road. It's just like, you're going like 110 but without getting a ticket.</p> <p>People still [drink and drive]- like friends I met in university do it too.</p> <p>Luckily nobody ever got in accidents [at school from drinking and driving], but it was definitely obviously wrong. That's something that affected me more too and just made me want to do less. Even though everyone else found it was okay.</p> <p>I would say probably in high school definitely was the most that I've seen [people drink and drive]. I've had a few situations in university.</p>	<ul style="list-style-type: none"> - nobody ever got in accidents [at school from drinking and driving], but it was definitely obviously wrong ... Made me want to do less. Even though everyone else found it was okay. - in high school definitely was the most that I've seen [people drink and drive]. I've had a few situations in university <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Urban → Observation and Modeling → → MM Driving - Observation and Modeling ← Family - Observation and Modeling ← Other Drivers <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - actions of parents, brother, and other drivers (for some behaviours) <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - finding others' behaviours to be too unsafe - others' drinking and driving <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - when it comes to drinking and driving only, seeing others do it acts as an example of what <i>not</i> to do <p><i>Concluded level:</i> MODERATE. The influence that observation and modeling have on P4 developing her current MM of driving is dependent on the source involved. With parents, P4 speaks of fairly neutral driving practices (speeding, but within reason for highway driving), as well as safe ones (e.g., defensive driving), that she has adopted. With her brother, P4 sees (debatably) unsafe driving behaviours (using radar detector and speeding) that also impact her MM of driving. Then, with other drivers, P4 finds it hard to resist reciprocating unsafe driving behaviour (e.g., other drivers "getting angry"), except for drinking and driving.</p>
Mode – Overt Verbal Communication	My dad used to be a driver trainer, so he actually taught me how to be do defensive driving and stuff. So that was kind of a unique experience I guess.	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - dad ... taught me how to be do defensive driving - [Dad] knows a little bit too much I'd say ... affected the way that I drive now

<p>[Dad] knows a little bit too much I'd say [laughs]. So, I guess that's also affected the way that I drive now.</p> <p>And then I also took driver training through SGI or whatever you do in high school here. So that also helps to learn.</p> <p>But also, a thing that my parents stressed when I was first learning how to drive, like doing my learners license, was the speed limit is the speed limit but also if you are speeding to make sure- well they didn't say that- but just to be safe on the road ... like you don't have to obey the rules at all costs.</p> <p>I haven't been in the vehicle, but friends in high school drink and drive, or backroad cruising is what a lot of people do.</p> <p>That's something that I've been super against for my whole life. Like drinking and driving is bad. They tell you that in school, but it pretty much should be common sense. That's one thing that has affected me as a driver.</p> <p>And it's kind of discouraging to try and discourage [peers from drinking and driving] and I guess because they always get mad at you and then it's like, "okay, make your mistakes".</p> <p>I would say that in driver's education, they discuss drunk driving and my high school had- it's called the PARTY program ... those conversations that they had, they were about drinking and driving and just being safe on the road and things like that. So that probably affected the way that I think about it now for sure.</p> <p>My brother is older, so he started learning to drive before I did with his learners ... So, I think those conversations were just going on in the background, but I was picking a lot of it up, just my dad talking about like, "oh backing off of other vehicles" ... So that all affected the way that I drive now I would say because I think about it every time- like when someone's riding me on the highway or something like that, I feel- like I consciously think about that and back off of other vehicles ... And then of course, my dad had the same conversations with me later, but I picked it up a lot up earlier with him talking to my brother so.</p>	<ul style="list-style-type: none"> - took driver training through SGI or ... high school ... So that also helps to learn - a thing that my parents stressed ... was the speed limit is the speed limit but also if you are speeding to make sure- well ... you don't have to obey the rules at all cost - friends in high school drink and drive, or backroad cruising - drinking and driving is bad. They tell you that in school, but it pretty much should be common sense. That's one thing that has affected me as a driver - discouraging to try and discourage [peers from drinking and driving] and I guess because they always get mad - in driver's education, they discuss drunk driving ... that probably affected the way that I think about it now for sure - those conversations were just going on in the background, but I was picking a lot of it up - dad talking about like, "oh backing off of other vehicles" ... I consciously think about that and back off of other vehicles - my dad had the same conversations with me later, but I picked it up a lot up earlier with him talking to my brother - [when asked about the most influential mode] probably just the way that I was taught to drive ...being rural and also my dad being a driver trainer <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Overt Verbal Communication → MM Driving - IM → (-) Overt Verbal Communication - Overt Verbal Communication ↔ Family - Overt Verbal Communication ← Driving Authority <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - ineffectiveness of asking friends to not drink and drive <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - cited by participant as one of three most important modes <p><i>Concluded level:</i> HIGH. The major role that overt verbal communication plays in transmitting cultural models of driving to P4 is apparent throughout her narrative: it is one of the three modes identified by P4 as being most important; the words of P4's dad (former driver instructor) are brought up several times</p>
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		<p>in having a large impact (e.g., “I consciously think about that and back off of other vehicles”); and passive listening of open communication between others (dad and brother) affected P4’s MM development even before driving age. Driver’s training in high school was also instructive. However, stories of friends drinking and driving formed a negative perception of drinking and driving from a young age. Overall, these communications have conveyed a fairly safe model of driving, though parents taught P4 that driving laws are not concrete (which is how she drives now).</p>
<p>Mode – Parenting Style (Regarding Driving)</p>	<p>My grandparents had a really big farm ... So I learned to drive really young because of that. I think that's why a lot of rural kids learn to drive young is just maybe for safety reasons I guess. Which sounds weird because you're letting a 10-year-old drive but just to be able to be like, "oh if you're stuck at the farm and if there is a fire, you need to drive somewhere else", or if somebody's hurt. Things like that. So, I think there are reasons behind it, not that it should be done in regular situations, but more just for emergencies I guess.</p> <p>I definitely learned how to drive a combine before I learned how to drive a car.</p> <p>I probably started driving a dirt bike when I was four ... I started learning to drive cars when I was about 10 just on the farm, with sitting on someone's lap, but just doing that. And then my parents were never super nervous about doing things like that. And a lot of parents never let their kids touch a dirt bike or things like that in their life. So, I think that describes their parenting style well. It's not like they were letting me be unsafe, they always made sure I was wearing a helmet and things like that. They just let me kind of run around on a dirt bike. It's not like they were super controlling; they were still making sure everything is safe.</p> <p>[Parents] made sure that I did get a vehicle that had a really high safety rating because I live so far away from them. There wasn't a lot of rules with the car because the school that I went to had rules in place. Like there was a curfew and things like that</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - I learned to drive really young ... just to be able to be like, "oh if you're stuck at the farm and if there is a fire, you need to drive somewhere else", or if somebody's hurt ... not that it should be done in regular situations, but more just for emergencies - learned how to drive a combine before I learned how to drive a car - started driving a dirt bike when I was four ... I started learning to drive cars when I was about 10 just on the farm, with sitting on someone's lap ... parents were never super nervous about doing things like that - it's not like they were letting me be unsafe, they always made sure I was wearing a helmet and things like that. They just let me kind of run around on a dirt bike - [parents] made sure that I did get a vehicle that had a really high safety rating - my parents would've developed more rules if I had been a more reckless driver ... I guess they didn't really have a reason to have them - There was a lot of rules around on my car, they just were my parents' rules. They were the school's - [when asked about the most influential mode] probably just the way that I was taught to drive ... like where I picked that up ... Yeah being rural and also my dad being a driver trainer. He used to be really on me about how I drive. <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Parenting Style → MM Driving - IM ← Parenting Style - Parenting Style ↔ Family

	<p>I think my parents would've developed more rules if I had been a more reckless driver I guess. But I guess they didn't really have a reason to have them.</p> <p>There was a lot of rules around on my car, they just were my parents' rules. They were the school's.</p> <p>[When asked about the most influential mode] Probably just the way that I was taught to drive. Just because I had a unique experience ... Yes, so probably those two categories, but mainly how I was taught to drive, like where I picked that up ... Yeah being rural and also my dad being a driver trainer. He used to be really on me about how I drive.</p>	<p><i>Other comments:</i></p> <ul style="list-style-type: none"> - support for driving at young age seen as practical (e.g., help in an emergency) - cited by participant as one of three most important modes <p><i>Concluded level:</i> HIGH. Parenting style was one of the three modes identified by P4 as most influential in advancing her MM of driving. From a young age, P4's parents permitted her to drive, mostly for practical reasons (e.g., emergencies, farm work); not for leisure. Throughout her life, P4's parents have been focused on P4's driving safety (e.g., protective equipment, physical presence, vehicle with high safety rating). Once driving age, parents were respectful of P4's freedom, setting few rules – perhaps because P4 had not provided a reason for them to create strict rules (e.g., had not demonstrated poor driving).</p>
<p>Mode – Punishment</p>	<p>Luckily nobody ever got in accidents [at school from drinking and driving], but it was definitely obviously wrong. That's something that affected me more too and just made me want to do less.</p> <p>Well just when I- I lived in Alberta for the first 10 years of my life and there were several large accidents in the area that I was living in. And my brother is a few years older and he plays hockey with a bunch of the kids [who got in accidents]. So when I came to boarding school here I was like "oh drinking and driving is bad"</p> <p>And it's kind of discouraging to try and discourage [peers from drinking and driving] and I guess because they always get mad at you and then it's like, "okay, make your mistakes".</p> <p>And then I've been in the vehicle when- I wasn't driving but my parents were driving and there were accidents like just on highways and stuff. Luckily, we all had cell phones then, so we could just call 911 but all those things just make you think about the way that you drive ... It does make you think about it but it's not something that's like I get in the vehicle every time and, "oh don't hit the median" ... I just kind of remember, "don't do this".</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - nobody ever got in accidents [at school from drinking and driving], but it was definitely obviously wrong. That's something that affected me more too and just made me want to do less - there were several large accidents in the area ... my brother is a few years older and he plays hockey with a bunch of the kids [who got in accidents]. So ... I was like "oh drinking and driving is bad" - "okay, make your mistakes" - I've been in the vehicle when ... there were accidents ... make you think about the way that you drive ... It does make you think about it but it's not something that's like I get in the vehicle every time and, "oh don't hit the median" ... I just kind of remember, "don't do this" - I've never had a driving infraction, I've never had speeding tickets or anything fortunately. I think my parents would've developed more rules if I had been a more reckless driver - I've been really lucky - I've gotten speed camera tickets. Or at least I thought it did ... I was terrified that I was going to get a ticket - my dad got a few speeding tickets ... they get pretty expensive if you get more than one. I think they do drive differently

	<p>I've never had a driving infraction, I've never had speeding tickets or anything fortunately. I think my parents would've developed more rules if I had been a more reckless driver I guess.</p> <p>I: You already said that you haven't had any infractions or anything. P: Yeah, I've been really lucky. I: Lucky or just a cautious driver? P: Yeah. I don't find myself a dangerous driver obviously, but there are situations where- it's not like I've driven under the speed limit every time I'm in a vehicle.</p> <p>Yeah. I've gotten speed camera tickets. Or at least I thought it did. The flash went off and it scared me because I was terrified that I was going to get a ticket. So, I guess that's something. Maybe ... Those ones aren't as personal though because you don't have a cop at your window.</p> <p>I would say, my dad got a few speeding tickets in a row is starting to rack up some dollars on that. Like they get pretty expensive if you get more than one. I think they do drive differently.</p> <p>[When asked about the most influential mode] I would say not getting any tickets makes me a better driver than other people ... I would say that if I did get a ticket I would probably slow down. Yes, so probably those two categories, but mainly how I was taught to drive, like where I picked that up.</p>	<p>- [when asked about the most influential mode] I would say not getting any tickets makes me a better driver than other people ... I would say that if I did get a ticket I would probably slow down</p> <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → (-) Punishment → MM Driving - IM ← Punishment - CM Urban → Punishment → MM Driving - CM Urban → (-) Punishment → MM Driving - Punishment ↔ Driving Authority <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - never having received legal reprimand for driving - learning vicariously through others' punishments <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - feeling lucky to have not been punished <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - cited by participant as one of three most important modes <p><i>Concluded level:</i> HIGH. Stated as one of the three heaviest influences on P4's MM of driving, punishment has been experienced by P4 primarily in terms of legality and safety. Seeing others get into accidents or thinking she would receive a ticket reinforces P4's safe driving practices ("I would say that if I did get a ticket I would probably slow down"). While P4 states that punishments do stick in her mind, they aren't thought about constantly while driving. P4 has not been legally reprimanded before, suggesting to P4 that she is a good driver ("not getting any tickets makes me a better driver than other people"), though she feels that she is also lucky to have not received a ticket yet.</p>
Mode – Monitoring	<p>So that's definitely something that I've noticed a lot when I came to boarding school here, there wasn't as much supervision as they probably should've then. So, there was a lot of students at our school who would [drink and drive].</p> <p>I'd notice [friends] paying attention to my driving habits because driving habits here are a lot different than their driving habits there ... So, I've had a couple people be like "oh speed up, let's hurry up and</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - wasn't as much supervision [at boarding school] ... there was a lot of students at our school who would [drink and drive] - notice [friends] paying attention to my driving habits - I've had a couple people be like "oh speed up, let's hurry up and just get to the city already" ... I don't usually listen to them ... Yeah, I don't feel very pressured

	<p>just get to the city already". I've had people pay attention to what speed going. I don't usually listen to them ... Yeah, I don't feel very pressured. I'm kind of a bossy person so if somebody is telling me to speed up I'll tell them no.</p>	<p>- I'm kind of a bossy person so if somebody is telling me to speed up I'll tell them no</p> <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural -> Monitoring → MM Driving - IM → (-) Monitoring <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - potentially, individual model of driving that is unaccommodating of passengers' comments <p><i>Concluded level:</i> LOW. Though data is sparse regarding this mode, it seems it minimally conveys to P4 cultural models of driving. The only substantial monitoring seems to be from P4's friends which does not seem to influence her MM of driving and is resisted, perhaps via her individual model of driving.</p>
<p>Mode – Print Educational Material</p>	<p>And then I also took driver training through SGI or whatever you do in high school here. So that also helps to learn.</p> <p>Yeah, my dad was the one who was kind of helping me learn how to drive, doing the whole book that you do</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - helps to learn - dad was the one who was kind of helping me learn how to drive, doing the whole book that you do <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - Print Educational Material ← (//) Family <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - involvement of father <p><i>Concluded level:</i> MODERATE. Although there is only a miniscule amount of discussion on this mode, P4 does identify it as helping her to learn, passing on cultural models of driving. The involvement of P4's father could impact the strength of this mode considering his influential role in P4's MM development.</p>
<p>Source – Family</p>	<p>My dad used to be a driver trainer, so he actually taught me how to be do defensive driving and stuff. So that was kind of a unique experience I guess.</p> <p>I've seen my parents do a lot of that driving. Growing up, we did the five-hour drive probably about once a month. So, speeding wasn't really taboo I guess. It was allowed to the point of still being safe.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - dad used to be a driver trainer ... taught me how to be do defensive driving - seen my parents do a lot of that driving ... five-hour drive probably about once a month - speeding wasn't really taboo ... allowed to the point of still being safe - it's not like we're speed demons or anything

<p>Ever since I was younger too, my dad, since he's so into defensive driving like in winter conditions.</p> <p>I: You mentioned speeding- like speeding not being taboo and generally accepted.</p> <p>P: Yeah. So, I don't want to say accepted; it's not like we're speed demons or anything. But I guess because the amount of distance driving I've grown up with, it's not about getting the drive through faster or anything. It's just being able to realize, "oh there's not that much traffic on the road"- I don't really know how to explain it. It sounds really unsafe when I talk about it, wow [laughs].</p> <p>But also, a thing that my parents stressed when I was first learning how to drive, like doing my learners license, was the speed limit is the speed limit but also if you are speeding to make sure- well they didn't say that- but just to be safe on the road ... like you don't have to obey the rules at all costs.</p> <p>we've had radar detectors and stuff. I know a lot of people are against that sort of stuff because it kind of encourages speeding in a way, but in my opinion that isn't true. Sometimes it keeps in check ... Not in my car, no. My brother has one ... So, he does speed. Like, he doesn't want to get a ticket, but it doesn't make him speed dangerously. Like it's not like he's going a buck 70 down the road. It's just like, you're going like 110 but without getting a ticket.</p> <p>My grandparents had a really big farm. Like it was really rural. Like it was 18 miles from the nearest town, so I learned to drive really young because of that. I think that's why a lot of rural kids learn to drive young is just maybe for safety reasons I guess.</p> <p>My brother is older, so he started learning to drive before I did with his learners ... So, I think those conversations were just going on in the background, but I was picking a lot of it up, just my dad talking about like, "oh backing off of other vehicles" ... So that all affected the way that I drive now I would say because I think about it every time- like when someone's riding me on the highway or something like that, I feel- like I consciously think about that and back off of other vehicles ... And then of course, my dad had the same conversations</p>	<ul style="list-style-type: none"> - just being able to realize, "oh there's not that much traffic on the road" - a thing that my parents stressed ... was the speed limit is the speed limit but also if you are speeding to make sure- well ... you don't have to obey the rules at all cost - we've had radar detectors and stuff - my brother has [a radar detector] ... So, he does speed. Like, he doesn't want to get a ticket, but it doesn't make him speed dangerously - my grandparents had a really big farm ... So I learned to drive really young because of that - those conversations were just going on in the background, but I was picking a lot of it up - dad talking about like, "oh backing off of other vehicles" ... I consciously think about that and back off of other vehicles - my dad had the same conversations with me later, but I picked it up a lot up earlier with him talking to my brother - started driving a dirt bike when I was four ... I started learning to drive cars when I was about 10 just on the farm, with sitting on someone's lap ... parents were never super nervous about doing things like that - it's not like they were letting me be unsafe, they always made sure I was wearing a helmet and things like that. They just let me kind of run around on a dirt bike - my dad was the one who was kind of helping me learn how to drive - [when asked about the most influential mode] probably just the way that I was taught to drive ... my dad being a driver trainer. He used to be really on me about how I drive <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Family → MM Driving - Family → Observation and Modeling - Family ↔ Parenting Style <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - dad's previous occupation of driver trainer - frequent long drives during childhood <p><i>Other comments:</i></p>
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	<p>with me later, but I picked it up a lot up earlier with him talking to my brother so.</p> <p>I probably started driving a dirt bike when I was four ... I started learning to drive cars when I was about 10 just on the farm, with sitting on someone's lap, but just doing that. And then my parents were never super nervous about doing things like that. And a lot of parents never let their kids touch a dirt bike or things like that in their life. So, I think that describes their parenting style well. It's not like they were letting me be unsafe, they always made sure I was wearing a helmet and things like that. They just let me kind of run around on a dirt bike. It's not like they were super controlling; they were still making sure everything is safe.</p> <p>Yeah, my dad was the one who was kind of helping me learn how to drive, doing the whole book that you do.</p> <p>[When asked about the most influential mode] Probably just the way that I was taught to drive. Just because I had a unique experience ... Yeah being rural and also my dad being a driver trainer. He used to be really on me about how I drive. I don't drive with him much anymore but that was unique for me at least because when I did get my learners he took me out to a lake to practice defensive driving on ice. It was terrifying. I was 14 and 10 km into my first driving experience. So that was definitely unique.</p>	<p>- dad made a huge impact on P4's MM</p> <p><i>Concluded level:</i> HIGH. P4's family, especially her father (former driver trainer; "I consciously think about [father's driving advice] and back off of other vehicles") have been a huge source of impact on her MM of driving. Throughout childhood, P4 was exposed to parents' driving frequently on long family drives, on which they exemplified that traffic laws (e.g., speed limits) can be broken as long as the driver is vigilant (which reflects P4's current driving practices). Despite espousing this malleability of the law, P4's parents have always stressed safety (e.g., defensive driving). Similar teachings were gleaned by P4 from passively listening to conversations between others (dad and brother). P4's grandparents have also impacted her MM of driving development; namely, by owning the farm on which she learned to first drive at a very young age (dirt bike at ~4; car at ~10).</p>
<p>Source – Friends and Peers</p>	<p>I haven't been in the vehicle, but friends in high school drink and drive, or backroad cruising is what a lot of people do.</p> <p>Well just when I- I lived in Alberta for the first 10 years of my life and there were several large accidents in the area that I was living in. And my brother is a few years older and he plays hockey with a bunch of the kids [who got in accidents]. So when I came to boarding school here I was like "oh drinking and driving is bad", but then as I got older a lot of my friends were doing it and I was like "oh I still think this is bad" but it made me wanted to do it less because I knew how unsafe it was and even talking to them, I was like "you guys probably shouldn't do this.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - friends in high school drink and drive, or backroad cruising - there were several large accidents in the area ... my brother is a few years older and he plays hockey with a bunch of the kids [who got in accidents]. So ... I was like "oh drinking and driving is bad" - as I got older a lot of my friends were [drinking and driving] - discouraging to try and discourage [peers from drinking and driving] and I guess because they always get mad <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Friends and Peers → MM Rural - Friends and Peers ← (-) IM <p><i>Hampered by:</i></p>

	<p>And it's kind of discouraging to try and discourage [peers from drinking and driving] and I guess because they always get mad at you and then it's like, "okay, make your mistakes".</p>	<p>- perceiving friends' driving behaviours to be bad examples</p> <p><i>Concluded level:</i> MODERATE. Friends and peers have conveyed to P4 the dangers of reckless driving (e.g., drinking and driving), which she has internalized in her MM of driving. That is, P4 resists replicating the reckless behaviours of her friends and peers (via her individual model), taking away from their behaviours only the negative consequences. P4 also expresses frustration in being unable to alter the driving behaviours of her friends and peers.</p>
<p>Source – Driving Authority</p>	<p>And then I also took driver training through SGI or whatever you do in high school here. So that also helps to learn.</p> <p>That's something that I've been super against for my whole life. Like drinking and driving is bad. They tell you that in school, but it pretty much should be common sense. That's one thing that has affected me as a driver.</p> <p>So that's definitely something that I've noticed a lot when I came to boarding school here, there wasn't as much supervision as they probably should've then. So, there was a lot of students at our school who would [drink and drive].</p> <p>I would say that in driver's education, they discuss drunk driving and my high school had- it's called the PARTY program ... those conversations that they had, they were about drinking and driving and just being safe on the road and things like that. So that probably affected the way that I think about it now for sure.</p> <p>I've never had a driving infraction, I've never had speeding tickets or anything fortunately. I think my parents would've developed more rules if I had been a more reckless driver I guess. But I guess they didn't really have a reason to have them.</p> <p>There was a lot of rules around on my car, they just were my parents' rules. They were the school's.</p> <p>Yeah. I've gotten speed camera tickets. Or at least I thought it did. The flash went off and it scared me because I was terrified that I was going to get a ticket. So, I guess that's something. Maybe ... Those ones</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - took driver training through SGI or ... high school ... So that also helps to learn - drinking and driving is bad. They tell you that in school, but it pretty much should be common sense - wasn't as much supervision [at boarding school] ... there was a lot of students at our school who would [drink and drive] - in driver's education, they discuss drunk driving ... that probably affected the way that I think about it now for sure - I've never had a driving infraction, I've never had speeding tickets or anything fortunately. I think my parents would've developed more rules if I had been a more reckless driver - a lot of rules around on my car, they just were my parents' rules. They were the school's - I've gotten speed camera tickets. Or at least I thought it did ... I was terrified that I was going to get a ticket - my dad got a few speeding tickets ... they get pretty expensive if you get more than one. I think they do drive differently - not getting any tickets makes me a better driver <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → (-) Driving Authority → MM Driving - IM ← Driving Authority - CM Urban → Driving Authority → MM Driving - CM Urban → (-) Driving Authority → MM Driving - Driving Authority ↔ Punishment <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - never having received legal reprimand for driving

	<p>aren't as personal though because you don't have a cop at your window.</p> <p>I would say, my dad got a few speeding tickets in a row is starting to rack up some dollars on that. Like they get pretty expensive if you get more than one. I think they do drive differently.</p> <p>I would say not getting any tickets makes me a better driver than other people ... I would say that if I did get a ticket I would probably slow down</p>	<p><i>Concluded level:</i> MODERATE. Driving authority has had modest sway over P4's MM of driving development, namely police officers, boarding school staff, and her driver's education instructor. Though many rules were set at boarding school, it sounds as though they were not well monitored. Although other students would drink and drive, P4 would not, perhaps because of her driver's education ("in driver's education, they discuss drunk driving ... that probably affected the way that I think about it now for sure"). Police officers, by never having ticketed P4, have helped her establish a MM of driving through which she sees herself as a safe driver ("not getting any tickets makes me a better driver than other people"). P4 may also be influenced by driving authorities through her father who has adjusted his behaviour after being ticketed several times.</p>
<p>Source – Other Drivers (community, strangers, etc.)</p>	<p>I get a lot more frustrated behind the wheel I would say [in urban areas]. I guess I'm not used to driving with that many people around other than just on like the big highway in Alberta.</p> <p>Like even Saskatoon doesn't have much traffic compared to other cities but it's still a lot more than I grew up with I guess. I don't know, I just get really mad. I live on Preston [Avenue in Saskatoon] where there is that four-way stop. So, that's like the most frustrating four-way stop ever. I get really mad there all the time. Some people just cut me off and it's like "oh my goodness".</p> <p>seeing other drivers get angry on the road also. Like I find like, "oh gosh", I'll try to either move away from that situation or just kind of get angry also. We've all been flipped off while driving and oh my goodness it just makes you angry.</p> <p>I think a lot of people are really set in their ways ... most people, at least from rural areas, they start drinking when they're a lot younger so.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - not used to driving with that many people around - I just get really mad ... some people just cut me off - seeing other drivers get angry on the road ... I'll try to either move away from that situation or just kind of get angry also - I think a lot of people are really set in their ways <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Urban → Other Drivers → MM Driving - Other Drivers → Observation and Modeling <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - negative emotions that "rub off" on P4 <p><i>Concluded level:</i> MODERATE. Other drivers can be a powerful source of P4's MM development primarily by interfering with or distracting her driving (e.g., cutting her off). However, the influence of these other drivers is mitigated when P4 can convince herself to pay them no attention.</p>
Participant 5 (8414)		
Construct	Transcript Excerpts	Analysis
<p>Model – Cultural Model of Rural Driving</p>	<p>In small towns everyone just slowly drives around because kids randomly jump around on the streets and stuff. In here, that doesn't seem like a problem and everyone else is driving fast, so I try and match the speed.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - everyone just slowly drives around because kids randomly jump around on the streets and stuff

	<p>There's a lot of people in small towns that like to rip around I guess. They like to do tricks, they go on icy roads and speed on them, so they slide around on them and stuff. I don't do that stuff ... I get scared. But I know a lot of people do it.</p> <p>Well the majority of my family is overly cautious driving, like they won't go a kilometre over the speed limit. And my brother especially, he's always hands on 10 and 2 and always like that. So, I guess it's good that they are cautious but sometimes I think it's too much ... From watching them, it's kind of where I got a general idea of how to drive before I even did, which helped me I guess.</p> <p>I don't like the idea of [speeding and doing tricks]. One time I was with people and they were just like ripping around on a grid road. And then he went into a slew and then we had to get someone to pick us up. So, I guess, I dunno, it's scary and I'm against it and I don't like it.</p> <p>Living in a small town, you always have to drive other places to go grocery shopping or do sports or something, so I basically lived in a car as a child.</p> <p>I personally did not [learn to drive at a young age]. I find that the closest thing- like I sat on my mom's lap and drove around on a yard because we lived on a farm. And she controlled the pedals but that's about it. Other than that, I just waited because we didn't farm or anything. So, I didn't have a need to. I knew a lot of kids who drove farm vehicles around before they had their licenses, but we didn't farm so I had no reason.</p> <p>My friends had quads and I'd go over to their house and we would rip around on those a lot.</p> <p>A lot of people [back home] complain about people driving slow and people having passed them.</p> <p>Sometimes I feel like I should speed up because I've heard other people [back home] say "oh it's so annoying when other people are driving that speed and you have to pass them all the time".</p>	<p>- people in small towns ... like to rip around ... Do tricks, they go on icy roads and speed on them, so they slide around on them and stuff. I don't do that stuff ... I get scared</p> <p>- my family is overly cautious driving, like they won't go a kilometre over the speed limit. And my brother especially, he's always hands on 10 and 2 ... I guess it's good that they are cautious but sometimes I think it's too much ... From watching them, it's kind of where I got a general idea of how to drive before I even did, which helped me I guess</p> <p>- I don't like the idea of [speeding and doing tricks]</p> <p>- ripping around on a grid road. And then he went into a slew and then we had to get someone to pick us up ... It's scary and I'm against it and I don't like it</p> <p>- I personally did not [learn to drive at a young age] ... Closest thing- like I sat on my mom's lap and drove around in a yard</p> <p>- I knew a lot of kids who drove farm vehicles around before they had their licenses, but we didn't farm so I had no reason</p> <p>- my friends had quads and I'd go over to their house and we would rip around on those</p> <p>- people [back home] complain about people driving slow and people having passed them</p> <p>- Sometimes I feel like I should speed up because I've heard other people [back home] say "oh it's so annoying when other people are driving that speed and you have to pass them all the time"</p> <p><i>Relationships:</i></p> <p>- CM Rural → Observation and Modeling → MM Driving</p> <p>- CM Rural → Overt Verbal Communication → MM Driving</p> <p>- CM Rural → Parenting Style → MM Driving</p> <p>- CM Rural → Punishment → MM Driving</p> <p>- CM Rural → Family → MM Driving</p> <p>- CM Rural → Friends and Peers → MM Driving</p> <p>- CM Rural → Driving Authority → MM Driving</p> <p>- CM Rural → Other Drivers → MM Driving</p> <p><i>Fostered by:</i></p> <p>- commonplace use of quads</p> <p><i>Hampered by:</i></p>
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		<ul style="list-style-type: none"> - perceiving unsafe driving as scary - waiting until legal age to drive large vehicles (as opposed to most rural community members) <p><i>Conclusion:</i> To P5, the cultural model of rural driving accommodates unsafe driving practices. Although P5 indicates that her family drives cautiously, as do other drivers in town because of kids playing on the streets, grid-road driving usually involves speeding, tricks, and stunting. Furthermore, P5 has often heard community members complain about slow drivers (“other people [back home] say ‘oh it’s so annoying when other people are driving that speed and you have to pass them all the time’”), reiterating that speeding is part of the cultural model of rural driving. However, P5 rejects such unsafe behaviours because they scare her. Perhaps the difference between which P5 and the typical community member views unsafe driving practices is explained in part by P5’s family members being positive driving role models. Another reason could be driving experience – P5 waited until legal age to start driving, whereas many of her peers began driving at a young age to help out with family farm work. Yet, P5 did drive quads at a young age, providing a driving experience similar to a car or truck. It seems commonplace for people to own quads, which gives children and youth a chance to experience driving before larger vehicle use and portrays driving as part of rural culture.</p>
<p>Model – Individual Model of Driving</p>	<p>If I’m with someone, I’m a lot more cautious and I pay a lot more attention and when I’m by myself I just kinda drive and don't think that much of it.</p> <p>I drive faster here [in the city]. Just to keep up with traffic and stuff. In small towns everyone just slowly drives around because kids randomly jump around on the streets and stuff. In here, that doesn’t seem like a problem and everyone else is driving fast, so I try and match the speed.</p> <p>I personally did not [learn to drive at a young age]. I find that the closest thing- like I sat on my mom’s lap and drove around on a yard because we lived on a farm. And she controlled the pedals but that’s about it. Other than that, I just waited because we didn’t farm or anything. So, I didn’t have a need to.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - with someone, I’m a lot more cautious and I pay a lot more attention - by myself I just kinda drive and don't think that much of it - everyone else is driving fast, so I try and match the speed - I personally did not [learn to drive at a young age] ... Closest thing- like I sat on my mom’s lap and drove around in a yard - friends had quads and I’d go over to their house and we would rip around on those a lot ... We would just stay in our yard or own field ... Just across a grid road but that's about it - hit the ditch last year due to ice so I’m overly cautious if there’s any ice on the road now - it was pretty icy and people seemed to be driving fine, but I was going 100 because I didn’t wanna mess with this. And a ton of other people were passing me

	<p>My friends had quads and I'd go over to their house and we would rip around on those a lot ... We actually didn't go anywhere; we would just stay in our yard or own field ... Just across a grid road but that's about it.</p> <p>I hit the ditch last year due to ice so I'm overly cautious if there's any ice on the road now, and so like even on Tuesday or Wednesday I drove into the city and it was pretty icy and people seemed to be driving fine, but I was going 100 because I didn't wanna mess with this. And a ton of other people were passing me and sometimes I feel like I should speed up because I've heard other people [back home] say "oh it's so annoying when other people are driving that speed and you have to pass them all the time".</p> <p>My mom doesn't think I should speed but I don't drive with her, so she can't stop me, I guess.</p> <p>I'm a little blind though, hence the glasses ... Like good thing I wasn't driving ... I just try to not drive at night. I'm not very good at it.</p> <p>Well people I've talked to who haven't lived here all their lives and moved here too, they are like scared to drive in the city because it's so fast-paced. For me, I've had some experience driving in the city before I moved here so it wasn't an issue.</p> <p>I drive a little more cautious because I drive my dad's car technically. He pays for it and like he just lets me use it ... When I just got my license, maybe like a week after, I got in a small accident and like the car was fine and stuff, but he was mad. So, I was more cautious after that.</p> <p>There was black ice on the road and my car like- well at the time, my car had very bad tires so it like slid out and I ended up doing a 180 into a ditch and when the cop saw it he thought it was reckless driving by the way the car slipped, I guess I almost could have gotten charged for that but the tow truck guy convinced the cop not to, so I guess that was nice but it was pretty scary ... I'm overly cautious driving on ice now. I probably drive slower than I need to. I also make sure I have</p>	<ul style="list-style-type: none"> - sometimes I feel like I should speed up because I've heard other people [back home] say "oh it's so annoying when other people are driving that speed and you have to pass them all the time" - my mom doesn't think I should speed but I don't drive with her, so she can't stop me - I'm a little blind though, hence the glasses ... I just try to not drive at night. I'm not very good at it. - I've had some experience driving in the city before I moved here so it wasn't an issue - got in a small accident and like the car was fine and stuff, but [dad] was mad. So, I was more cautious after that. - ended up doing a 180 into a ditch and when the cop saw it he thought it was reckless driving ... could have gotten charged for that but the tow truck guy convinced the cop not to ... I'm overly cautious driving on ice now. - I probably drive slower than I need to. I also make sure I have good tires now. Because before we didn't because my dad was like, "oh I don't wanna spend the money on it" - if something happened and it was just me in the vehicle, of course I'd be upset ... but if I had someone else in the vehicle and something happened to them I'd feel so bad - practiced driving with [parents]. My mom taught me how to drive on the highway on curbs because I couldn't do that. It freaked me out especially if there were other vehicles and she told me to look at whichever line was beside you, and that helped a lot. So, I guess that impacted me ... It was more my driver instructor trainer person I guess that taught me <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - IM ← Observation and Modeling - IM → (-) Observation and Modeling - IM ← Overt Verbal Communication - IM ← Parenting Style - IM ← Punishment - IM ← Monitoring - IM ← Family - IM → (-) Family - IM ← Friends and Peers - IM ← Driving Authority
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	<p>good tires now. Because before we didn't because my dad was like, "oh I don't wanna spend the money on it" and I was like "oh okay".</p> <p>If something happened and it was just me in the vehicle, of course I'd be upset or whatever, but if I had someone else in the vehicle and something happened to them I'd feel so bad.</p> <p>I practiced driving with [parents]. My mom taught me how to drive on the highway on curbs because I couldn't do that. It freaked me out especially if there were other vehicles and she told me to look at whichever line was beside you, and that helped a lot. So, I guess that impacted me I suppose? But other than that, they didn't really say anything unless I asked. It was more my driver instructor trainer person I guess that taught me more about it.</p>	<p>- IM ← Other Drivers</p> <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - involvement in driving incidents - reprimand from father, and nearly from police, following incidents - seeing and hearing about others driving <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - driving alone, when she is less aware (goes on "auto-pilot") - delayed onset of driving experience, compared to others in the community <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - P5 has been in several incidents or near-misses, perhaps a large part of her IM resisting CM Rural <p><i>Conclusion:</i> The development of P5's individual mental model of driving likely began at a young age when she sat on her mother's lap to drive (while mother worked the pedal) and drove quads at friend's houses. However, unlike most members of the community, P5 waited to drive larger vehicles until legal age. When first learning to drive larger vehicles, P5 felt nervous and unskilled, though her confidence in driving ability has increased with experience ("I've had some experience driving in the city before I moved here so it wasn't an issue"). P5 feels compelled to keep up with traffic and hears people back home talk about their irritation with slow drivers, which may be two reasons that she used to speed. P5 continued to speed despite her mother asking her not to. It seems that P5's driving practices changed since two incidents she has had while driving on an icy road. Now, P5 drives more cautiously during icy road conditions, to the point that she will drive slower than traffic and let people pass her. Part of this change is because P5's father was angry about the one incident, as well as nearly receiving a ticket from police for one of the incidents. Cautious driving is also a result of P5's poor eyesight ("I'm a little blind though, hence the glasses ... I just try to not drive at night"). Additionally, P5 is a more cautious and vigilant driver when driving with passengers than when alone, when she "does not think that much". There is</p>
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		<p>a tendency for P5 to blame environmental factors such as road conditions and tire quality for her incidents, though it is unclear whether or not these were in fact the main issues. Overall, P5 hovers around a middle ground of driving safety, balancing the safe practices of family members with generally unsafe practices of her friends and other community members; for example, she will speed slightly to keep up with traffic (~110km/hr on highways).</p>
<p>Model – Cultural Model of Urban Driving</p>	<p>I drive faster here [in the city]. Just to keep up with traffic and stuff. In small towns everyone just slowly drives around because kids randomly jump around on the streets and stuff. In here, that doesn't seem like a problem and everyone else is driving fast, so I try and match the speed.</p> <p>Well people I've talked to who haven't lived [in the city] all their lives and moved here too, they are like scared to drive in the city because it's so fast-paced ... It's so fast-paced and so many cars.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - I drive faster here [in the city]. Just to keep up with traffic - [in the city] ... everyone else is driving fast, so I try and match the speed - people I've talked to who haven't lived [in the city] all their lives and moved here too, they are like scared to drive in the city because it's so fast-paced - It's so fast-paced and so many cars <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Urban → Observation and Modeling → MM Driving - CM Urban → Other Drivers → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - high number of drivers to observe and learn from <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - potentially, little urban driving experience (given that P4 was raised rurally and is 18 years old, she may have only recently moved to the city) <p><i>Conclusion:</i> Little of P5's narrative explores the cultural model of urban driving, indicating she may not have a firm conceptualization of this cultural model (which, given her young age, would make sense if she only moved to Saskatoon for university). However, P5 emphasizes the high volume and fast pace of traffic while city driving, which is a prime motivator of how P5 herself drives.</p>
<p>Mode – Observation and Modeling</p>	<p>My parents taught me [to drive], so I kinda drive cautiously because my parents drove really cautious but not as cautious because with like, when I'm driving with friends and seeing how my friends drive and they're a lot more reckless.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - drive cautiously because my parents drove really cautious but not as cautious because ... my friends drive and they're a lot more reckless

	<p>On highways I drive probably around 110 because that's what everyone else does. Well the majority of people. I notice if I drive 100, I'm getting passed a lot. So, I would say that's an influence of others.</p> <p>There's a lot of people in small towns that like to rip around I guess. They like to do tricks, they go on icy roads and speed on them, so they slide around on them and stuff. I don't do that stuff ... I get scared. But I know a lot of people do it.</p> <p>Well the majority of my family is overly cautious driving, like they won't go a kilometre over the speed limit. And my brother especially, he's always hands on 10 and 2 and always like that. So, I guess it's good that they are cautious but sometimes I think it's too much ... From watching them, it's kind of where I got a general idea of how to drive before I even did, which helped me I guess.</p> <p>I don't like the idea of [speeding and doing tricks]. One time I was with people and they were just like ripping around on a grid road. And then he went into a slew and then we had to get someone to pick us up. So, I guess, I dunno, it's scary and I'm against it and I don't like it.</p> <p>My parents think that I shouldn't speed, especially if the road conditions aren't too good because I know a lot of people don't care about road conditions and they'll drive like normal.</p> <p>I was with a friend and we were driving to a town that's half an hour away from our town, so we were on the highway and like I didn't see anything and then she slammed on the brakes and I was like "why did you stop?" and she was like "well there was a moose there". I actually didn't see it. I'm a little blind though, hence the glasses ... Like good thing I wasn't driving ... I just try to not drive at night. I'm not very good at it.</p>	<ul style="list-style-type: none"> - on highways I drive probably around 110 because that's what everyone else does ... If I drive 100, I'm getting passed a lot - people in small towns ... like to rip around ... Do tricks, they go on icy roads and speed on them, so they slide around on them and stuff. I don't do that stuff ... I get scared - my family is overly cautious driving, like they won't go a kilometre over the speed limit. And my brother especially, he's always hands on 10 and 2 ... I guess it's good that they are cautious but sometimes I think it's too much ... From watching them, it's kind of where I got a general idea of how to drive before I even did, which helped me I guess - I don't like the idea of [speeding and doing tricks] - ripping around on a grid road. And then he went into a slew and then we had to get someone to pick us up ... It's scary and I'm against it and I don't like it - a lot of people don't care about road conditions and they'll drive like normal - she slammed on the brakes and I was like "why did you stop?" and she was like "well there was a moose there". I actually didn't see it. I'm a little blind though, hence the glasses ... Like good thing I wasn't driving ... I just try to not drive at night. I'm not very good at it <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - IM ← Observation and Modeling - IM → (-) Observation and Modeling - CM Urban → Observation and Modeling → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - perceiving others' driving behaviours to be bad examples <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - negative affect induced by observing certain driving behaviours (e.g., stunting on icy roads) <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - inconsistent behaviours observed by P5 (safe versus unsafe driving) - friends unsafe drivers; parents safe
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		<p><i>Concluded level:</i> HIGH. Observing others has highly communicated to P5 the cultural model of rural driving, with P5 seeing friends and community members drive recklessly regardless of road conditions, but family members drive with utmost care. Observing these actions – both safe and unsafe – influences P5’s driving practices. For example, P5 drives cautiously because that is how her parents drive. Yet, P5 considers family members to be overly cautious at times and, although she has learned from them, will not drive as cautiously. P5 is also less cautious than her parents because of the reckless driving behaviours she sees her friends committing (“drive cautiously because my parents drove really cautious but not as cautious because ... my friends drive and they’re a lot more reckless”). However, P5 does not replicate certain dangerous driving behaviours that she sees (e.g., stunting on icy roads) because of the potential negative repercussions (“he went into a slew”) and fear she experiences in doing so. Instead, P5 seems to take on the influences of multiples sources that she observes driving, balancing them in her driving practices (i.e., sometimes driving safely, sometimes driving unsafely).</p>
<p>Mode – Overt Verbal Communication</p>	<p>My parents taught me [to drive], so I kinda drive cautiously because my parents drove really cautious but not as cautious because with like, when I’m driving with friends and seeing how my friends drive and they’re a lot more reckless.</p> <p>A lot of people [back home] complain about people driving slow and people having passed them.</p> <p>Sometimes I feel like I should speed up because I’ve heard other people say “oh it’s so annoying when other people are driving that speed and you have to pass them all the time”.</p> <p>My brother doesn't say anything. He doesn’t really care, and my mom doesn’t think I should speed but I don't drive with her, so she can’t stop me, I guess.</p> <p>My parents think that I shouldn’t speed, especially if the road conditions aren’t too good because I know a lot of people don't care about road conditions and they’ll drive like normal.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - parents taught me [to drive] - people [back home] complain about people driving slow and people having passed them - feel like I should speed up because I’ve heard other people say “oh it’s so annoying when other people are driving that speed and you have to pass them all the time” - parents think that I shouldn’t speed, especially if the road conditions aren’t too good - mom taught me how to drive on the highway on curbs because I couldn’t do that. It freaked me out especially if there were other vehicles and she told me to look at whichever line was beside you, and that helped a lot. So, I guess that impacted me... But other than that, they didn’t really say anything unless I asked - it was more my driver instructor trainer person I guess that taught me more about [driving] <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Overt Verbal Communication → MM Driving

	<p>I practiced driving with [parents]. My mom taught me how to drive on the highway on curbs because I couldn't do that. It freaked me out especially if there were other vehicles and she told me to look at whichever line was beside you, and that helped a lot. So, I guess that impacted me I suppose? But other than that, they didn't really say anything unless I asked. It was more my driver instructor trainer person I guess that taught me more about it.</p>	<p>- IM ← Overt Verbal Communication</p> <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - mixed messages to P5 (safe versus unsafe driving) <p><i>Concluded level:</i> MODERATE. Overt verbal communication has been fairly influential in P5 learning about cultural models of driving but, like observation and modeling, illustrates a “push and pull” between safe and unsafe driving. On the one hand, communication with family members and her driving instructor has taught P5 that cautious driving is to be exercised in rural areas (e.g., driving within speed limits), which she mostly respects. On the other hand, communication with other community members indicates to P5 that speeding is permissible in rural areas (“people [back home] complain about people driving slow”). The result is P5 driving somewhere in between both influences in terms of safety.</p>
<p>Mode – Parenting Style (Regarding Driving)</p>	<p>I personally did not [learn to drive at a young age]. I find that the closest thing- like I sat on my mom's lap and drove around on a yard because we lived on a farm. And she controlled the pedals but that's about it.</p> <p>My parents think that I shouldn't speed, especially if the road conditions aren't too good because I know a lot of people don't care about road conditions and they'll drive like normal.</p> <p>P: My mom would be back and forth [between controlling and permissive]: she would be very concerned about what was going on and always needed to know and stuff like that but then she would go back to not caring. And she would go back and forth. And with my dad like when I moved in with him for the first year it was kinda like, I could do anything, and he didn't ask questions, and then he got a girlfriend and he got extremely controlling and angry all the time about it.</p> <p>E: And now do you think that impacted your driving at all? Like the changing of controlling, permissive? Did it come out in like driving rules or anything like that?</p> <p>P: I dunno. Maybe. I drive a little more cautious because I drive my dad's car technically.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - did not [learn to drive at a young age]. I find that the closest thing- like I sat on my mom's lap and drove around on a yard because we lived on a farm - parents think that I shouldn't speed, especially if the road conditions aren't too good - mom would be back and forth [between controlling and permissive]: she would be very concerned about what was going on ... but then she would go back to not caring. And she would go back and forth - dad like when I moved in with him for the first year ... I could do anything, and he didn't ask questions, and then he got a girlfriend and he got extremely controlling and angry all the time about it ... Maybe [changing of controlling, permissive has impacted driving]. I drive a little more cautious - dad was so mad [after P5's incident] ... mom was more concerned than anything, but dad was just straight up mad. Didn't talk to me for a little while after that - [when asked about most influential mode] probably parents-like the punishments from parents. Because just like, when my dad would be mad at me at something that would happen, ... I just feel really bad about it and not want it to happen again

	<p>My dad was so mad [after P5's incident]. Like I dunno. My mom was more concerned than anything, but dad was just straight up mad. Didn't talk to me for a little while after that.</p> <p>[When asked about most influential mode] probably parents- like the punishments from parents. Because just like, when my dad would be mad at me at something that would happen, I dunno, I just feel really bad about it and not want it to happen again.</p>	<p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Parenting Style → MM Driving - IM ← Parenting Style - Parenting Style ↔ Family <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - discipline over driving-related misbehaviour <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - inconsistency of parenting styles (both within and between parents) <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - although punishment stated as most influential mode, P5's description of it is also relevant to parenting style <p><i>Concluded level:</i> MODERATE. The parenting style of P5's parents has had a moderate impact in conveying to her the cultural model of rural driving. In fact, although punishment was stated by P5 as most influential mode, it is specifically her <i>parents'</i> punishment that she finds impacts her driving most (e.g., discipline following a driving incident taught P5 that reckless driving was unacceptable). Also, at her parents' behest, P5 did not learn to drive until legal age, reinforcing for P5 that traffic laws are important in rural areas – something she still believes. However, inconsistencies that P5 has experienced in the parenting style of her parents (concerning driving) has caused some confusion in what the cultural model of rural driving consists of and what driving practices she should express. Between parents, inconsistencies are evident – after a driving incident, P5's mother was concerned for P5's safety while her father only expressed anger (“dad was just straight up mad. Didn't talk to me for a little while after that”). But also, within parents P5 has seen inconsistencies: P5's mother has switched between authoritative and permissive styles regarding P5's driving practices (“she would be very concerned about what was going on ... but then she would go back to not caring”). Similarly, P5's father was uninvolved in P5's driving when she first got her license, but later became authoritarian (“he got extremely controlling and angry all the time about it”).</p>
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<p>Mode – Punishment</p>	<p>One time I was with people and they were just like ripping around on a grid road. And then he went into a slew and then we had to get someone to pick us up. So, I guess, I dunno, it's scary and I'm against it and I don't like it.</p> <p>I hit the ditch last year due to ice so I'm overly cautious if there's any ice on the road now, and so like even on Tuesday or Wednesday I drove into the city and it was pretty icy and people seemed to be driving fine, but I was going 100 because I didn't wanna mess with this.</p> <p>I drive a little more cautious because I drive my dad's car technically. He pays for it and like he just lets me use it ... When I just got my license, maybe like a week after, I got in a small accident and like the car was fine and stuff, but he was mad. So, I was more cautious after that.</p> <p>There was black ice on the road and my car like- well at the time, my car had very bad tires so it like slid out and I ended up doing a 180 into a ditch and when the cop saw it he thought it was reckless driving by the way the car slipped, I guess I almost could have gotten charged for that but the tow truck guy convinced the cop not to, so I guess that was nice but it was pretty scary ... I'm overly cautious driving on ice now. I probably drive slower than I need to. I also make sure I have good tires now. Because before we didn't because my dad was like, "oh I don't wanna spend the money on it" and I was like "oh okay".</p> <p>My dad was so mad [after P5's incident]. Like I dunno. My mom was more concerned than anything, but dad was just straight up mad. Didn't talk to me for a little while after that.</p> <p>[When asked about most influential mode] probably parents- like the punishments from parents. Because just like, when my dad would be mad at me at something that would happen, I dunno, I just feel really bad about it and not want it to happen again.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - ripping around on a grid road. And then he went into a slew and then we had to get someone to pick us up ... It's scary and I'm against it and I don't like it - hit the ditch last year due to ice so I'm overly cautious if there's any ice on the road now - it was pretty icy and people seemed to be driving fine, but I was going 100 because I didn't wanna mess with this. And a ton of other people were passing me - drive a little more cautious because I drive my dad's car technically ... When I just got my license ... I got in a small accident and like the car was fine and stuff, but he was mad. So, I was more cautious after that - ended up doing a 180 into a ditch and when the cop saw it he thought it was reckless driving ... could have gotten charged for that but the tow truck guy convinced the cop not to ... I'm overly cautious driving on ice now. - I probably drive slower than I need to. I also make sure I have good tires now. Because before we didn't because my dad was like, "oh I don't wanna spend the money on it" - dad was so mad [after P5's incident] ... mom was more concerned than anything, but dad was just straight up mad. Didn't talk to me for a little while after that - [when asked about most influential mode] probably parents-like the punishments from parents. Because just like, when my dad would be mad at me at something that would happen, ... I just feel really bad about it and not want it to happen again <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Punishment → MM Driving - IM ← Punishment - Punishment ↔ Family - Punishment ↔ Driving Authority <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - punishment/social disapproval from parents - legal repercussion (almost ticketed by police officer) <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - blaming punishment on circumstance
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		<p><i>Other comments:</i></p> <ul style="list-style-type: none"> - stated as most influential mode <p><i>Concluded level:</i> HIGH. Punishments, primarily social (from parents) and legal (from police), have effectively relayed to P5 cultural models of driving. In fact, P5 cited punishment as the most influential mode of model transmission. P5 has adhered to safe driving practices learned in this manner quite well. After two separate incidents involving icy road conditions, P5 is “overly cautious” when driving under such conditions, though she seems to place the blame on the road conditions rather than her driving. P5 is also inclined to drive safely after being with friends who’s reckless driving ended in a slew. Punishments having the highest impact on P5’s MM of driving relate to social disapproval from her parents. Specifically, P5’s angry father following her incidents has made her drive more cautiously (“he was mad. So, I was more cautious after that”), especially because she drives his car. Also having a big effect on P5’s MM of driving, a police officer <i>almost</i> ticketed P5 for reckless driving, which she says makes her a more cautious driver now.</p>
<p>Mode – Monitoring</p>	<p>If I’m with someone, I’m a lot more cautious and I pay a lot more attention and when I’m by myself I just kinda drive and don't think that much of it.</p> <p>[Dad is] basically just driving in town and saying, “well you don’t have to drive that fast” and I’ll be like driving 40, but that’s about it. When I’m driving with my friends they’ll usually just be on their phone or talk to me. I don’t think they pay attention.</p> <p>E: That doesn’t really impact your driving if your friends are just relaxed then?</p> <p>P: Yeah, unless it’s bad roads and I freak myself out.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - with someone, I’m a lot more cautious and I pay a lot more attention - by myself I just kinda drive and don't think that much of it - [dad is] basically just driving in town and saying, “well you don’t have to drive that fast” and I’ll be like driving 40 - driving with my friends they’ll usually just be on their phone or talk to me. I don’t think they pay attention - [friends being relaxed doesn’t impact driving] unless it’s bad roads and I freak myself out <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - IM ← Monitoring <p><i>Concluded level:</i> LOW. From the brief information that P5 discusses on monitoring, it does not give indication to cultural models of driving. P5 drives more cautiously with passengers than when alone, regardless of whether they are actively</p>

		monitoring her driving behaviour. Thus, it seems monitoring does not have a large impact on P5's MM of driving.
Mode – Print Educational Material	NO DATA	NO DATA
Source – Family	<p>My parents taught me [to drive], so I kinda drive cautiously because my parents drove really cautious but not as cautious because with like, when I'm driving with friends and seeing how my friends drive and they're a lot more reckless.</p> <p>Well the majority of my family is overly cautious driving, like they won't go a kilometre over the speed limit. And my brother especially, he's always hands on 10 and 2 and always like that. So, I guess it's good that they are cautious but sometimes I think it's too much ... From watching them, it's kind of where I got a general idea of how to drive before I even did, which helped me I guess.</p> <p>I personally did not [learn to drive at a young age]. I find that the closest thing- like I sat on my mom's lap and drove around on a yard because we lived on a farm. And she controlled the pedals but that's about it.</p> <p>My brother doesn't say anything. He doesn't really care, and my mom doesn't think I should speed but I don't drive with her, so she can't stop me, I guess.</p> <p>My parents think that I shouldn't speed, especially if the road conditions aren't too good because I know a lot of people don't care about road conditions and they'll drive like normal.</p> <p>P: My mom would be back and forth [between controlling and permissive]: she would be very concerned about what was going on and always needed to know and stuff like that but then she would go back to not caring. And she would go back and forth. And with my dad like when I moved in with him for the first year it was kinda like, I could do anything, and he didn't ask questions, and then he got a girlfriend and he got extremely controlling and angry all the time about it.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - drive cautiously because my parents drove really cautious but not as cautious because ... my friends drive and they're a lot more reckless - my family is overly cautious driving, like they won't go a kilometre over the speed limit. And my brother especially, he's always hands on 10 and 2 ... I guess it's good that they are cautious but sometimes I think it's too much ... From watching them, it's kind of where I got a general idea of how to drive before I even did, which helped me I guess - I personally did not [learn to drive at a young age] ... Closest thing- like I sat on my mom's lap and drove around in a yard - brother doesn't say anything [about driving]. He doesn't really care - my mom doesn't think I should speed but I don't drive with her, so she can't stop me - parents think that I shouldn't speed, especially if the road conditions aren't too good - mom would be back and forth [between controlling and permissive]: she would be very concerned about what was going on ... but then she would go back to not caring. And she would go back and forth - dad like when I moved in with him for the first year ... I could do anything, and he didn't ask questions, and then he got a girlfriend and he got extremely controlling and angry all the time about it ... Maybe [changing of controlling, permissive has impacted driving]. I drive a little more cautious - drive a little more cautious because I drive my dad's car technically ... When I just got my license ... I got in a small accident and like the car was fine and stuff, but he was mad. So, I was more cautious after that - practiced driving with [parents]. My mom taught me how to drive on the highway on curbs because I couldn't do that. It freaked me out especially if there were other vehicles and she

<p>E: And now do you think that impacted your driving at all? Like the changing of controlling, permissive? Did it come out in like driving rules or anything like that?</p> <p>P: I dunno. Maybe. I drive a little more cautious because I drive my dad's car technically. He pays for it and like he just lets me use it ... When I just got my license, maybe like a week after, I got in a small accident and like the car was fine and stuff, but he was mad. So, I was more cautious after that.</p> <p>I practiced driving with [parents]. My mom taught me how to drive on the highway on curbs because I couldn't do that. It freaked me out especially if there were other vehicles and she told me to look at whichever line was beside you, and that helped a lot. So, I guess that impacted me I suppose? But other than that, they didn't really say anything unless I asked. It was more my driver instructor trainer person I guess that taught me more about it.</p> <p>I also make sure I have good tires now. Because before we didn't because my dad was like, "oh I don't wanna spend the money on it" and I was like "oh okay".</p> <p>My dad was so mad [after P5's incident]. Like I dunno. My mom was more concerned than anything, but dad was just straight up mad. Didn't talk to me for a little while after that.</p> <p>[When asked about most influential mode] probably parents- like the punishments from parents. Because just like, when my dad would be mad at me at something that would happen, I dunno, I just feel really bad about it and not want it to happen again.</p>	<p>told me to look at whichever line was beside you, and that helped a lot. So, I guess that impacted me</p> <ul style="list-style-type: none"> - make sure I have good tires now. Because before we didn't because my dad was like, "oh I don't wanna spend the money on it" - dad was so mad [after P5's incident] ... mom was more concerned than anything, but dad was just straight up mad. Didn't talk to me for a little while after that - [when asked about most influential mode] probably parents-like the punishments from parents. Because just like, when my dad would be mad at me at something that would happen, ... I just feel really bad about it and not want it to happen again <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Family → MM Driving - IM ← Family → IM (+) - IM → (-) Family - Family ↔ Parenting Style - Family ↔ Punishment <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - parents being primary (informal) driver instructors - parent-enforced punishment <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - perception of parents as overly cautious <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - family members are cautious drivers <p><i>Concluded level:</i> HIGH. Despite inconsistencies in their parenting styles (discussed at length above), P5's parents, as well as her brother, relay the cultural model of rural driving to her ("it's kind of where I got a general idea of how to drive before I even did"). For example, P5's parents drive cautiously – almost too cautiously, in P5's eyes – and ask her to do the same (e.g., drive within speed limits and slow down in poor weather conditions), which she does to a degree. P5 has also learned about driving from watching her brother, though not so much from conversing with him ("doesn't say anything [about</p>
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		driving]. He doesn't really care"). P5's parents have been her primary (informal) driving instructors, which seems to be part of why they impact her driving as much as they do. As well, P5's father's anger and discipline following her driving-related incidents has reinforced the need for her to drive cautiously. Actually, when asked about the most influential mode of model transmission, P5 replied that it is her parents – particularly, punishment from her parents (“when my dad would be mad at me at something that would happen ... I just feel really bad about it and not want it to happen again”), highlighting the importance of this source of cultural model transmission.
Source – Friends and Peers	<p>When I'm driving with friends and seeing how my friends drive and they're a lot more reckless [than parents]. I'm not overly reckless but I'm influenced by my friends.</p> <p>When I'm driving with my friends they'll usually just be on their phone or talk to me. I don't think they pay attention.</p> <p>E: That doesn't really impact your driving if your friends are just relaxed then?</p> <p>P: Yeah, unless it's bad roads and I freak myself out.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - driving with friends and seeing how my friends drive and they're a lot more reckless [than parents]. I'm not overly reckless but I'm influenced by my friends - driving with my friends they'll usually just be on their phone or talk to me. I don't think they pay attention - [friends being relaxed doesn't impact driving] unless it's bad roads and I freak myself out <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Friends and Peers → MM Driving - IM ← Friends and Peers <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - unwillingness to drive too recklessly <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - friends are reckless drivers <p><i>Concluded level:</i> MODERATE. Though P5 does not speak much to the influence of her friends and peers, it is apparent that her friends indicate to her that the cultural model of rural driving is accepting of reckless driving. Furthermore, P5 admits to being influenced by her friends' reckless driving, though she will not enact it to the same extent that they do.</p>
Source – Driving Authority	My mom taught me how to drive on the highway on curbs because I couldn't do that. It freaked me out especially if there were other vehicles and she told me to look at whichever line was beside you, and that helped a lot. So, I guess that impacted me I suppose? But other	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - was more my driver instructor trainer person I guess [than parents] that taught me more about it.

	<p>than that, they didn't really say anything unless I asked. It was more my driver instructor trainer person I guess that taught me more about it.</p> <p>There was black ice on the road and my car like- well at the time, my car had very bad tires so it like slid out and I ended up doing a 180 into a ditch and when the cop saw it he thought it was reckless driving by the way the car slipped, I guess I almost could have gotten charged for that but the tow truck guy convinced the cop not to, so I guess that was nice but it was pretty scary ... I'm overly cautious driving on ice now. I probably drive slower than I need to. I also make sure I have good tires now. Because before we didn't because my dad was like, "oh I don't wanna spend the money on it" and I was like "oh okay".</p>	<p>- ended up doing a 180 into a ditch and when the cop saw it he thought it was reckless driving ... could have gotten charged for that but the tow truck guy convinced the cop not to ... I'm overly cautious driving on ice now. I probably drive slower than I need to. I also make sure I have good tires now. Because before we didn't because my dad was like, "oh I don't wanna spend the money on it"</p> <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Driving Authority → MM Driving - IM ← Driving Authority - Driving Authority ↔ Punishment <p><i>Concluded level:</i> MODERATE. Driving authority, such as driving instructors and police officers, have conveyed to P5 that reckless driving is not tolerated in rural areas. P5 does not remark much on her driving instructor but notes that he or she was more of a teacher than P5's parents (who have had a large impact on her MM development). Regarding police officers, the officer at P5's one driving incident did not charge her, but P5 feels it was close. P5 has driven more cautiously since the incident.</p>
<p>Source – Other Drivers (community, strangers, etc.)</p>	<p>On highways I drive probably around 110 because that's what everyone else does. Well the majority of people. I notice if I drive 100, I'm getting passed a lot. So, I would say that's an influence of others.</p> <p>Tuesday or Wednesday I drove into the city and it was pretty icy and people seemed to be driving fine, but I was going 100 because I didn't wanna mess with this. And a ton of other people were passing me and sometimes I feel like I should speed up because I've heard other people say "oh it's so annoying when other people are driving that speed and you have to pass them all the time".</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - on highways I drive probably around 110 because that's what everyone else does ... If I drive 100, I'm getting passed a lot ... I would say that's an influence of others - it was pretty icy and people seemed to be driving fine, but I was going 100 because I didn't wanna mess with this. And a ton of other people were passing me - sometimes I feel like I should speed up because I've heard other people say "oh it's so annoying when other people are driving that speed and you have to pass them all the time" <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Other Drivers → MM Driving - IM ← Other Drivers - CM Urban → Other Drivers → MM Driving <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - experience with past driving-related incidents

		<p><i>Concluded level:</i> MODERATE. Community members and other drivers demonstrate that speeding on highways and in rural areas is acceptable, which affects P5's driving speed within reason, though she will still not speed under icy driving conditions because of her previous incidents on icy roads.</p>
Participant 6 (7830)		
Construct	Transcript Excerpts	Analysis
<p>Model – Cultural Model of Rural Driving</p>	<p>Where I grew up there's no one really, not many vehicles, not much traffic, not much to be careful about.</p> <p>I'd feel like "oh it's okay if I'm a little bit over the speed limit because my friends do it all the time".</p> <p>Especially when I lived at home and our roads would just get graveled, my one friend would drive really fast on them. That really scares me because we would like fishtail or swerve ... We kind of ended up flying in the ditch and it was really steep. So, after that I was like "I always need to be extra careful" because you never know. Just like any little thing you do wrong could result in not good.</p> <p>[Parents] would always set like good examples. They would never go over the speed or do anything to scare me. So, I was always calm with them which has influenced me to try to be a good driver and be careful.</p> <p>Lots of my friends back home still aren't even comfortable with driving in the city which is- that's kind of how I was too. It's like, until you get here then you actually learn because in my drivers ed we went to PA, but even that was pretty easy. So, we never got much experience driving in Saskatoon. So, lots of them I would say are timid drivers.</p> <p>I just feel like with people who are in drivers ed in small towns, it's like completely different from being in the city. Because in the city I feel like you learn how to do everything. When you're in the town you can kind of get away with- like even in my exam, the parallel parking it really wasn't anything like it is Saskatoon. Like we would just go behind a vehicle but there wasn't another vehicle behind us. Like it was all different and easier I feel. So, then that's why kids really</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - not many vehicles, not much traffic - not much to be careful about - it's okay if I'm a little bit over the speed limit because my friends do it - my one friend would drive really fast on [gravel roads]. That really scares me because we would like fishtail or swerve - ended up flying in the ditch ... after that I was like "I always need to be extra careful" - [parents] would always set like good examples ... always calm with them which has influenced me to try to be a good driver - [friends] aren't even comfortable with driving in the city - we never got much experience [in driver's ed] driving in Saskatoon ... So, lots of [students] I would say are timid drivers - completely different from being in the city - even in my exam, the parallel parking it really wasn't anything like it is Saskatoon - that's why kids really struggle when they get to the city: because they had it easy when they were in their small town - speeding ... a little looser [in rural area] - [parents are] pretty easy-going and they trust me. But when it comes to driving, especially when I was learning, in the vehicle they always had stuff to say. Like, "oh you're turning your corners too fast" - [parents] constantly nagging me about things. I feel like they still do once in a while ... it is [a good thing] - never gotten a speeding ticket or anything - never been stopped or warned or anything <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Rural → Punishment → MM Driving

	<p>struggle when they get to the city: because they had it easy when they were in their small town.</p> <p>E: So, like for speeding, do you feel like it's a little looser [in rural area]?</p> <p>P: Yeah, a little bit.</p> <p>P: [Parents are] pretty easy-going and they trust me. But when it comes to driving, especially when I was learning, in the vehicle they always had stuff to say. Like, "oh you're turning your corners too fast". Like they're always there. Constantly nagging me about things.</p> <p>I've never gotten a speeding ticket or anything. I have gotten a couple parking tickets. That would be about it ... Yeah, I got two parking tickets. Otherwise, I've never been stopped or warned or anything.</p>	<ul style="list-style-type: none"> - CM Rural → (-) Punishment → MM Driving - CM Rural → Monitoring → MM Driving - CM Rural → Family → MM Driving - CM Rural → Friends and Peers → MM Driving - CM Rural → Driving Authority → MM Driving - CM Rural → (-) Driving Authority → MM Driving - CM Rural → Other Drivers → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - seeing others drive and receive driving-related punishment in rural settings - perceived leniency of traffic laws <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - negative affect following rural driving (e.g., hitting the ditch) <p><i>Conclusion:</i> To P6, the cultural model of rural driving predominately involves reckless driving (e.g., speeding, swerving, and fishtailing), which is promoted by a perceived leniency over traffic laws (e.g., speeding a little over the limit), simplicity in rural driving, and lack of vehicles, pedestrians, or others environmental factors to be vigilant of. Such driving behaviours, including a friend crashing into a ditch while speeding, deters P6 from future reckless driving as it scares her. Additionally, rural driving, including driver's education, is seen as overly basic, inadequate in preparing for driving in complex environments such as large cities. On the other hand, P6's parents modeled safe driving practices that made her feel calm, perhaps providing hope to her that reckless driving is not the only option in rural areas.</p>
<p>Model – Individual Model of Driving</p>	<p>I'm more like shy, timid, and cautious definitely</p> <p>When I first moved to the city, I honestly did not do that much city driving. So, it definitely opened up my eyes. I feel like that's when I fully learned to drive because where I grew up there's no one really, not many vehicles, not much traffic, not much to be careful about.</p> <p>It's like, until you get [to Saskatoon] then you actually learn because in my drivers ed we went to PA, but even that was pretty easy.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - shy, timid, and cautious definitely - when I first moved to the city ... it definitely opened up my eyes - [beginning city driving is] when I fully learned to drive because where I grew up there's no one really, not many vehicles, not much traffic, not much to be careful about - until you get [to Saskatoon] then you actually learn - in the city I feel like you learn how to do everything

	<p>In the city I feel like you learn how to do everything. When you're in the town you can kind of get away with- like even in my exam, the parallel parking it really wasn't anything like it is Saskatoon.</p> <p>I've never gotten a speeding ticket or anything. I have gotten a couple parking tickets. That would be about it ... Yeah, I got two parking tickets. Otherwise, I've never been stopped or warned or anything.</p> <p>E: So, the fact that you haven't been ticketed or anything before, does that affect your driving at all? P: I feel like it does because I'm just going to keep doing what I'm doing. It must be good.</p> <p>Lots of times I'll drive my sister and her friends around places and I've always noticed that they're on their phones and not even paying attention. And when I do drive with other people I definitely drive more cautious just knowing that their lives are in my hands.</p>	<ul style="list-style-type: none"> - even in my exam, the parallel parking it really wasn't anything like it is Saskatoon - never gotten a speeding ticket or anything - never been stopped or warned or anything - just going to keep doing what I'm doing. It must be good - when I do drive with other people I definitely drive more cautious just knowing that their lives are in my hands <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - IM ← (-) Punishment - IM ← Monitoring - IM ← (-) Driving Authority - IM ← Family - IM → (-) Friends and Peers - IM ← Other Drivers <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - moving from rural to urban setting - care for passengers' safety <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - simplicity of rural driving (e.g., lack of traffic or pedestrians) <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - shy/cautious person (and driver) <p><i>Conclusion:</i> P6 is first and foremost a cautious driver, stemming in part from her personality ("I'm more like shy, timid, and cautious"). Additionally, moving to Saskatoon was a formative experience for P6's individual mental model of driving ("in the city I feel like you learn how to do everything"). In the city, P6 encounters traffic, pedestrians, and other elements unique to city driving that has made her a more cautious driver. It seems that P6 is daunted by the greater complexity in driving in Saskatoon (e.g., parallel parking). P6's cautious driving is further encouraged when driving with passengers (e.g., her sister) as she feels responsible for their safety. This style of driving is reinforced as appropriate by the fact that P6 has never been pulled over by police or ticketed, indicating to her that she is a</p>
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		safe driver (“just going to keep doing what I’m doing. It must be good”).
Model – Cultural Model of Urban Driving	<p>When I first moved to the city, I honestly did not do that much city driving. So, it definitely opened up my eyes. I feel like that’s when I fully learned to drive because where I grew up there’s no one really, not many vehicles, not much traffic, not much to be careful about.</p> <p>Yeah, I’m way more aware [in the city] and there’s more rules too I would say ... because there’s traffic lights and stuff and there’s not at the farm.</p> <p>E: And what are the drivers like in the city here? P: I feel like everyone thinks they know how to drive like 100% and they’re very confident with their driving.</p> <p>I’ve never gotten a speeding ticket or anything. I have gotten a couple parking tickets. That would be about it ... Yeah, I got two parking tickets. Otherwise, I’ve never been stopped or warned or anything.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - when I first moved to the city ... it definitely opened up my eyes - [beginning city driving is] when I fully learned to drive because where I grew up there’s no one really, not many vehicles, not much traffic, not much to be careful about - I’m way more aware [in the city] and there’s more rules too I would say ... because there’s traffic lights and stuff and there’s not at the farm - everyone thinks they know how to drive like 100% and they’re very confident with their driving - never gotten a speeding ticket or anything - never been stopped or warned or anything <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Urban → Observation and Modeling → MM Driving - CM Urban → Punishment → MM Driving - CM Urban → (-) Punishment → MM Driving - CM Urban → Driving Authority → MM Driving - CM Urban → (-) Driving Authority → MM Driving - CM Urban → Other Drivers → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - interaction with other drivers and environmental factors on urban roads - police officer presence <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - potentially, little urban driving experience (given that P4 was raised rurally and is 18 years old, she may have only recently moved to the city) <p><i>Conclusion:</i> Relatively little attention was given to the cultural model of urban driving in P6’s narrative, perhaps due to living in the city for only a short time (which is plausible given her young age, if she moved to the city only for university). However, from what is available it seems that P5 sees this model as supportive of safe driving. City drivers, according to P6, are knowledgeable and</p>

		<p>confident in their driving – they can (and do) adjust their driving to traffic, pedestrians, and other urban elements. Driving safety is further supported by increased traffic rules (e.g., traffic lights) and enforcement (e.g., police presence) in urban areas, compared to rural. Additionally, great attention and care is needed to navigate urban roads, which P6 feels she has achieved since moving to the city.</p>
<p>Mode – Observation and Modeling</p>	<p>Maybe my friends [influenced driving] too because when I first started driving I'd meet with them driving and then- they were more risky drivers so then I think that influenced me a little bit because I'd feel like "oh it's okay if I'm a little bit over the speed limit because my friends do it all the time".</p> <p>I feel like [friends] drive pretty dangerously at times. Just sitting there and being in the vehicle like, I just don't want to be like that because it scares me. I've been with my friends when they've almost been in accidents. One time I was with her and even just being in that vehicle and being with her I'm like- I'm going to drive more cautiously myself because I don't want to put other people in danger.</p> <p>Especially when I lived at home and our roads would just get graveled, my one friend would drive really fast on them. That really scares me because we would like fishtail or swerve ... We kind of ended up flying in the ditch and it was really steep. So, after that I was like "I always need to be extra careful" because you never know. Just like any little thing you do wrong could result in not good.</p> <p>[Parents] would always set like good examples. They would never go over the speed or do anything to scare me. So, I was always calm with them which has influenced me to try to be a good driver and be careful.</p> <p>E: Yeah. What about your siblings or parents, any offences there that you feel like sharing? P: No, they haven't. Maybe like one speeding ticket but that's about it.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - [friends] were more risky drivers so then I think that influenced me a little bit because I'd feel like "oh it's okay if I'm a little bit over the speed limit because my friends do it all the time" - [friends] drive pretty dangerously at times. Just sitting there and being in the vehicle like, I just don't want to be like that because it scares me - I've been with my friends when they've almost been in accidents ... I'm going to drive more cautiously myself because I don't want to put other people in danger - my one friend would drive really fast ... That really scares me because we would like fishtail or swerve ... We kind of ended up flying in the ditch and it was really steep - [parents] would always set like good examples. They would never go over the speed or do anything to scare me ... always calm with them which has influenced me to try to be a good driver and be careful - [family members have had] maybe like one speeding ticket but that's about it <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Urban → Observation and Modeling → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - strong emotion (e.g., calmness or danger) - perceiving others' driving behaviours to be bad examples <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - friends unsafe drivers; parents safe <p><i>Concluded level:</i> MODERATE. Observation and modeling have been strong transmitters of cultural models of driving for P6.</p>

		<p>Seeing friends engage in risky driving informs P6 of the cultural model of rural driving and encourages her to do so as well (“it’s okay if I’m a little bit over the speed limit because my friends do it all the time”). However, there is a limit to this effect as P6 will not adopt her friend’s riskier behaviours (e.g., swerving or fishtailing) because of the negative affect it induces in her (“[friends] drive pretty dangerously at times ... I just don’t want to be like that because it scares me”). Almost being in incidents while her friend is driving has illustrated the danger inherent in rural driving, discouraging her from carrying out similar behaviours. P6 is more amenable to the safe driving example set by her parents (e.g., not speeding and being ticketed just once if at all), demonstrating a safer side of rural driving.</p>
<p>Mode – Overt Verbal Communication</p>	<p>[Siblings] influence me in a good way I would say. They’d always give me heck if they thought I was driving too fast or anything ... What they’re saying actually makes a difference when ... driving.</p> <p>In my grade there’s a couple of guys in my class that actually got in an accident where they rolled their vehicle and the reason was they partied the night before and they were really tired and on a long road trip. So, because of that sometimes I’m really cautious when I’m tired. So that. When I was in drivers ed there’s still a few things that really stick out to me I guess. Like shoulder checking and that type of thing. I still can hear her- my drivers ed instructor – in my head sometimes.</p> <p>P: [When asked about most influential mode] I feel like it would just be my parents because they’re the ones who basically taught me how to drive. So, I listen to them the most.</p> <p>E: Yeah. When you say your parents, like everything that comes with that? Because you talked about how trusting they are, some things they said. So that’s all kind of encompassed?</p> <p>P: Mhm.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - [siblings] would give me heck if they thought I was driving too fast or anything - what [siblings are] saying actually makes a difference when ... driving - a couple of guys in my class ... rolled their vehicle ... because of that sometimes I’m really cautious when I’m tired - in drivers ed there’s still a few things that really stick out to me ... shoulder checking ... I still can hear her- my drivers ed instructor – in my head sometimes - [when asked about most influential mode] I feel like it would just be my parents because they’re the ones who basically taught me how to drive. So, I listen to them the most <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - Overt Verbal Communication ↔ Family <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - discussion with family members <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - one of two most influential modes - parents are highly effective with this mode <p><i>Concluded level:</i> HIGH. P6 found overt verbal communication to be one of the two most influential modes of cultural model transmission, particularly her parents’ driving lessons (“they’re</p>

		<p>the ones who basically taught me how to drive. So, I listen to them the most”). Beyond parents’ lessons, the mode has also been impactful to P6’s MM development by hearing stories of peers’ incidents, which indicate how hazardous rural driving can be, convincing P6 to drive more cautiously. As well, siblings hassle P6 for driving too fast, which impacts her driving by signalling it is an unacceptable rural driving behaviour. Similarly, P6’s driver’s education instructor communicated to her that safe driving practices were required for rural driving, which has left a lasting impact on her practices (“I still can hear her- my drivers ed instructor – in my head sometimes”).</p>
<p>Mode – Parenting Style (Regarding Driving)</p>	<p>Definitely my upbringing from my parents – like telling me what I should do and shouldn’t do – they kind of influenced me by that.</p> <p>P: [Parents are] pretty easy-going and they trust me. But when it comes to driving, especially when I was learning, in the vehicle they always had stuff to say. Like, “oh you’re turning your corners too fast”. Like they’re always there. Constantly nagging me about things. I feel like they still do once in a while and I’m just like “okay I’ve been driving for a while now, are you kidding? Lay off a little bit.” But yeah, they still do. They always think I can do better but...</p> <p>E: Do you find that’s a good thing?</p> <p>P: Yeah it is.</p> <p>So, since [parents have] said some things to me so often, I’ll be driving and still have their voice in my head like, “I should not turn my corners too fast”. Like it’s still with me. So, it’s helped me.</p> <p>P: [When asked about most influential mode] I feel like it would just be my parents because they’re the ones who basically taught me how to drive. So, I listen to them the most.</p> <p>E: Yeah. When you say your parents, like everything that comes with that? Because you talked about how trusting they are, some things they said. So that’s all kind of encompassed?</p> <p>P: Mhm.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - my upbringing from my parents – like telling me what I should do and shouldn’t do – they kind of influenced me by that - [parents are] pretty easy-going and they trust me. But when it comes to driving, especially when I was learning, in the vehicle they always had stuff to say. Like, “oh you’re turning your corners too fast” - [parents] constantly nagging me about things. I feel like they still do once in a while ... it is [a good thing] - [parents have] said some things to me so often, I’ll be driving and still have their voice in my head like, “I should not turn my corners too fast” ... it’s helped me - [when asked about most influential mode] I feel like it would just be my parents because they’re the ones who basically taught me how to drive. So, I listen to them the most <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - parents’ trust in P6 - P6’s perception of parents as safe drivers <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - limited information on the driving practices of others <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - one of two most influential modes <p><i>Concluded level:</i> HIGH. Parenting style is one of the two most impactful modes of cultural model transmission experienced by P6 (“my parents ... they’re the ones who basically taught me</p>

		<p>how to drive. So, I listen to them the most”). Parents have set rules for P6, telling her what she should and should not do while driving. These rules stick with P6 while driving (“I’ll be driving and still have their voice in my head like, ‘I should not turn my corners too fast”). As well, parents trust P6 to drive safely, yet often tell her how to further improve – to the point that P6 perceives it as nagging (“constantly nagging me about things”). However, P6 also indicates that this “nagging” is “a good thing”, though she does not elaborate on how exactly. Based on her narrative, it seems that the trust, rules, and suggestions that parents provide P6 with reveal to her some particular facets of the cultural model of rural driving (e.g., controlled and defensive driving is required) and that they have a strong impact on her developing her MM of driving.</p>
<p>Mode – Punishment</p>	<p>Yeah, I’m way more aware [in the city] and there’s more rules too I would say ... because there’s traffic lights and stuff and there’s not at the farm.</p> <p>I’ve never gotten a speeding ticket or anything. I have gotten a couple parking tickets. That would be about it ... Yeah, I got two parking tickets. Otherwise, I’ve never been stopped or warned or anything.</p> <p>E: So, the fact that you haven’t been ticketed or anything before, does that affect your driving at all? P: I feel like it does because I’m just going to keep doing what I’m doing. It must be good.</p> <p>E: Yeah. What about your siblings or parents, any offences there that you feel like sharing? P: No, they haven’t. Maybe like one speeding ticket but that’s about it.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - there’s more rules [in the city] too I would say ... because there’s traffic lights and stuff and there’s not at the farm - never gotten a speeding ticket or anything - never been stopped or warned or anything - just going to keep doing what I’m doing. It must be good - [family members have had] maybe like one speeding ticket but that’s about it <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Punishment → MM Driving - CM Rural → (-) Punishment → MM Driving - IM ← (-) Punishment - CM Urban → Punishment → MM Driving - CM Urban → (-) Punishment → MM Driving - Punishment ↔ Driving Authority <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - presence/absence of traffic regulation (e.g., lights or police officers) - lack of legal reprimand for driving violations <p><i>Concluded level:</i> MODERATE. For punishment, the presence/absence of traffic regulation (e.g., lights or police officers) indicates to P6 driving expectations for both rural and urban areas. For example, higher regulation in urban areas (more</p>

		<p>traffic lights and police officers) suggests that the cultural model of urban driving is intolerant of reckless driving practices. From personal experience, P6 has not encountered legal reprimand for driving violations, suggesting to her that her driving is in line with legal expectations in both rural and urban areas (“just going to keep doing what I’m doing. It must be good”). Likewise, family members receiving just one, if any, traffic tickets demonstrates that such driving is appropriate within rural areas.</p>
<p>Mode – Monitoring</p>	<p>P: [Parents are] pretty easy-going and they trust me. But when it comes to driving, especially when I was learning, in the vehicle they always had stuff to say. Like, “oh you’re turning your corners too fast”. Like they’re always there. Constantly nagging me about things. I feel like they still do once in a while and I’m just like “okay I’ve been driving for a while now, are you kidding? Lay off a little bit.” But yeah, they still do. They always think I can do better but...</p> <p>E: Do you find that’s a good thing? P: Yeah it is.</p> <p>So, since [parents have] said some things to me so often, I’ll be driving and still have their voice in my head like, “I should not turn my corners too fast”. Like it’s still with me. So, it’s helped me.</p> <p>Lots of times I’ll drive my sister and her friends around places and I’ve always noticed that they’re on their phones and not even paying attention. And when I do drive with other people I definitely drive more cautious just knowing that their lives are in my hands.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - in the vehicle [parents] always had stuff to say. Like, “oh you’re turning your corners too fast”. Like they’re always there. - [parents] constantly nagging me about things. I feel like they still do once in a while and I’m just like “okay I’ve been driving for a while now, are you kidding? Lay off a little bit.” But yeah, they still do. They always think I can do better but ... it is [a good thing] - I’ll drive my sister and her friends around places and I’ve always noticed that they’re on their phones and not even paying attention - when I do drive with other people I definitely drive more cautious just knowing that their lives are in my hands <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Monitoring → MM Driving - IM ← Monitoring - Monitoring ← Family <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - respect for parents <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - P6 drives more cautiously even though passengers are not monitoring her driving <p><i>Concluded level:</i> MODERATE. Monitoring, particularly, from P6’s parents, imparts knowledge of the cultural model of rural driving. That is, P6’s parents are high-monitoring when in the vehicle with her, which seems to enforce the large responsibility of driving and driving safety. Although P6 can be annoyed by this monitoring, she sees it as “a good thing” and appears to</p>

		embrace her parents' message. A more ambiguous finding is that, when passengers (e.g., sister and sister's friends) are not monitoring her driving, P6 still acts with caution, feeling responsible for the lives of her passengers. This finding may suggest that monitoring is not necessary for P6 to embrace cautious driving, but alternatively could indicate that this goal has already been instilled within P6 at this point via monitoring.
Mode – Print Educational Material	NO DATA	NO DATA
Source – Family	<p>[Siblings] influence me in a good way I would say. They'd always give me heck if they thought I was driving too fast or anything ... What they're saying actually makes a difference when ... driving.</p> <p>[Parents] would always set like good examples. They would never go over the speed or do anything to scare me. So, I was always calm with them which has influenced me to try to be a good driver and be careful.</p> <p>P: [Parents are] pretty easy-going and they trust me. But when it comes to driving, especially when I was learning, in the vehicle they always had stuff to say. Like, "oh you're turning your corners too fast". Like they're always there. Constantly nagging me about things. I feel like they still do once in a while and I'm just like "okay I've been driving for a while now, are you kidding? Lay off a little bit." But yeah, they still do. They always think I can do better but...</p> <p>E: Do you find that's a good thing?</p> <p>P: Yeah it is.</p> <p>So, since [parents have] said some things to me so often, I'll be driving and still have their voice in my head like, "I should not turn my corners too fast". Like it's still with me. So, it's helped me.</p> <p>E: Yeah. What about your siblings or parents, any offences there that you feel like sharing?</p> <p>P: No, they haven't. Maybe like one speeding ticket but that's about it.</p> <p>P: [When asked about most influential mode] I feel like it would just be my parents because they're the ones who basically taught me how to drive. So, I listen to them the most.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - [siblings] influence me in a good way I would say - [siblings] always give me heck if they thought I was driving too fast ... actually makes a difference when ... driving - [parents] would always set like good examples. They would never go over the speed or do anything to scare me ... always calm with them which has influenced me to try to be a good driver and be careful - [parents are] pretty easy-going and they trust me. But when it comes to driving, especially when I was learning, in the vehicle they always had stuff to say. Like, "oh you're turning your corners too fast" - [parents] constantly nagging me about things. I feel like they still do once in a while ... it is [a good thing] - [parents have] said some things to me so often, I'll be driving and still have their voice in my head like, "I should not turn my corners too fast" ... it's helped me - [family members have had] maybe like one speeding ticket but that's about it - [when asked about most influential mode] I feel like it would just be my parents because they're the ones who basically taught me how to drive. So, I listen to them the most <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Family → MM Driving - IM ← Family - Family ↔ Overt Verbal Communication - Family → Monitoring <p><i>Fostered by:</i></p>

	<p>E: Yeah. When you say your parents, like everything that comes with that? Because you talked about how trusting they are, some things they said. So that's all kind of encompassed? P: Mhm.</p>	<p>- overt verbal communication and parenting style</p> <p><i>Other comments:</i></p> <p>- parents part of the most influential modes (overt verbal communication and parenting style)</p> <p><i>Concluded level:</i> HIGH. Despite the cultural model of rural driving being perceived by P6 as primarily unsafe, her family effectively provides evidence for there being a portion of safe driving practices in this model too. P6's siblings are positive influences, conveying to P6 the safe aspects of the cultural model of rural driving, such as the appropriateness of driving within the speed limit (“[siblings] always give me heck if they thought I was driving too fast ... actually makes a difference when ... driving”). P6's parents also set similar encouraging driving examples (“never go over the speed or do anything to scare me”). Though there is “nagging” from parents for P6 to drive safer and better, she is ultimately appreciative of it. The impact that family has on P6's MM development is further evidenced in parents being a key component of the modes of model transmission that P6 identifies as being most impressionistic on her (overt verbal communication and parenting style).</p>
<p>Source – Friends and Peers</p>	<p>Maybe my friends [influenced driving] too because when I first started driving I'd meet with them driving and then- they were more risky drivers so then I think that influenced me a little bit because I'd feel like “oh it's okay if I'm a little bit over the speed limit because my friends do it all the time”.</p> <p>I feel like [friends] drive pretty dangerously at times. Just sitting there and being in the vehicle like, I just don't want to be like that because it scares me. I've been with my friends when they've almost been in accidents. One time I was with her and even just being in that vehicle and being with her I'm like- I'm going to drive more cautiously myself because I don't want to put other people in danger.</p> <p>Especially when I lived at home and our roads would just get graveled, my one friend would drive really fast on them. That really scares me because we would like fishtail or swerve ... We kind of ended up flying in the ditch and it was really steep. So, after that I was like “I</p>	<p><i>Key words:</i></p> <p>- [friends] were more risky drivers so then I think that influenced me a little bit because I'd feel like “oh it's okay if I'm a little bit over the speed limit because my friends do it all the time”</p> <p>- [friends] drive pretty dangerously at times. Just sitting there and being in the vehicle like, I just don't want to be like that because it scares me</p> <p>- I've been with my friends when they've almost been in accidents ... I'm going to drive more cautiously myself because I don't want to put other people in danger</p> <p>- my one friend would drive really fast ... That really scares me because we would like fishtail or swerve ... We kind of ended up flying in the ditch and it was really steep</p> <p>- a couple of guys in my class ... rolled their vehicle ... because of that sometimes I'm really cautious when I'm tired</p> <p><i>Relationships:</i></p>

	<p>always need to be extra careful” because you never know. Just like any little thing you do wrong could result in not good.</p> <p>In my grade there’s a couple of guys in my class that actually got in an accident where they rolled their vehicle and the reason was they partied the night before and they were really tired and on a long road trip. So, because of that sometimes I’m really cautious when I’m tired. So that.</p>	<ul style="list-style-type: none"> - CM Rural → Friends and Peers → MM Driving - IM → (-) Friends and Peers <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - resistance against internalizing others’ unsafe driving practices <p><i>Concluded level:</i> MODERATE. Friends emphasize to P6 the unsafe driving practices characteristic of the cultural model of rural driving (e.g., speeding, swerving, and fishtailing). P6 rejects driving practices perceived as overly reckless out of fear for her own and, especially, others’ safety (“I’m going to drive more cautiously myself because I don’t want to put other people in danger”). This rejection of the cultural model of rural driving is also a result of stories about P6’s peers getting into driving incidents for senseless practices (e.g., driving while overly tired). It is possible that the resistance against the cultural model of unsafe rural driving is in part due to P6’s individual model of driving, predominantly expressive of safe driving practices.</p>
<p>Source – Driving Authority</p>	<p>When I was in drivers ed there’s still a few things that really stick out to me I guess. Like shoulder checking and that type of thing. I still can hear her- my drivers ed instructor – in my head sometimes.</p> <p>I’ve never gotten a speeding ticket or anything. I have gotten a couple parking tickets. That would be about it ... Yeah, I got two parking tickets. Otherwise, I’ve never been stopped or warned or anything.</p> <p>E: So, the fact that you haven’t been ticketed or anything before, does that affect your driving at all? P: I feel like it does because I’m just going to keep doing what I’m doing. It must be good.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - in drivers ed there’s still a few things that really stick out to me ... shoulder checking ... I still can hear her- my drivers ed instructor – in my head sometimes - never gotten a speeding ticket or anything - never been stopped or warned or anything - just going to keep doing what I’m doing. It must be good <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Driving Authority → MM Driving - CM Rural → (-) Driving Authority → MM Driving - IM ← (-) Driving Authority - CM Urban → Driving Authority → MM Driving - CM Urban → (-) Driving Authority → MM Driving - Driving Authority ↔ Punishment <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - lack of negative consequences provided by driving authority <p><i>Concluded level:</i> MODERATE. Relatively little information is provided on driving authority. What is evident on this source is that P6’s driver’s education instructor relayed to P6 that shoulder</p>

		checking is necessary when driving, which P6 considers important to this day. As well, driving authorities have not created negative consequences for P6's driving, indicating to her that her driving is acceptable in both rural and urban cultural models.
Source – Other Drivers (community, strangers, etc.)	<p>That's when I fully learned to drive because where I grew up there's no one really, not many vehicles, not much traffic, not much to be careful about.</p> <p>When you're in the town you can kind of get away with- like even in my exam, the parallel parking it really wasn't anything like it is Saskatoon. Like we would just go behind a vehicle but there wasn't another vehicle behind us. Like it was all different and easier I feel.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - [beginning city driving is] when I fully learned to drive because where I grew up there's no one really, not many vehicles, not much traffic, not much to be careful about - in the city I feel like you learn how to do everything - even in my exam, the parallel parking it really wasn't anything like it is Saskatoon <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → MM Driving - IM ← Other Drivers - CM Urban → MM Driving <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - high traffic volume <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - low traffic volume <p><i>Concluded level:</i> MODERATE. Relatively little information is provided on other drivers. What is evident is that other drivers provide P6 with examples of rural and urban cultural models of driving. The cultural model of urban driving is better learned from other drivers because of higher traffic volume in the city. Correspondingly, a lack of drivers in rural areas makes it difficult to learn the full range of driving techniques available to P6 (“in my [driver's] exam [in rural Saskatchewan], the parallel parking, it really wasn't anything like it is Saskatoon”).</p>
Participant 7 (7173)		
Construct	Transcript Excerpts	Analysis
Model – Cultural Model of Rural Driving	<p>There aren't buses or taxis; you have to drive.</p> <p>Experiencing parties and stuff like that where people go there, bring a vehicle full of people and the driver is drinking or something like that.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - there aren't buses or taxis; you have to drive - the driver is drinking

<p>Well then, I've definitely driven home a lot more people than there are seatbelts for in my vehicle because the only other option would be for them driving back with an impaired driver.</p> <p>So, you feel personally responsible for anything that would happen because you didn't allow more people to come in and- even the law enforcement in small towns know this. If you would- I never experienced this but like friends who have had one more person then there is a seatbelt in their vehicle, you know driving back on a Friday night or Saturday morning and he was like, "officer, they would have driven home drunk". Law enforcement knows that one is a lot more worse and dangerous for the safety of the individual and others than the other.</p> <p>Even parents have come and picked up a car full of people, way more than they should.</p> <p>There is a lot of drinking and driving in small towns that I've experienced, which is horrible, and the mindset is often like "oh well two or three drinks is not going to really matter" and it's crazy.</p> <p>I think drinking culture itself is a big thing. Like if you're going to go to a party, the peer pressure to drink is off the charts like "come on just one".</p> <p>There is one parent of a peers of mine who had a DUI, so they had that breathalyzer thing in the vehicle. So, they would drive with it, but they would have their kid there too so that every time it beeps (you need to blow in it to keep driving), they would just get their kid to blow in it because the parent didn't want to quit drinking and driving. Yeah, it's not as shamed as it should be within the peers and community. Like no one's really telling them to stop and there is no repercussions if they don't get caught or if they don't hurt themselves or others.</p> <p>E: And getting caught, is that something that people- that you feel people face a lot? Like to a lot of people get caught? P: Not as often as they should and when people do get caught, it's just kind of like- I feel like most other crimes, you know if they get a huge fine, everybody's like "dude, you're stupid". But if someone gets a DUI, from my personal experience from knowing quite a few people</p>	<ul style="list-style-type: none"> - definitely driven home a lot more people than there are seatbelts for ... only other option would be for them driving back with an impaired driver - "officer, they would have driven home drunk" - law enforcement knows - even parents have come and picked up a car full of people, way more than they should - a lot of drinking and driving - the mindset is often like "oh well two or three drinks is not going to really matter" - drinking culture itself is a big thing - the peer pressure to drink is off the charts - they would just get their kid to blow in [the breathalyzer] - the parent didn't want to quit drinking and driving - [drinking and driving is] not as shamed as it should be within the peers and community - no repercussions if they don't get caught or if they don't hurt themselves - if someone gets a DUI ... there's no social repercussions; everyone just kind of gives them a pat on the back - everyone I know in high school who got a DUI was a male - drinking culture too ... Is more geared towards males - more socially acceptable for women to [be designated drivers] ... But when men do that they're seen as pussies - girls were more expected to follow the rules - nobody really cares that the rules are being broken or that people's safety is at risk - "I've done it this way forever and no problems thus far" <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Rural → Overt Verbal Communication → MM Driving - CM Rural → (-) Punishment → MM Driving - CM Rural → Monitoring → MM Driving - CM Rural → Friends and Peers → MM Driving - CM Rural → Driving Authority → MM Driving - CM Rural → Other Drivers → MM Driving <p><i>Fostered by:</i></p>
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	<p>who had DUIs in high school and stuff like that, there's no social repercussions; everyone just kind of gives them a pat on the back.</p> <p>Everyone I know in high school who got a DUI was a male which I think is a big part of that drinking culture too. It is more geared towards males. And it's more socially acceptable for women to [be designated drivers] and go there and not drink or just drink Gatorade or something like that. But when men do that they're seen as pussies or whatever.</p> <p>I feel like the girls were more expected to follow the rules and stuff like that. And then the guys who are speeding.</p> <p>It's just crazy the kind of culture that leads to- like people are so accepting and nobody really cares that the rules are being broken or that people's safety is at risk. Even if somebody's just not wearing a seatbelt. You know, that person's safety is in danger.</p> <p>Yeah people just don't take what you're supposed to do very seriously. Like "I've done it this way forever and no problems thus far".</p>	<ul style="list-style-type: none"> - viewing and discussing unsafe driving practices of friends, peers, and other drivers in the community - lack of social or legal repercussions for unsafe driving practices - lack of safe driving alternative - party/drinking culture in rural Saskatchewan <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - driving unsafely is sometimes done out of perceived necessity - drinking and driving continues in part because there are no perceived negative repercussions if nothing bad happens <p><i>Conclusion:</i> The cultural model of rural driving is seen by P7 as centred around socially acceptable drinking and drunk driving. Drunk driving is commonplace and acceptable even among parents ("they would just get their kid to blow in [the breathalyzer]"). P7 sees the widespread indifference toward drunk driving as coming from unavailable safe alternatives (e.g., taxis), drinking culture in general (e.g., the widespread engagement in drinking, peer pressure), and a lack of negative repercussions for drunk driving practices. In fact, receiving a DUI is almost a mark of achievement for P7's peers. This tolerance for drunk driving – and drinking in general – is geared mostly toward males; females are seen as typical designated drivers. Breaking other traffic laws (e.g., passenger capacity) is seen as acceptable, even by parents and police, given it is the "lesser of two evils" (i.e., drunk driving).</p>
<p>Model – Individual Model of Driving</p>	<p>Well driver's ed, it was in my hometown and we just drove around our town. And did a little bit of highway driving. We were supposed to do a city drive in Prince Albert and that was like our one half an hour of experiencing city driving but the highway was really bad that spring that I was supposed to go. So, I never drove in P.A. The biggest city I ever drove in was Melfort and I don't think that prepared me at all for driving in bigger cities, especially in Saskatoon.</p> <p>Getting my drivers license but I've barely even experienced red lights or anything like that or like lane-switching, it was a lot. Like I got this license and I'm not prepared for everything that driving has.</p> <p>My parents- the system- drivers ed and the process leading up to your test is kind of weird how you're just supposed to learn everything from</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - driver's ed, it was in my hometown and we just drove around our town - the biggest city I ever drove in was Melfort and I don't think that prepared me at all for driving in bigger cities, especially in Saskatoon - barely even experienced red lights - got this license and I'm not prepared - you're just supposed to learn everything from your parents - if your parents aren't very good drivers then you don't really have anyone else to ask questions - [parents] don't have the skills to teach - I don't like driving - I don't think that I have enough experience

<p>your parents. And if your parents aren't very good drivers then you don't really have anyone else to ask questions for- like questions to deflect that. When I would practice driving with my parents in the passenger seat, they would often just tell me "oh don't do that". "Well what am I supposed to do?" "I don't know, just don't do that". Like they don't have the skills to teach.</p> <p>I just don't like driving. I'm a nervous driver. I don't think that I have enough experience. That's why I put off getting my drivers license for so long – for like a year.</p> <p>Definitely. I think just any situation that I'm more comfortable with and that I've actually done with parents and my drivers education teacher- like I can highway drive perfectly and I don't get nervous at all during highway driving. But when I am in a situation that I'm by myself and I haven't experienced the situation with the driver's education teacher or parent to ask them questions, it's a lot more difficult to remember the booklet and what it told me to do.</p> <p>I tend to stick to the rules and- except when it comes to a situation where it's kind of "okay of these two situations, putting an extra person in my car or having them drive home drunk" I feel responsible for other people's safety sometimes.</p> <p>M: So, hearing your friends say something like that, with the peer pressure, does that come into play at all in your driving? P: When I'm driving no.</p> <p>[Mom's] a nervous driver in the city so then she's an even more nervous driver trying to teach me to drive in the city. It just kind of amplifies her nervousness and I think that really is where my driving anxiety comes from.</p>	<ul style="list-style-type: none"> - I can highway drive perfectly and I don't get nervous at all - I tend to stick to the rules ... except when it comes to a situation where it's kind of "okay of these two situations, putting an extra person in my car or having them drive home drunk" - with the peer pressure, does that come into play at all in your driving? ... No - [driving in the city] kind of amplifies [mom's] nervousness and I think that really is where my driving anxiety comes from <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - IM ← Overt Verbal Communication - IM → (-) Overt Verbal Communication - IM → (-) Punishment - IM ← Monitoring - IM ← Family - IM ← Friends and Peers - IM → (-) Friends and Peers - IM ← Driving Authority <p><i>Hindered by:</i></p> <ul style="list-style-type: none"> - inadequate driver's training; limited experience needed to build strong IM <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - P7 does not like to drive - P7 is a nervous driver because of a perceived lack of experience <p><i>Conclusion:</i> A strong individual model of driving has yet to be established for P7. Although she has gained driving experience through driver's education in rural Saskatchewan, it is insufficient for confidently driving in cities like Saskatoon, where she has received minimal driver's experience ("barely even experienced red lights"). Instead, confident driving in confined only to P7's rural and highway driving. Beyond inadequate driver's training, P7's nervousness and perceived inexperience in city driving appears to stem from her parents who she states are not skilled enough to teach driving and, in the case of her mother, hampers her driving by outwardly expressing nervousness while driving in the city. In rural areas, P7 tends to</p>
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		<p>avoid unsafe driving practices (also reflected in her questionnaire scores), as well as giving into peer pressure, but has exceeded passenger capacity to prevent others from driving drunk (“okay of these two situations, putting an extra person in my car or having them drive home drunk”). P7’s resistance to peer pressure could be aided by drinking and driving gender norms that she has identified, where males are typically the drinkers and unsafe drivers; females the designated drivers.</p>
<p>Model – Cultural Model of Urban Driving</p>	<p>Driving with a friend [in Saskatoon] and one person ... they were changing lanes and they shoulder checked and my friend was like "you shoulder check? Like who does that?". Like "aren't you supposed to?"</p> <p>[Mom’s] a nervous driver in the city so then she's an even more nervous driver trying to teach me to drive in the city. It just kind of amplifies her nervousness and I think that really is where my driving anxiety comes from.</p> <p>I've never had an experience with the police while I've been driving.</p> <p>I've never really been punished for driving by ... police or anything like that but just seeing other people's punishments has affected me</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - driving with a friend and one person ... they were changing lanes and they shoulder checked and my friend was like "you shoulder check? Like who does that?". Like "aren't you supposed to?" - [mom’s] an even more nervous driver ... in the city ... and I think that really is where my driving anxiety comes from - I've never had an experience with the police while I've been driving - never really been punished for driving by ... police - just seeing other people's punishments has affected me <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Urban → Observation and Modeling → MM Driving - CM Urban → Punishment → MM Driving - CM Urban → Punishment (-) → MM Driving - CM Urban → Monitoring → MM Driving - CM Urban → Family → MM Driving - CM Urban → Driving Authority → MM Driving - CM Urban → Driving Authority (-) → MM Driving <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - inexperience driving in the city - aversion to driving in the city <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - little information perhaps due to P7 disliking and avoiding driving in the city <p><i>Conclusion:</i> P7 provides minimal direct information on the cultural model of urban driving, potentially because she dislikes and avoids driving in the city, preventing her from establishing a</p>

		discernable private cultural model of urban driving. What can be seen though, is that P7's private cultural model of driving is one that instils nervousness in her, partly from watching her mother nervously drive.
Mode – Observation and Modeling	<p>P: We watched like one five-minute video maybe like "if you're in this situation this is what it will look like". Other than that, it was just lectures from our teacher.</p> <p>E: And that was not sufficient?</p> <p>P: I don't think so.</p> <p>Experiencing parties and stuff like that where people go there, bring a vehicle full of people and the driver is drinking or something like that.</p> <p>Even parents have come and picked up a car full of people, way more than they should.</p> <p>There is a lot of drinking and driving in small towns that I've experienced, which is horrible, and the mindset is often like "oh well two or three drinks is not going to really matter" and it's crazy.</p> <p>Knowing quite a few people who had DUIs in high school and stuff like that, there's no social repercussions; everyone just kind of gives them a pat on the back.</p> <p>Everyone I know in high school who got a DUI was a male which I think is a big part of that drinking culture too. It is more geared towards males. And it's more socially acceptable for women to [be designated drivers] and go there and not drink or just drink Gatorade or something like that. But when men do that they're seen as pussies or whatever.</p> <p>I feel it's a lot more accessible for boys to speeds and for boys to do doughnuts or whatever. I feel like the guys, when they would get together they would just go for a drive as like social activity just like along backroads and whatever. And girls, there wasn't really much of that. So, I feel like the girls were more expected to follow the rules and stuff like that. And then the guys who are speeding.</p> <p>Every person who I've heard who has like a crash or something, they always blame the situation, right? I've never heard of somebody saying</p>	<p>discernable private cultural model of urban driving. What can be seen though, is that P7's private cultural model of driving is one that instils nervousness in her, partly from watching her mother nervously drive.</p> <p><i>Key words:</i></p> <ul style="list-style-type: none"> - watched like one five-minute video ... was not sufficient - parties ... where people go there, bring a vehicle full of people and the driver is drinking - even parents have come and picked up a car full of people, way more than they should - a lot of drinking and driving ... which is horrible ... it's crazy - there's no social repercussions [for drinking and driving]; everyone just kind of gives them a pat on the back - everyone I know in high school who got a DUI was a male - drinking culture too ... Is more geared towards males - more socially acceptable for women to [be designated drivers] ... But when men do that they're seen as pussies - girls were more expected to follow the rules - every person who I've heard who has like a crash or something, they always blame the situation - just seeing other people's punishments has affected me - [when asked about the most influential mode] I think it's mostly my peer groups that have influenced my driving and the behaviours of other people in your peer group - seeing your friends drive when you're in a vehicle ... gives you an example of how you should be driving and of what's necessary and what's not necessary too, like shoulder checking <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Urban → Observation and Modeling → MM Driving - Observation and Modeling ← Friends and Peers <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - friends as the object of observation - perceiving others' driving behaviours to be bad examples <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - impersonal observation (e.g., watching an instructional video)

	<p>like "oh I got into a car crash and I've learned my lesson. I'm not going to do this anymore. It was my fault because they did this".</p> <p>I've never really been punished for driving by parents or police or anything like that but just seeing other people's punishments has affected me.</p> <p>[When asked about the most influential mode] I think it's mostly my peer groups that have influenced my driving and the behaviours of other people in your peer group ... I'd say seeing your friends drive when you're in a vehicle, I feel like a that kind of gives you an example of how you should be driving and of what's necessary and what not necessary too, like shoulder checking.</p>	<p><i>Other comments:</i></p> <ul style="list-style-type: none"> - cited as most influential mode of transmission <p><i>Concluded level:</i> HIGH. Observation and modeling is outwardly identified by P7 as the most influential mode of cultural model transmission. Most impactful is when P7 observes friends, whose actions have persuaded her that shoulder-checking is unnecessary. Seeing others punished for driving offences (e.g., being ticketed) also affects P7's driving. P7 frequently sees her peers drive drunk and social approval of such acts, effectively transmitting to her the cultural model of rural driving. Similarly, P7's MM is developed by observing the driving behaviours of friends' parents (e.g., exceeding passenger limit) and gender norms of drinking and drunk driving (e.g., males are reckless; females are law-abiding designated drivers). Less impactful is observing impersonal situations, such as videos in driver's education.</p>
<p>Mode – Overt Verbal Communication</p>	<p>And if your parents aren't very good drivers then you don't really have anyone else to ask questions.</p> <p>When I would practice driving with my parents in the passenger seat, they would often just tell me "oh don't do that". "Well what am I supposed to do?" "I don't know, just don't do that". Like they don't have the skills to teach.</p> <p>P: We watched like one five-minute video maybe like "if you're in this situation this is what it will look like". Other than that, it was just lectures from our teacher. E: And that was not sufficient? P: I don't think so.</p> <p>If you're going to go to a party, the peer pressure to drink is off the charts like "come on just one".</p> <p>I've also heard people at parties- my friend was sober, and she was driving a whole bunch of people home and one guy said "can I come with you" she said no that she had a full vehicle. "Okay I'm going to drive home drunk and if I get in a car crash and die that's your fault". He said that to her and she said, "uh, okay you can squeeze in".</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - if your parents aren't very good drivers then you don't really have anyone else to ask questions - [parents] would often just tell me "oh don't do that" ... Like they don't have the skills to teach - just lectures from our teacher ... was not sufficient - peer pressure ... "come on just one" - "Okay I'm going to drive home drunk and if I get in a car crash and die that's your fault" ... "Uh, okay you can squeeze in" - talking with my family and stuff, [cousins who passed away in traffic incidents] comes up in conversations ... It's really eye-opening of what can happen - the conversations about driving, people don't take it as seriously as I think they should - "you're the only friend I know who shoulder checks, that's what mirrors for" - with the peer pressure, does that come into play at all in your driving? ... No - people are like "who does that?" Like, I do ... I failed twice for doing it, so I better learn my lesson - discussions around car accidents always putting blame on another person which makes me very nervous when I'm driving

	<p>I've had two cousins who have passed away from car crashes and I know it comes up- like talking with my family and stuff, it comes up in conversations every once in a while, and it's really a personal connection to it. It's really eye-opening of what can happen.</p> <p>The conversations about driving, people don't take it as seriously as I think they should. I think that's a common theme that I see a lot. Even just the other day I was driving with a friend and one person- it was in Saskatoon- and they were changing lanes and they shoulder checked and my friend was like "you shoulder check? Like who does that?". Like "aren't you supposed to?" She was like "you're the only friend I know who shoulder checks, that's what mirrors for". Like I don't know, everybody kind of has their own style of driving and not all of those are what we're taught to do and what's the safest.</p> <p>M: So, hearing your friends say something like that, with the peer pressure, does that come into play at all in your driving? P: When I'm driving no.</p> <p>People are like "who does that?" Like, I do. Like "Why do you do that, nobody is coming?". Well I failed twice for doing it, so I better learn my lesson.</p> <p>I feel like the discussions around car accidents always putting blame on another person which makes me very nervous when I'm driving because even if they were doing the right things and this happened to them, then if I'm doing the right things that could happen to me too. But I don't know how much of that is true or if they're just trying to dismiss the blame.</p> <p>I was talking to my parents about [a friend's accident] and asked, "if I hit a deer, what would you do?" "Well it would depend on the situation and we would probably ask if you are okay and if you are okay, that would be the main thing. Like we don't care about the vehicle".</p>	<p>- "we would probably ask if you are okay and if you are okay ... we don't care about the vehicle"</p> <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Overt Verbal Communication → MM Driving - IM ← Overt Verbal Communication - IM → (-) Overt Verbal Communication - Overt Verbal Communication ↔ (-) Family <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - emotionally-charged or high-stakes conversations <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - parents being inadequate teachers - impersonal conversations <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - conversations with others shows that they blame environmental factors or other drivers for accidents, which makes P7 nervous about driving <p><i>Concluded level:</i> MODERATE. This mode is effective just through casual conversations (e.g., hearing that others do not take driving safety seriously), and is especially effective when stakes are high, such as with threats (e.g., "I'm going to drive home drunk and if I get in a car crash and die that's your fault") or personal loss (e.g., talking about cousins who died in traffic incidents). However, the effectiveness of this mode for P7 is dampened by parents who are poor drivers (making for ineffective teaching) and – similar to observation and modeling – impersonal scenarios, such as lectures in driver's education.</p>
<p>Mode – Parenting Style (Regarding Driving)</p>	<p>E: In general do you find that your parents are more controlling, or permissive, or somewhere between? P: Somewhere in between ... in general.</p> <p>In driving they were a little more on the permissive side. To my older</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - somewhere in between [controlling and permissive] ... in general - in driving [parents] were a little more on the permissive side

	<p>brother they were more harsh on him and letting him take the vehicle and stuff like that but that was because he had a history of not listening to them very well. But for me, I was a goody-goody. Well they thought so anyways. They let me have the vehicle whenever and I would tell them- even when I had my learners license for six months and could only take that one person, I would tell them that I'm taking my three friends to the beach, like they wouldn't care. So that was kind of their attitude.</p> <p>E: Sounds like they didn't set a lot of rules about driving? P: No. E: What'd you think of that? P: It was good.</p> <p>I enjoyed the freedom of just being able to take their vehicle whenever. And I didn't really have a curfew or anything, so it was nice just to be- to drive around and chat with friends or go to parties and stuff like that.</p> <p>P: Yeah, I definitely knew that if I did one thing wrong or if I did get a ticket for something then all of that would be gone, you know? I definitely didn't take that trust in light. Like I held it in high regards because I knew that it can be gone.</p> <p>When I go home I can still drive whenever I want. And my mom has two vehicles, so I can just take one and she'll still have one if she needs to get around, so I can have it for as long as I want. And sometimes when she comes into the city, she'll pick me up and we can switch spots and I'll drive to the restaurant if we're going out for supper or something. She just lets me do my thing and she's not really like a backseat driver or anything. She just doesn't care.</p>	<ul style="list-style-type: none"> - to my older brother they were more harsh on him ... he had a history of not listening ... I was a goody-goody - they let me have the vehicle whenever and I would tell them - when I had my learners license for six months and could only take that one person, I would tell them that I'm taking my three friends to the beach, like they wouldn't care - didn't set a lot of rules about driving ... it was good - I enjoyed the freedom - I didn't really have a curfew ... it was nice - I definitely knew that if I did one thing wrong ... then all of that would be gone, you know? - I held [parents' trust] in high regards because I knew that it can be gone - [mom] just lets me do my thing and she's not really like a backseat driver <p><i>Concluded level:</i> MODERATE. Parents seem mostly permissive of P7's driving, though they were perhaps more authoritative for her brother. For P7, few driving-related rules were set – she could take her parent's vehicle when she wanted, did not have a curfew, and was allowed to exceed her passenger limit when leisurely driving. However, P7 was aware that any gross negligence would result in her freedom being revoked. These actions seem to have helped P7 establish a private cultural model of driving where traffic laws are flexible, but large transgressions are not tolerated by parents (though this latter finding is challenged by knowledge of at least one peer's parent driving drunk).</p>
<p>Mode – Punishment</p>	<p>You feel personally responsible for anything that would happen because you didn't allow more people to come in and- even the law enforcement in small towns know this. If you would- I never experienced this but like friends who have had one more person then there is a seatbelt in their vehicle, you know driving back on a Friday night or Saturday morning and he was like, “officer, they would have driven home drunk”. Law enforcement knows that one is a lot more worse and dangerous for the safety of the individual and others than the other.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - you feel personally responsible for anything that would happen - law enforcement knows - [drinking and driving is] not as shamed as it should be - no repercussions if they don't get caught or if they don't hurt themselves or others - if someone gets a DUI ... everyone just kind of gives them a pat on the back

<p>[Drinking and driving is] not as shamed as it should be within the peers and community. Like no one's really telling them to stop and there is no repercussions if they don't get caught or if they don't hurt themselves or others.</p> <p>E: And getting caught, is that something that people- that you feel people face a lot? Like to a lot of people get caught?</p> <p>P: Not as often as they should and when people do get caught, it's just kind of like- I feel like most other crimes, you know if they get a huge fine, everybody's like "dude, you're stupid". But if someone gets a DUI, from my personal experience from knowing quite a few people who had DUIs in high school and stuff like that, there's no social repercussions; everyone just kind of gives them a pat on the back.</p> <p>I tend to stick to the rules and- except when it comes to a situation where it's kind of "okay of these two situations, putting an extra person in my car or having them drive home drunk" I feel responsible for other people's safety sometimes.</p> <p>"Okay I'm going to drive home drunk and if I get in a car crash and die that's your fault". He said that to her and she said, "uh, okay you can squeeze in".</p> <p>It's just crazy the kind of culture that leads to- like people are so accepting and nobody really cares that the rules are being broken or that people's safety is at risk. Even if somebody's just not wearing a seatbelt. You know, that person's safety is in danger.</p> <p>I've had two cousins who have passed away from car crashes and I know it comes up- like talking with my family and stuff, it comes up in conversations every once in a while, and it's really a personal connection to it. It's really eye-opening of what can happen.</p> <p>I failed my drivers test twice for not doing it so now I always make a point to do it. People are like "who does that?" Like, I do. Like "Why do you do that, nobody is coming?". Well I failed twice for doing it, so I better learn my lesson. I feel like maybe for somebody else, it would've been like "oh I don't need to do that anymore" but I'd rather just do my own thing and I'm the one driving them, so they can walk if</p>	<ul style="list-style-type: none"> - I tend to stick to the rules ... except when it comes to a situation where it's kind of "okay of these two situations, putting an extra person in my car or having them drive home drunk" - "okay I'm going to drive home drunk and if I get in a car crash and die that's your fault" ... "Uh, okay you can squeeze in" - people are so accepting and nobody really cares that the rules are being broken - I've had two cousins who have passed away from car crashes ... It's really eye-opening of what can happen - failed my drivers test twice for not doing it so now I always make a point to do it - people just don't take what you're supposed to do very seriously. Like "I've done it this way forever and no problems thus far" - they always blame the situation - I definitely knew that if I did one thing wrong or if I did get a ticket for something then all of that [freedom] would be gone - I've never had an experience with the police while I've been driving - my friend who hit the deer, I guess that was kind of a punishment for not paying attention ... after that happened I am definitely more conscientious of my surroundings - just seeing other people's punishments has affected me <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → (-) Punishment → MM Driving - IM → (-) Punishment - CM Urban → Punishment → MM Driving - CM Urban → (-) Punishment → MM Driving - Punishment ↔ Driving Authority <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - parents or traffic system withholding driving privilege - strong emotional and mental punishment <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - lack of punishment teaches that some driving practices are okay
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	<p>they don't like it. Yeah people just don't take what you're supposed to do very seriously. Like "I've done it this way forever and no problems thus far".</p> <p>Every person who I've heard who has like a crash or something, they always blame the situation, right? I've never heard of somebody saying like "oh I got into a car crash and I've learned my lesson. I'm not going to do this anymore. It was my fault because they did this".</p> <p>I definitely knew that if I did one thing wrong or if I did get a ticket for something then all of that [freedom] would be gone, you know?</p> <p>I've never had an experience with the police while I've been driving.</p> <p>Back to the story of my friend who hit the deer, I guess that was kind of a punishment for not paying attention. Like driving and the deer ran onto the road and we hit it. Now whenever I'm on- especially on grid roads where I know there's lots of deer and moose and stuff like that, I definitely go a lot slower because I used to drive a lot on grid roads before that happened and I would just zoom by with the music all the way up and not really pay attention, but after that happened I am definitely more conscientious of my surroundings.</p> <p>I've never really been punished for driving by parents or police or anything like that but just seeing other people's punishments has affected me.</p>	<p>- P7 feels responsible for the safety of others. In other words, she is giving them rides to prevent feeling guilt in them driving drunk and perhaps getting injured</p> <p>- P7 sees other drivers blame circumstance for their incidents</p> <p><i>Concluded level:</i> HIGH. Punishment is a strong transmitter of cultural models of driving for P7. First, the emotional and mental punishment of having family pass away is a powerful indicator of cultural model ("it's really eye-opening of what can happen"). Such punishment is also evident with lesser but still impactful experiences like being a passenger when a friend hit a deer ("I guess that was kind of a punishment for not paying attention ... after that happened I am definitely more conscientious of my surroundings"). Second, P7 has seen others and herself be guilted into being designated driver for others, reinforcing the precariousness of rural driving culture. Third, a <i>lack</i> of legal and social punishment teaches that some driving practices are okay – whether benevolent (e.g., driving with too many people in the car if it's preventing drunk driving) or reckless (e.g., drinking and driving). However, having parents or the traffic system withhold privilege conveys to P7 an intolerance for reckless driving (e.g., "failed my drivers test twice for not doing it so now I always make a point to do it"). Lastly, others placing blame on circumstance for incidents suggests to P7 that rural driving is dangerous, either from unpredictability (circumstance) or an optimistic bias (other drivers). P7 mostly abides by traffic rules, though she does exceed maximum passenger limit to prevent drunk driving (which is in line with the cultural model of rural driving).</p>
Mode – Monitoring	<p>When I would practice driving with my parents in the passenger seat, they would often just tell me "oh don't do that". "Well what am I supposed to do?" "I don't know, just don't do that". Like they don't have the skills to teach.</p> <p>I was driving with a friend and one person- it was in Saskatoon- and they were changing lanes and they shoulder checked and my friend was like "you shoulder check? Like who does that?". Like "aren't you supposed to?" She was like "you're the only friend I know who shoulder checks, that's what mirrors for". Like I don't know,</p>	<p><i>Key words:</i></p> <p>- with my parents in the passenger seat, they would often just tell me "oh don't do that". "Well what am I supposed to do?" "I don't know, just don't do that". Like they don't have the skills to teach</p> <p>- driving with a friend and one person ... they were changing lanes and they shoulder checked and my friend was like "you shoulder check? Like who does that?". Like "aren't you supposed to?"</p> <p>- [mom's] a nervous driver in the city so then she's an even more nervous driver trying to teach me to drive in the city. It just kind of amplifies her nervousness</p>

	<p>everybody kind of has their own style of driving and not all of those are what we're taught to do and what's the safest.</p> <p>[Mom's] a nervous driver in the city so then she's an even more nervous driver trying to teach me to drive in the city. It just kind of amplifies her nervousness and I think that really is where my driving anxiety comes from.</p> <p>When I do the driving where I pull all over to the right to make a right turn, they comment on that. Sometimes when I do something else they're like, "wait, are you supposed to do that?" Like "I think so". And sometimes we we'll like Google it and they're like, "no you're not supposed to do that". I'm like, "oh okay." Or "yeah you are" and like, "oh I must have forgotten about that from drivers ed". I think just any differences or any time they see me do something that they don't do, sometimes they comment on it and sometimes it's just a comment and other times it's like "should I be doing that?" But I think I have a good group of friends who wouldn't penalize each other for following the rules too much. But I don't think I would be like- I don't think a friend would comment on my shoulder checking and I would feel the need to stop shoulder checking or something like that.</p>	<p>- I think just any differences or any time [friends] see me do something that they don't do, sometimes they comment on it and sometimes it's just a comment and other times it's like "should I be doing that?"</p> <p>- I have a good group of friends who wouldn't penalize each other for following the rules too much</p> <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - IM ← Monitoring - CM Urban → Monitoring → MM Driving - Monitoring ← (-) Family - Monitoring ← Friends and Peers <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - trust in friends <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - perceived inadequacy of parents' driving skills <p><i>Concluded level:</i> MODERATE. P7's private cultural models of driving are informed by monitoring, but primarily through friends whom she trusts. Conversely, P7's cultural models are not much impacted by monitoring from her parents, possibly because she perceives them to be poor drivers (e.g., her mom's nervousness "rubs off" on her).</p>
<p>Mode – Print Educational Material</p>	<p>[P7's driver's training] was not the same as practical experience and you can do so much work in a workbook or something like that, but it's like you can't learn to cook without getting in the kitchen, you know what I mean?</p> <p>When I am in a situation that I'm by myself and I haven't experienced the situation with the driver's education teacher or parent to ask them questions, it's a lot more difficult to remember the booklet and what it told me to do.</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - you can't learn to cook without getting in the kitchen - a lot more difficult to remember the booklet and what it told me to do <p><i>Concluded level:</i> LOW. Scarce information is given regarding how P7 sees this mode as transmitting cultural models of driving. What little information is given suggests this is an ineffective model (e.g., hard to remember her training booklet when in the moment of driving), piling in comparison to experiential learning.</p>
<p>Source – Family</p>	<p>Drivers ed and the process leading up to your test is kind of weird how you're just supposed to learn everything from your parents. And if your parents aren't very good drivers then you don't really have anyone else to ask questions for- like questions to deflect that. When I</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - you're just supposed to learn everything from your parents - if your parents aren't very good drivers then you don't really have anyone else to ask questions

	<p>would practice driving with my parents in the passenger seat, they would often just tell me "oh don't do that". "Well what am I supposed to do?" "I don't know, just don't do that". Like they don't have the skills to teach.</p> <p>I've had two cousins who have passed away from car crashes and I know it comes up- like talking with my family and stuff, it comes up in conversations every once in a while, and it's really a personal connection to it. It's really eye-opening of what can happen.</p> <p>In driving [parents] were a little more on the permissive side. To my older brother they were more harsh on him and letting him take the vehicle and stuff like that but that was because he had a history of not listening to them very well. But for me, I was a goody-goody.</p> <p>I was talking to my parents about [a friend's accident] and asked, "if I hit a deer, what would you do?" "Well it would depend on the situation and we would probably ask if you are okay and if you are okay, that would be the main thing. Like we don't care about the vehicle".</p> <p>E: Sounds like they didn't set a lot of rules about driving? P: No. E: What'd you think of that? P: It was good.</p> <p>[Mom] just lets me do my thing and she's not really like a backseat driver or anything. She just doesn't care.</p> <p>[Mom's] a nervous driver in the city so then she's an even more nervous driver trying to teach me to drive in the city. It just kind of amplifies her nervousness and I think that really is where my driving anxiety comes from.</p> <p>I've never really been punished for driving by parents.</p>	<ul style="list-style-type: none"> - [parents] don't have the skills to teach - I've had two cousins who have passed away from car crashes ... It's really eye-opening of what can happen - in driving, [parents] were a little more on the permissive side - I was talking to my parents about [a friend's accident] ... "we would probably ask if you are okay and if you are okay ... we don't care about the vehicle" - they didn't set a lot of rules about driving ... It was good - [mom] just lets me do my thing and she's not really like a backseat driver - [mom's] a nervous driver in the city so then she's an even more nervous driver trying to teach me to drive in the city - I've never really been punished for driving by parents <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - IM ← Family - CM Urban → Family → MM Driving - Family ↔ (-) Overt Verbal Communication - Family → (-) Monitoring <p><i>Fostered by:</i></p> <ul style="list-style-type: none"> - parents' trust, warmth, and lenient rules <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - perceived inadequacy of parents' driving skills and teaching abilities <p><i>Concluded level:</i> MODERATE. P7's parents have a moderate impact on her cultural model of driving acquisition. Particularly, P7's parenting style – with trust, warmth, and lenient rules – informs her private cultural model of rural driving. This model is also strongly relayed by the loss of family ("I've had two cousins who have passed away from car crashes ... It's really eye-opening of what can happen"). However, parents' influence is minimal when they attempt to teach P7 how to drive or offer advice because P7 perceives them to be poor drivers.</p>
Source – Friends and Peers	I think drinking culture itself is a big thing. Like if you're going to go to a party, the peer pressure to drink is off the charts like "come on just one".	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - the peer pressure to drink is off the charts - [drunk driving is] not as shamed as it should be within the peers and community

	<p>Yeah, it's not as shamed as it should be within the peers and community. Like no one's really telling them to stop and there is no repercussions if they don't get caught or if they don't hurt themselves or others.</p> <p>From knowing quite a few people who had DUIs in high school and stuff like that, there's no social repercussions; everyone just kind of gives them a pat on the back.</p> <p>I've also heard people at parties- my friend was sober, and she was driving a whole bunch of people home and one guy said "can I come with you" she said no that she had a full vehicle. "Okay I'm going to drive home drunk and if I get in a car crash and die that's your fault". He said that to her and she said, "uh, okay you can squeeze in".</p> <p>The conversations about driving, people don't take it as seriously as I think they should. I think that's a common theme that I see a lot. Even just the other day I was driving with a friend and one person- it was in Saskatoon- and they were changing lanes and they shoulder checked and my friend was like "you shoulder check? Like who does that?". Like "aren't you supposed to?" She was like "you're the only friend I know who shoulder checks, that's what mirrors for". Like I don't know, everybody kind of has their own style of driving and not all of those are what we're taught to do and what's the safest.</p> <p>M: So, hearing your friends say something like that, with the peer pressure, does that come into play at all in your driving? P: When I'm driving no.</p> <p>[When asked about the most influential mode] I think it's mostly my peer groups that have influenced my driving and the behaviours of other people in your peer group ... I'd say seeing your friends drive when you're in a vehicle, I feel like a that kind of gives you an example of how you should be driving and of what's necessary and what not necessary too, like shoulder checking.</p>	<ul style="list-style-type: none"> - no social repercussions [for drunk driving]; everyone just kind of gives them a pat on the back - one guy said "can I come with you" she said no that she had a full vehicle. "Okay I'm going to drive home drunk and if I get in a car crash and die that's your fault". He said that to her and she said, "uh, okay you can squeeze in". - my friend was like "you shoulder check? Like who does that?" - with the peer pressure, does that come into play at all in your driving? ... No - [when asked about the most influential mode] I think it's mostly my peer groups that have influenced my driving and the behaviours of other people in your peer group - seeing your friends drive when you're in a vehicle ... gives you an example of how you should be driving and of what's necessary and what's not necessary too, like shoulder checking <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Friends and Peers → MM Driving - IM ← Friends and Peers - IM → (-) Friends and Peers - Friends and Peers → Observation and Modeling - Friends and Peers → Monitoring <p><i>Hampered by:</i></p> <ul style="list-style-type: none"> - relatively safe individual model of driving <p><i>Other comments:</i></p> <ul style="list-style-type: none"> - cited as most influential source of transmission <p><i>Concluded level:</i> HIGH. Cited by P7 as the most influential source of cultural model transmission, friends and peers are instrumental in P7 establishing her private cultural models of driving. From observing and interacting with her friends and peers, P7 sees that drinking and drunk driving are both socially justifiable actions. P7 does however resist passively adopting her friends' and peers' driving practices via her individual model of driving.</p>
Source – Driving Authority	Like I got this license and I'm not prepared for everything that driving has.	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - I got this license and I'm not prepared for everything that driving has

	<p>Law enforcement knows that one is a lot more worse and dangerous for the safety of the individual and others than the other.</p> <p>I failed my drivers test twice for not [turning properly] so now I always make a point to do it. People are like "who does that?" Like, I do. Like "Why do you do that, nobody is coming?". Well I failed twice for doing it, so I better learn my lesson.</p> <p>I've never had an experience with the police while I've been driving.</p> <p>I've never really been punished for driving by ... police or anything like that but just seeing other people's punishments has affected me</p>	<ul style="list-style-type: none"> - law enforcement knows - I failed my drivers test twice for not [turning properly] ... Well I failed twice for doing it, so I better learn my lesson - I've never had an experience with the police while I've been driving - never really been punished for driving by ... police - just seeing other people's punishments has affected me <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Driving Authority → MM Driving - CM Rural → (-) Driving Authority → MM Driving - IM ← Driving Authority - CM Urban → Driving Authority → MM Driving - CM Urban → (-) Driving Authority → MM Driving - Driving Authority ↔ Punishment <p><i>Concluded level: MODERATE.</i> Cultural models of driving are conveyed to P7 from driving authorities – primarily law enforcement and driver's education instructors. Though she has not had personal experience with police officers, P7 has learned from seeing others' experience with police that reckless driving will not go unpunished. The same message is learned from driving instructors ("I failed twice for doing it, so I better learn my lesson").</p>
<p>Source – Other Drivers (community, strangers, etc.)</p>	<p>Experiencing parties and stuff like that where people go there, bring a vehicle full of people and the driver is drinking or something like that.</p> <p>Going to social events, many people want to go there and drink.</p> <p>Even parents have come and picked up a car full of people, way more than they should.</p> <p>I think drinking culture itself is a big thing. Like if you're going to go to a party, the peer pressure to drink is off the charts like "come on just one".</p> <p>There is one parent of a peers of mine who had a DUI, so they had that breathalyzer thing in the vehicle. So, they would drive with it, but they would have their kid there too so that every time it beeps (you need to blow in it to keep driving), they would just get their kid to blow in it</p>	<p><i>Key words:</i></p> <ul style="list-style-type: none"> - parties ... where people go there, bring a vehicle full of people and the driver is drinking - even parents have come and picked up a car full of people, way more than they should - the peer pressure to drink is off the charts - they would just get their kid to blow in [the breathalyzer] - the parent didn't want to quit drinking and driving - [drinking and driving is] not as shamed as it should be within the peers and community - no repercussions if they don't get caught or if they don't hurt themselves <p><i>Relationships:</i></p> <ul style="list-style-type: none"> - CM Rural → Other Drivers → MM Driving

	<p>because the parent didn't want to quit drinking and driving. Yeah, it's not as shamed as it should be within the peers and community. Like no one's really telling them to stop and there is no repercussions if they don't get caught or if they don't hurt themselves or others.</p>	<p><i>Concluded level:</i> MODERATE. Members of P7's rural community have quite effectively contributed to her understanding of the cultural model of rural driving. Seeing the widespread pressure for others her age to drink and drive drunk adds to this model being one of unsafe driving. Parents further add to this model by exemplifying that disobeying traffic laws is okay (though in some cases it is well-meaning, such as with surpassing maximum passenger capacity to prevent others' drunk driving). Overall though, these other drivers show that reckless driving will be followed with little to no negative social or legal repercussions.</p>
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Appendix G: Between-case Matrices

The various colours of text indicate shared themes.

Cultural Model of Rural Driving	
Terms Describing Presence of Cultural Model of Rural Driving	
P1	<ul style="list-style-type: none"> - exposed to a lot of reckless driving - driving pretty fast on highways - no cops ... low probability of getting pulled over - disregard or lack of knowledge for driving etiquette - people driving at ridiculous speeds ... at home - [drinking and driving] is taken as kind of a norm - going fast, tearing up the fields - drink and drive regularly - they treat it very casually and they do pressure others to do it - there's no cab service ... either you have a DD, or you're driving drunk - it's part of almost Saskatchewan culture. It's just something that I grew up around - driving is just a means for them to get to a party and have fun and get back ... you don't really think about the safety components - the drunk driving part doesn't really matter to them - they will stop [driving drunk] but I don't think it will have any lasting behavioural effects - take-it-for-granted drinking and driving doctrine back home - I'll be the first to say "who's DDing" and they'll just say like "nobody"
P2	<ul style="list-style-type: none"> - a lot of guy friends growing up ... drove kind of recklessly - less likely to stop at a stop sign in town - people ignore the speed limit a lot more in town - if there were more police in town ... but there often isn't - in town you do more grid road driving instead of city driving with more traffic
P3	<ul style="list-style-type: none"> - learned how to drive at a very young age ... a really common rural thing - when you're raised rurally, and you learned to drive at such a young age, [driving in the city] isn't so scary anymore - driving when I was 12 or 13, just like around the farm and to the field to pick up lunches or to move machinery, or just to pick up dad from wherever - no one out there to see how fast you're driving - there's like five kids in my graduating class who moved [to Saskatoon] ... They're like really cautious and like, scared - gravel roads and there's nothing to pay attention to other than wildlife - but you would rarely ever see [police officers] where I come from - [a friend] would drive on the gravel road so that she could drive faster and have a less chance of meeting a cop - when you live rurally you only ever hit wildlife at night ... made me super scared - out of nowhere three deer came ... they came out of nowhere ... "wow, I really don't want to hit something" - a small-town thing, like "drive while you're young so you aren't so anxious when the time comes to do all the tests and what not." - grateful that I learned how to drive at a young age ... always in a safe environment, and I always had someone with me

P4	<ul style="list-style-type: none"> - speeding wasn't really taboo ... allowed [by parents] to the point of still being safe - we've had radar detectors ... kind of encourages speeding in a way, but in my opinion that isn't true - friends in high school drink and drive, or backroad cruising - been super against [drinking and driving] for my whole life - drinking and driving is bad. They tell you that in school, but it pretty much should be common sense - there was a lot of students at our school who would [drink and drive] - everyone else found [drinking and driving] was okay - my brother is a few years older and he plays hockey with a bunch of the kids [who got in drunk driving accidents] - as I got older a lot of my friends were [drinking and driving] - in high school definitely was the most that I've seen [people drink and drive] - most people, at least from rural areas, they start drinking when they're a lot younger so ... Start driving a lot younger too - I learned to drive really young ... I think that's why a lot of rural kids learn to drive young is just maybe for safety reasons I guess ... not that it should be done in regular situations, but more just for emergencies I guess - I definitely learned how to drive a combine before I learned how to drive a car ... practical skills to have and ... I can work - in driver's education, they discuss drunk driving ... that probably affected the way that I think about it now for sure - going too fast on washboards is really bad; rural kids know that - started driving a dirt bike when I was four ... I started learning to drive cars when I was about 10 just on the farm ... my parents were never super nervous about doing things like that - a lot of parents never let their kids touch a dirt bike or things like that in their life - they always made sure I was wearing a helmet and things like that - when I did get my learners [dad] took me out to a lake to practice defensive driving on ice
P5	<ul style="list-style-type: none"> - everyone just slowly drives around because kids randomly jump around on the streets and stuff - people in small towns ... like to rip around ... Do tricks, they go on icy roads and speed on them, so they slide around on them and stuff. I don't do that stuff ... I get scared - my family is overly cautious driving, like they won't go a kilometre over the speed limit. And my brother especially, he's always hands on 10 and 2 ... I guess it's good that they are cautious but sometimes I think it's too much ... From watching them, it's kind of where I got a general idea of how to drive before I even did, which helped me I guess - I don't like the idea of [speeding and doing tricks] - ripping around on a grid road. And then he went into a slew and then we had to get someone to pick us up ... It's scary and I'm against it and I don't like it - I personally did not [learn to drive at a young age] ... Closest thing- like I sat on my mom's lap and drove around in a yard - I knew a lot of kids who drove farm vehicles around before they had their licenses, but we didn't farm so I had no reason - my friends had quads and I'd go over to their house and we would rip around on those - people [back home] complain about people driving slow and people having passed them - Sometimes I feel like I should speed up because I've heard other people [back home] say "oh it's so annoying when other people are driving that speed and you have to pass them all the time"
P6	<ul style="list-style-type: none"> - not many vehicles, not much traffic - not much to be careful about - it's okay if I'm a little bit over the speed limit because my friends do it - my one friend would drive really fast on [gravel roads]. That really scares me because we would like fishtail or swerve

	<ul style="list-style-type: none"> - ended up flying in the ditch ... after that I was like “I always need to be extra careful” - [parents] would always set like good examples ... always calm with them which has influenced me to try to be a good driver - [friends] aren’t even comfortable with driving in the city - we never got much experience [in driver’s ed] driving in Saskatoon ... So, lots of [students] I would say are timid drivers - completely different from being in the city - even in my exam, the parallel parking it really wasn’t anything like it is Saskatoon - that’s why kids really struggle when they get to the city: because they had it easy when they were in their small town - speeding ... a little looser [in rural area]
P7	<ul style="list-style-type: none"> - there aren’t buses or taxis; you have to drive - the driver is drinking - definitely driven home a lot more people than there are seatbelts for ... only other option would be for them driving back with an impaired driver - “officer, they would have driven home drunk” - law enforcement knows - even parents have come and picked up a car full of people, way more than they should - a lot of drinking and driving - the mindset is often like "oh well two or three drinks is not going to really matter" - drinking culture itself is a big thing - the peer pressure to drink is off the charts - they would just get their kid to blow in [the breathalyzer] - the parent didn't want to quit drinking and driving - [drinking and driving is] not as shamed as it should be within the peers and community - no repercussions if they don't get caught or if they don't hurt themselves - if someone gets a DUI ... there’s no social repercussions; everyone just kind of gives them a pat on the back - everyone I know in high school who got a DUI was a male - drinking culture too ... Is more geared towards males - more socially acceptable for women to [be designated drivers] ... But when men do that they're seen as pussies - girls were more expected to follow the rules - nobody really cares that the rules are being broken or that people's safety is at risk - "I've done it this way forever and no problems thus far" - Back to the story of my friend who hit the deer, I guess that was kind of a punishment for not paying attention
Terms Describing Absence of Cultural Model of Rural Driving	
P1	
P2	
P3	
P4	
P5	
P6	
P7	
Factors Cultural Model of Rural Driving Fostered by	

P1	<ul style="list-style-type: none"> - observing and hearing of others' unsafe driving behaviours, especially peers and friends - lack of legal repercussions for unsafe driving (and low police presence) - inadequate driver's education - perceived lack of safe driving options (e.g., taxi, DD) - party/drinking culture in rural Saskatchewan
P2	<ul style="list-style-type: none"> - childhood experiences - observing friends and peers, and other drivers - lack of punishment for reckless driving - lack of police officer presence
P3	<ul style="list-style-type: none"> - viewing or hearing about driving practices of family, friends, and other drivers - parents permitting driving at a young age - low police officer presence
P4	<ul style="list-style-type: none"> - parents' rules and guidelines - friends' actions and stories - (lack of) negative repercussions of unsafe driving (e.g., drunk driving accidents)
P5	<ul style="list-style-type: none"> - commonplace use of quads
P6	<ul style="list-style-type: none"> - seeing others drive and receive driving-related punishment in rural settings - perceived leniency of traffic laws
P7	<ul style="list-style-type: none"> - viewing and discussing unsafe driving practices of friends, peers, and other drivers in the community - lack of social or legal repercussions for unsafe driving practices - lack of safe driving alternative - party/drinking culture in rural Saskatchewan
Factors Cultural Model of Rural Driving Hampered by	
P1	
P2	
P3	
P4	
P5	<ul style="list-style-type: none"> - perceiving unsafe driving as scary - waiting until legal age to drive large vehicles (as opposed to most rural community members)
P6	<ul style="list-style-type: none"> - negative affect following rural driving (e.g., hitting the ditch)
P7	
Other Comments Regarding Rural Model of Urban Driving	
P1	
P2	<ul style="list-style-type: none"> - differences in driver's exam between rural and urban settings
P3	
P4	<ul style="list-style-type: none"> - Interesting that most people find drinking and driving to be okay, but P4 is very much against it. Perhaps resilience comes from P4's dad being an instructor, having positive experiences watching her parents drive, and/or driver's education
P5	
P6	

P7	<ul style="list-style-type: none"> - driving unsafely is sometimes done out of perceived necessity - drinking and driving continues in part because there are no perceived negative repercussions if nothing bad happens
Relationships between Cultural Model of Rural Driving and Other Constructs	
P1	<ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Rural → Overt Verbal Communication → MM Driving - CM Rural → (-) Punishment → MM Driving - CM Rural → Family → MM Driving - CM Rural → Friends → MM Driving - CM Rural → Driving Authority → MM Driving - CM Rural → (-) Driving Authority → MM Driving
P2	<ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Rural → (-) Punishment → MM Driving - CM Rural → Friends and Peers → MM Driving - CM Rural → (-) Driving Authority → MM Driving - CM Rural → Other Drivers → MM Driving
P3	<ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Rural → Overt Verbal Communication → MM Driving - CM Rural → Parenting Style → MM Driving - CM Rural → (-) Punishment → MM Driving - CM Rural → Family → MM Driving - CM Rural → Friends and Peers → MM Driving - CM Rural → (-) Driving Authority → MM Driving - CM Rural → Other Drivers → MM Driving
P4	<ul style="list-style-type: none"> - CM Rural → Observation and Modelling → MM Driving - CM Rural → Overt Verbal Communication → MM Driving - CM Rural → Parenting Style → MM Driving - CM Rural → (-) Punishment → MM Driving - CM Rural → Monitoring → MM Driving - CM Rural → Family → MM Driving - CM Rural → Friends and Peers → MM Driving - CM Rural → (-) Driving Authority → MM Driving
P5	<ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Rural → Overt Verbal Communication → MM Driving - CM Rural → Parenting Style → MM Driving - CM Rural → Punishment → MM Driving - CM Rural → Family → MM Driving - CM Rural → Friends and Peers → MM Driving - CM Rural → Driving Authority → MM Driving - CM Rural → Other Drivers → MM Driving
P6	<ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving

	<ul style="list-style-type: none"> - CM Rural → Punishment → MM Driving - CM Rural → Family → MM Driving - CM Rural → Friends and Peers → MM Driving - CM Rural → Driving Authority → MM Driving - CM Rural → Other Drivers → MM Driving
P7	<ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Rural → Overt Verbal Communication → MM Driving - CM Rural → (-) Punishment → MM Driving - CM Rural → Monitoring → MM Driving - CM Rural → Friends and Peers → MM Driving - CM Rural → Driving Authority → MM Driving - CM Rural → (-) Driving Authority → MM Driving - CM Rural → Other Drivers → MM Driving
Individual Mental Model of Driving	
Terms Describing Presence of Individual Mental Model of Driving	
P1	<ul style="list-style-type: none"> - really cautious - big adjustment - having more than one lane ... and just being very aware of other cars around me - made some occasional adjustments - if I do transgress the rules that they set then I will feel that ... guilt, but it usually doesn't stop me - haven't been involved in any ... incidents - sometimes not stopping at a stop sign if it's 2 AM and we're in Melfort - my biggest motivator is kind of resisting that take-it-for-granted drinking and driving doctrine back home - sometimes I will, sometimes I won't, depending on how the roads are
P2	<ul style="list-style-type: none"> - been in a few car accidents - it just keeps happening and I'm not really sure why - I try to be more cautious and correct whatever may have caused the last incidents - I feel more safe driving in town because I don't like a lot of traffic - you have to be prepared for different things - rolled my car - got a driving without due care and attention ticket - didn't feel like I deserved it because it was on gravel - made me angry because I felt like it was an unfair ticket - I drive slower now on gravel because I'm terrified - when I drive with friends I feel better in my driving because I feel like if I don't see something, they will ... I feel safer that way - makes you more cautious because I don't drive like that
P3	<ul style="list-style-type: none"> - I'm kind of grateful for [learning to drive rurally] ... always felt really comfortable driving - I don't think that I'm a really bad driver or dangerous by any means - driving when I was 12 or 13, just like around the farm and to the field to pick up lunches or to move machinery, or just to pick up dad from wherever

	<ul style="list-style-type: none"> - if I hadn't learned how to drive at a young age, taking driver training in high school would've been really scary, and I would've completely known nothing - more cautious out here [in Saskatoon] because you're paying attention to pedestrians ... I do drive way more cautiously - it's snowed ... I definitely like, leave extra time for people who don't drive as cautiously as I do - I really like it when my mom is like a Nazi driver ... two hands ... really prestigious; shoulder checks ... I've kind of let onto that now that I live in the city. I ... do a lot of that - one friend who drove a big truck and she was always flying ... I think that made me really watch for other people - on edge when I drive at night ... scared of hitting something - [hitting wildlife is] not so much of a worry driving in the city ... Now I just have to watch for other people ... Because it seems like everyone is getting hit lately - I'm extremely grateful that I learned how to drive at a young age ... was always in a safe environment, and I always had someone with me ... has definitely helped me in the long run, because I got that experience while I was younger - learned some really good skills [driving at a young age] ... I've learned all that stuff in a realistic thing rather than reading it - backed into someone ... had to pay for it - I've never been pulled over - I don't like parallel parking anymore. I never did to begin with. I'm gonna avoid that at all costs now - never had to file a claim like that before ... super daunting. I personally would not like to do that ever again - near misses- well, hitting a deer, that has happened a few times - was gonna change lanes, and this person ... They were so far away ... and then they were there again ... More cautious [driving now]. Super scary when that happens - pretty cautious in the city ... but now that I've actually lived here, it's subsided a little bit and feels more normal - when I have someone with me everything goes wrong ... miss a light or you stop too soon for a light - learning [to drive] at a young age ... Definitely [parents] being more lenient and open to early exposure was really nice, and I think has really benefited me in the long run
P4	<ul style="list-style-type: none"> - most of my driving experience is from highway driving - I'm not like a nervous driver ... more just like "get out of my way" - it's not about getting the drive through faster or anything. It's just being able to realize, "oh there's not that much traffic on the road" - not afraid to pass people who are going slower than me - learned how to drive a combine before I learned how to drive a car ... I think these are practical skills to have and then it's also just helpful to have - growing up I rode a lot of quads and dirt bikes and things like that. So, I kind of had to learn about speeds and how to turn - started driving a dirt bike when I was four ... I started learning to drive cars when I was about 10 just on the farm, with sitting on someone's lap - just let me kind of run around on a dirt bike - I don't find myself a dangerous driver obviously, but there are situations where- it's not like I've driven under the speed limit every time I'm in a vehicle - I've gotten speed camera tickets. Or at least I thought it did ... I was terrified that I was going to get a ticket - had a couple people be like "oh speed up, let's hurry up and just get to the city already" ... I don't usually listen to them ... Yeah, I don't feel very pressured - I'm kind of a bossy person so if somebody is telling me to speed up I'll tell them no
P5	<ul style="list-style-type: none"> - with someone, I'm a lot more cautious and I pay a lot more attention - by myself I just kinda drive and don't think that much of it - everyone else is driving fast, so I try and match the speed

	<ul style="list-style-type: none"> - friends had quads and I'd go over to their house and we would rip around on those a lot ... We would just stay in our yard or own field ... Just across a grid road but that's about it - hit the ditch last year due to ice so I'm overly cautious if there's any ice on the road now - it was pretty icy and people seemed to be driving fine, but I was going 100 because I didn't wanna mess with this. And a ton of other people were passing me - sometimes I feel like I should speed up because I've heard other people [back home] say "oh it's so annoying when other people are driving that speed and you have to pass them all the time" - my mom doesn't think I should speed but I don't drive with her, so she can't stop me - I'm a little blind though, hence the glasses ... I just try to not drive at night. I'm not very good at it. - I've had some experience driving in the city before I moved here so it wasn't an issue - got in a small accident and like the car was fine and stuff, but [dad] was mad. So, I was more cautious after that. - ended up doing a 180 into a ditch and when the cop saw it he thought it was reckless driving ... could have gotten charged for that but the tow truck guy convinced the cop not to ... I'm overly cautious driving on ice now. - I probably drive slower than I need to. I also make sure I have good tires now. Because before we didn't because my dad was like, "oh I don't wanna spend the money on it" - if something happened and it was just me in the vehicle, of course I'd be upset ... but if I had someone else in the vehicle and something happened to them I'd feel so bad - practiced driving with [parents]. My mom taught me how to drive on the highway on curbs because I couldn't do that. It freaked me out especially if there were other vehicles and she told me to look at whichever line was beside you, and that helped a lot. So, I guess that impacted me ... It was more my driver instructor trainer person I guess that taught me
P6	<ul style="list-style-type: none"> - shy, timid, and cautious definitely - when I first moved to the city ... it definitely opened up my eyes - in the city I feel like you learn how to do everything - even in my exam, the parallel parking it really wasn't anything like it is Saskatoon - never gotten a speeding ticket or anything - never been stopped or warned or anything - just going to keep doing what I'm doing. It must be good - when I do drive with other people I definitely drive more cautious just knowing that their lives are in my hands
P7	<ul style="list-style-type: none"> - driver's ed, it was in my hometown and we just drove around our town - the biggest city I ever drove in was Melfort and I don't think that prepared me at all for driving in bigger cities, especially in Saskatoon - I can highway drive perfectly and I don't get nervous at all - I tend to stick to the rules ... except when it comes to a situation where it's kind of "okay of these two situations, putting an extra person in my car or having them drive home drunk" - with the peer pressure, does that come into play at all in your driving? ... No - [driving in the city] kind of amplifies [mom's] nervousness and I think that really is where my driving anxiety comes from
Terms Describing Absence of Individual Mental Model of Driving	
P1	
P2	
P3	
P4	

P5	- I personally did not [learn to drive at a young age] ... Closest thing- like I sat on my mom's lap and drove around in a yard
P6	- [beginning city driving is] when I fully learned to drive because where I grew up there's no one really, not many vehicles, not much traffic, not much to be careful about - until you get [to Saskatoon] then you actually learn - never gotten a speeding ticket or anything - never been stopped or warned or anything
P7	- driver's ed, it was in my hometown and we just drove around our town - the biggest city I ever drove in was Melfort and I don't think that prepared me at all for driving in bigger cities, especially in Saskatoon - barely even experienced red lights - got this license and I'm not prepared - you're just supposed to learn everything from your parents - if your parents aren't very good drivers then you don't really have anyone else to ask questions - [parents] don't have the skills to teach - I don't like driving - I don't think that I have enough experience
Factors Individual Mental Model of Driving Fostered by	
P1	- change of residence and regular driving setting (rural to urban) - lack of negative repercussions for personal driving practices - personal motivation to resist unsafe cultural model of rural driving
P2	- involvement in driving incidents - receiving driving infractions - driving experiences with friends
P3	- seeing family, friends, and other drivers on the road - parents allowing P7 to drive at young age - presence of friends as passengers while driving - experiencing incident and insurance claim process
P4	- learning to drive from a young age - parents' support and guidance - fear of legal repercussions for unsafe driving
P5	- involvement in driving incidents - reprimand from father, and nearly from police, following incidents - seeing and hearing about others driving
P6	- moving from rural to urban setting - care for passengers' safety
P7	
Factors Individual Mental Model of Driving Hampered by	
P1	- guilt of disobeying parents - potentially, pressure to adopt peers' unsafe driving practices
P2	

P3	
P4	
P5	<ul style="list-style-type: none"> - driving alone, when she is less aware (goes on “auto-pilot”) - delayed onset of driving experience, compared to others in the community
P6	<ul style="list-style-type: none"> - simplicity of rural driving (e.g., lack of traffic or pedestrians)
P7	<ul style="list-style-type: none"> - inadequate driver’s training; limited experience needed to build strong IM
Other Comments Regarding Individual Mental Model of Driving	
P1	<ul style="list-style-type: none"> - commits minor transgressions (e.g., not stopping at stop sign), but overall acts safely
P2	
P3	<ul style="list-style-type: none"> - P3 is a comfortable/confident driver - resisted passively adopting friend’s reckless driving
P4	<ul style="list-style-type: none"> - P4 is a confident driver
P5	<ul style="list-style-type: none"> - P5 has been in several incidents or near-misses, perhaps a large part of her IM resisting CM Rural
P6	<ul style="list-style-type: none"> - shy/cautious person (and driver)
P7	<ul style="list-style-type: none"> - P7 does not like to drive - P7 is a nervous driver because of a perceived lack of experience
Relationships between Individual Mental Model of Driving and Other Constructs	
P1	<ul style="list-style-type: none"> - IM → (-) Observation and Modeling - IM → (-) Overt Verbal Communication - IM → (-) Parenting Style - IM → (-) Punishment - IM → (-) Monitoring - IM → (-) Family - IM → (-) Friends - IM → (-) Other Drivers
P2	<ul style="list-style-type: none"> - IM → (-) Observation and Modeling - IM → (-) Punishment - IM ← Punishment - IM ← Monitoring - IM ← Friends and Peers - IM → (-) Driving Authority - IM ← Driving Authority
P3	<ul style="list-style-type: none"> - IM ← Observation and Modeling - IM → (-) Observation and Modeling - IM ← Parenting Style - IM ← Punishment - IM ← Monitoring - IM → (-) Monitoring - IM ← Family

	<ul style="list-style-type: none"> - IM ← Driving Authority - IM ← Other Drivers
P4	<ul style="list-style-type: none"> - IM → (-) Overt Verbal Communication - IM ← Parenting Style - IM ← Punishment - IM → (-) Monitoring - IM ← Parents - IM → (-) Friends and Peers - IM ← Driving Authority
P5	<ul style="list-style-type: none"> - IM ← Observation and Modeling - IM → (-) Observation and Modeling - IM ← Overt Verbal Communication - IM ← Parenting Style - IM ← Punishment - IM ← Monitoring - IM ← Family - IM → (-) Family - IM ← Friends and Peers - IM ← Driving Authority - IM ← Other Drivers
P6	<ul style="list-style-type: none"> - IM ← (-) Punishment - IM ← Monitoring - IM ← (-) Driving Authority - IM ← Family - IM → (-) Friends and Peers - IM ← Other Drivers
P7	<ul style="list-style-type: none"> - IM ← Overt Verbal Communication - IM → (-) Overt Verbal Communication - IM → (-) Punishment - IM ← Monitoring - IM ← Family - IM ← Friends and Peers - IM → (-) Friends and Peers - IM ← Driving Authority
Cultural Model of Urban Driving	
Terms Describing Presence of Cultural Model of Urban Driving	
P1	<ul style="list-style-type: none"> - easier to drive - better sense of the road laws - the rules are clear and people tend to follow them more

	<ul style="list-style-type: none"> - don't have to worry as much about people driving at ridiculous speeds or cutting me off - [drinking and driving] is taken as kind of a norm - they drive more cautiously ... more police on the highway and in the city to catch them - they won't use their cell phones and won't drive recklessly - "calm down your driving, we're in the city" - the rules actually apply in the city
P2	<ul style="list-style-type: none"> - in the city there are more police, traffic, and cameras - people would run the yellow and five more people would run the red - no one really stops [at the U of S parking lot intersection] - people just honk at each other if you don't go right away - you don't go fast enough, people are going to honk at you - more traffic
P3	<ul style="list-style-type: none"> - daunting to drive [in the city] because you're in the city and there's so much to pay attention to and it's scary - paying more attention to the speed limits ... in the city because there's more probation out here - more cautious out here [in Saskatoon] because you're paying attention to pedestrians ... And other people are driving - leave extra time for people who don't drive as cautiously as I do - people in the city ... are way more aggressive than people who were driving around the small town where I grew up - making lights ... aggressive driving up here [in Saskatoon]; in terms of honking and riding on people's bumpers - not like everyone who lives in the city is aggressive and less cautious. There is just a lot of aggression - watch for lights and people coming up behind you and people coming up in other lanes - police officers everywhere in the city - more to pay attention to and there's more enforcement - watch for other people [in the city] ... Because it seems like everyone is getting hit lately - people are actually getting hit - the photo radar speed patrolling thing, just knowing all that stuff is out there definitely ... keeps me in line
P4	<ul style="list-style-type: none"> - Saskatoon doesn't have much traffic ... but it's still a lot more than I grew up with - I just get really mad here - people just cut me off and it's like "oh my goodness" - a lot more vehicles on the road - people still [drink and drive]- like friends I met in university do it too - in high school definitely was the most that I've seen [people drink and drive]. I've had a few situations in university
P5	<ul style="list-style-type: none"> - I drive faster here [in the city]. Just to keep up with traffic - [in the city] ... everyone else is driving fast, so I try and match the speed - It's so fast-paced and so many cars
P6	<ul style="list-style-type: none"> - [beginning city driving is] when I fully learned to drive because where I grew up there's no one really, not many vehicles, not much traffic, not much to be careful about - I'm way more aware [in the city] and there's more rules too I would say ... because there's traffic lights and stuff and there's not at the farm - everyone thinks they know how to drive like 100% and they're very confident with their driving
P7	<ul style="list-style-type: none"> - [mom's] an even more nervous driver ... in the city ... and I think that really is where my driving anxiety comes from
<p>Terms Describing Absence of Cultural Model of Urban Driving</p>	

P1	
P2	
P3	- five kids in my graduating class who moved [to Saskatoon], ... really cautious and like, scared almost in a way
P4	
P5	- people I've talked to who haven't lived [in the city] all their lives and moved here too, they are like scared to drive in the city because it's so fast-paced
P6	- when I first moved to the city ... it definitely opened up my eyes
P7	
Factors Cultural Model of Urban Driving Fostered by	
P1	- clarity and understanding of road laws - police vigilance and presence - others' behaviours and remarks while city driving
P2	- watching the actions other city drivers - driving on campus
P3	- observing and hearing of driver's behaviours - news stories - police officer presence
P4	- others' driving behaviours (mostly unsafe)
P5	- high number of drivers to observe and learn from
P6	- interaction with other drivers and environmental factors on urban roads - police officer presence
P7	
Factors Cultural Model of Urban Driving Hampered by	
P1	
P2	- potentially, living in a small town 30 minutes outside of Saskatoon (though she regularly commutes to the University of Saskatchewan)
P3	
P4	- potentially, little urban driving experience (given that P4 was raised rurally and is 18 years old, she may have only recently moved to the city)
P5	- potentially, little urban driving experience (given that P4 was raised rurally and is 18 years old, she may have only recently moved to the city)
P6	- potentially, little urban driving experience (given that P4 was raised rurally and is 18 years old, she may have only recently moved to the city)
P7	- inexperience driving in the city - aversion to driving in the city
Other Comments Regarding Cultural Model of Urban Driving	
P1	
P2	
P3	
P4	- city driving is more frustrating for P4 than rural driving
P5	
P6	
P7	- little information perhaps due to P7 disliking and avoiding driving in the city

Relationships between Cultural Model of Urban Driving and Other Constructs	
P1	<ul style="list-style-type: none"> - CM Urban → Observation and Modeling → MM Driving - CM Urban → Overt Verbal Communication → MM Driving - CM Urban → Punishment → MM Driving - CM Urban → Friends → MM Driving - CM Urban → Driving Authority → MM Driving - CM Urban → Other Drivers → MM Driving
P2	<ul style="list-style-type: none"> - CM Urban → Observation and Modeling → MM Driving - CM Urban → Other Drivers → MM Driving
P3	<ul style="list-style-type: none"> - CM Urban → Observation and Modeling → MM Driving - CM Urban → Overt Verbal Communication → MM Driving - CM Urban → Parenting Style → MM Driving - CM Urban → Punishment → MM Driving - CM Urban → Family → MM Driving - CM Urban → Driving Authority → MM Driving - CM Urban → Other Drivers → MM Driving
P4	<ul style="list-style-type: none"> - CM Urban → Observation and Modelling → MM Driving - CM Urban → Other Drivers → MM Driving
P5	<ul style="list-style-type: none"> - CM Urban → Observation and Modeling → MM Driving - CM Urban → Other Drivers → MM Driving
P6	<ul style="list-style-type: none"> - CM Urban → Observation and Modeling → MM Driving - CM Urban → Punishment → MM Driving - CM Urban → Driving Authority → MM Driving - CM Urban → Other Drivers → MM Driving
P7	<ul style="list-style-type: none"> - CM Urban → Observation and Modeling → MM Driving
Observation and Modeling	
Terms Indicating Observation and Modeling Effectively Transmitting CMs	
P1	<ul style="list-style-type: none"> - exposed to a lot of reckless driving when I was younger - had already seen people recklessly driving - going fast, tearing up the fields - seen it result in getting pulled over and giving tickets issued, or even accidents - people just did and it was seen as okay - I think that's my biggest motivator is kind of resisting that take-it-for-granted drinking and driving doctrine back home - definitely the most important one for me
P2	<ul style="list-style-type: none"> - had a lot of guy friends growing up that drove kind of recklessly - impatient people ... when they drive around you - you don't go fast enough, people are going to honk at you - some people have some road rage and impatience - some people I drive with are like really calm and confident in their abilities ... makes me feel more safe as a passenger

P3	<ul style="list-style-type: none"> - worried about how other people drive rather than myself - leave extra time for people who don't drive as cautiously as I do - my sister ... She's very aggressive - knowing that other people are [aggressive drivers], makes me change my driving so that I'm not the one getting into an accident - I really like it when my mom is like a Nazi driver ... two hands ... really prestigious; shoulder checks ... I've kind of let onto that now that I live in the city. I ... do a lot of that - [sister's] more laid back ... doesn't really shoulder check ... less cautious [than mother] - one friend who drove a big truck and she was always flying ... I think that made me really watch for other people
P4	<ul style="list-style-type: none"> - not used to driving with that many people around - I just get really mad ... some people just cut me off - I've seen my parents do a lot of that driving ... we did the five-hour drive probably about once a month ... speeding wasn't really taboo ... It was allowed to the point of still being safe - my dad ... so into defensive driving like in winter conditions - seeing other drivers get angry on the road ... I'll try to either move away from that situation or just kind of get angry also - been flipped off while driving and oh my goodness it just makes you angry - my brother has [a radar detector] ... So, he does speed. Like, he doesn't want to get a ticket, but it doesn't make him speed dangerously - people still [drink and drive] - nobody ever got in accidents [at school from drinking and driving], but it was definitely obviously wrong ... Made me want to do less. Even though everyone else found it was okay. - in high school definitely was the most that I've seen [people drink and drive]. I've had a few situations in university
P5	<ul style="list-style-type: none"> - drive cautiously because my parents drove really cautious but not as cautious because ... my friends drive and they're a lot more reckless - on highways I drive probably around 110 because that's what everyone else does ... If I drive 100, I'm getting passed a lot - people in small towns ... like to rip around ... Do tricks, they go on icy roads and speed on them, so they slide around on them and stuff. I don't do that stuff ... I get scared - my family is overly cautious driving, like they won't go a kilometre over the speed limit. And my brother especially, he's always hands on 10 and 2 ... I guess it's good that they are cautious but sometimes I think it's too much ... From watching them, it's kind of where I got a general idea of how to drive before I even did, which helped me I guess - ripping around on a grid road. And then he went into a slew and then we had to get someone to pick us up ... It's scary and I'm against it and I don't like it - a lot of people don't care about road conditions and they'll drive like normal - she slammed on the brakes and I was like "why did you stop?" and she was like "well there was a moose there". I actually didn't see it. I'm a little blind though, hence the glasses ... Like good thing I wasn't driving ... I just try to not drive at night. I'm not very good at it
P6	<ul style="list-style-type: none"> - [friends] were more risky drivers so then I think that influenced me a little bit because I'd feel like "oh it's okay if I'm a little bit over the speed limit because my friends do it all the time" - [friends] drive pretty dangerously at times. Just sitting there and being in the vehicle like, I just don't want to be like that because it scares me - my one friend would drive really fast ... That really scares me because we would like fishtail or swerve ... We kind of ended up flying in the ditch and it was really steep - [parents] would always set like good examples. They would never go over the speed or do anything to scare me ... always calm with them which has influenced me to try to be a good driver and be careful
P7	<ul style="list-style-type: none"> - parties ... where people go there, bring a vehicle full of people and the driver is drinking

	<ul style="list-style-type: none"> - even parents have come and picked up a car full of people, way more than they should - a lot of drinking and driving ... which is horrible ... it's crazy - there's no social repercussions [for drinking and driving]; everyone just kind of gives them a pat on the back - everyone I know in high school who got a DUI was a male - drinking culture too ... Is more geared towards males - more socially acceptable for women to [be designated drivers] ... But when men do that they're seen as pussies - girls were more expected to follow the rules - every person who I've heard who has like a crash or something, they always blame the situation - [when asked about the most influential mode] I think it's mostly my peer groups that have influenced my driving and the behaviours of other people in your peer group - seeing your friends drive when you're in a vehicle ... gives you an example of how you should be driving and of what's necessary and what's not necessary too, like shoulder checking
Terms Indicating Observation and Modeling Not Effectively Transmitting CMs	
P1	<ul style="list-style-type: none"> - my mother will not use the cruise control - I'll do it anyway and I just have a bit of a twinge of guilt - just watching it happen kind of gives me a pang of "don't do that" - I look at it as stupid or don't feel like driving fast - examples of what to do and what not to do
P2	<ul style="list-style-type: none"> - makes you more cautious because I don't drive like that - an example of what not to do while driving - exemplifying what not to do versus what to do
P3	<ul style="list-style-type: none"> - knowing that other people are [aggressive drivers], makes me change my driving so that I'm not the one getting into an accident - one friend who drove a big truck and she was always flying ... I think that made me really watch for other people
P4	<ul style="list-style-type: none"> - seeing other drivers get angry on the road ... I'll try to either move away from that situation - nobody ever got in accidents [at school from drinking and driving], but it was definitely obviously wrong ... Made me want to do less
P5	<ul style="list-style-type: none"> - people in small towns ... like to rip around ... Do tricks, they go on icy roads and speed on them, so they slide around on them and stuff. I don't do that stuff ... I get scared - I don't like the idea of [speeding and doing tricks] - ripping around on a grid road. And then he went into a slew and then we had to get someone to pick us up ... It's scary and I'm against it and I don't like it
P6	<ul style="list-style-type: none"> - [friends] drive pretty dangerously at times. Just sitting there and being in the vehicle like, I just don't want to be like that because it scares me - I've been with my friends when they've almost been in accidents ... I'm going to drive more cautiously myself because I don't want to put other people in danger
P7	<ul style="list-style-type: none"> - watched like one five-minute video ... was not sufficient - just seeing other people's punishments has affected me
Factors Observation and Modeling Fostered by	
P1	
P2	
P3	- driving behaviours of close others, such as sister, mother and friends – as well as other drivers

P4	- actions of parents, brother, and other drivers (for some behaviours)
P5	
P6	- strong emotion (e.g., calmness or danger)
P7	- friends as the object of observation
Factors Observation and Modeling Hampered by	
P1	- rural childhood experiences - <i>perceiving others' driving behaviours to be bad examples</i>
P2	- <i>perceiving others' driving behaviours to be bad examples</i>
P3	- <i>perceiving others' driving behaviours to be bad examples</i>
P4	- <i>finding others' behaviours to be too unsafe</i> - <i>others' drinking and driving</i>
P5	- negative affect induced by observing certain driving behaviours (e.g., stunting on icy roads)
P6	- <i>perceiving others' driving behaviours to be bad examples</i>
P7	- <i>perceiving others' driving behaviours to be bad examples</i> - impersonal observation (e.g., watching an instructional video)
Other Comments Regarding Observation and Modeling	
P1	- most important mode of transmission
P2	- <i>for P2, reckless drivers exemplify what not to do</i>
P3	- <i>resisted passively adopting friend's reckless driving; observed what not to do</i>
P4	
P5	- inconsistent behaviours observed by P5 (safe versus unsafe driving) - friends unsafe drivers; parents safe
P6	- friends unsafe drivers; parents safe
P7	- cited as most influential mode of transmission
Relationships between Observation and Modeling and Other Constructs	
P1	- CM Rural → Observation and Modeling → MM Driving - IM ← Observation and Modeling - IM → (-) Observation and Modeling - CM Urban → Observation and Modeling → MM Driving
P2	- CM Rural → Observation and Modeling → MM Driving - IM ← Observation and Modeling - IM → (-) Observation and Modeling - CM Urban → Observation and Modeling → MM Driving
P3	- CM Rural → Observation and Modeling → MM Driving - IM ← Observation and Modeling - IM → (-) Observation and Modeling - CM Urban → Observation and Modeling → MM Driving
P4	- CM Rural → Observation and Modeling → MM Driving

	<ul style="list-style-type: none"> - CM Urban → Observation and Modeling → MM Driving - Observation and Modeling ← Family - Observation and Modeling ← Other Drivers
P5	<ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - IM ← Observation and Modeling - IM → (-) Observation and Modeling - CM Urban → Observation and Modeling → MM Driving
P6	<ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Urban → Observation and Modeling → MM Driving
P7	<ul style="list-style-type: none"> - CM Rural → Observation and Modeling → MM Driving - CM Urban → Observation and Modeling → MM Driving - Observation and Modeling ← Friends and Peers
Overt Verbal Communication	
Terms Indicating Overt Verbal Communication Effectively Transmitting CMs	
P1	<ul style="list-style-type: none"> - it started with driver's education ... tell you to drive defensively - I'll be the first to say "who's DDing" and they'll just say like "nobody" - they kind of reinforce that on one another - If I'm serious enough [when telling friends to stop driving recklessly], they will stop. But I don't think it will have any lasting behavioural effects
P2	<ul style="list-style-type: none"> - does impact my driving - my driving instructor said that one in three people get in a car crash every- ... made me not want to fall into that statistic - sometimes I complain about other drivers to [parents] ... they're like, yeah that's how it goes and what not, don't do that - my dad told me to drive slower and that I should not go over 80, ever - they didn't have much to say about [the accident] ... kind of relieving
P3	<ul style="list-style-type: none"> - [friend] said she would ... drive on the gravel road so that she could drive faster and have a less chance of meeting a cop ... influenced me in a way where like, wow, people actually do that - so many near-miss stories ... super scary - don't like driving at night because other people have had near misses or basically hit other wildlife - out of nowhere three deer came ... they came out of nowhere ... "wow, I really don't want to hit something" - on the news ... five pedestrians in the last five days have been hit
P4	<ul style="list-style-type: none"> - dad ... taught me how to be do defensive driving - [Dad] knows a little bit too much I'd say ... affected the way that I drive now - took driver training through SGI or ... high school ... So that also helps to learn - a thing that my parents stressed ... was the speed limit is the speed limit but also if you are speeding to make sure- well ... you don't have to obey the rules at all cost - friends in high school drink and drive, or backroad cruising - drinking and driving is bad. They tell you that in school, but it pretty much should be common sense. That's one thing that has affected me as a driver - in driver's education, they discuss drunk driving ... that probably affected the way that I think about it now for sure - those conversations were just going on in the background, but I was picking a lot of it up - dad talking about like, "oh backing off of other vehicles" ... I consciously think about that and back off of other vehicles

	<ul style="list-style-type: none"> - my dad had the same conversations with me later, but I picked it up a lot up earlier with him talking to my brother - [when asked about the most influential mode] probably just the way that I was taught to drive ...being rural and also my dad being a driver trainer
P5	<ul style="list-style-type: none"> - people [back home] complain about people driving slow and people having passed them - feel like I should speed up because I've heard other people say "oh it's so annoying when other people are driving that speed and you have to pass them all the time" - parents think that I shouldn't speed, especially if the road conditions aren't too good - [mom] told me to look at whichever line was beside you, and that helped a lot. So, I guess that impacted me... But other than that, they didn't really say anything unless I asked - it was more my driver instructor trainer person I guess that taught me more about [driving]
P6	<ul style="list-style-type: none"> - [siblings] would give me heck if they thought I was driving too fast or anything - what [siblings are] saying actually makes a difference when ... driving - a couple of guys in my class ... rolled their vehicle ... because of that sometimes I'm really cautious when I'm tired - in drivers ed there's still a few things that really stick out to me ... shoulder checking ... I still can hear her- my drivers ed instructor – in my head sometimes - [when asked about most influential mode] I feel like it would just be my parents because they're the ones who basically taught me how to drive. So, I listen to them the most
P7	<ul style="list-style-type: none"> - peer pressure ... "come on just one" - "Okay I'm going to drive home drunk and if I get in a car crash and die that's your fault" ... "Uh, okay you can squeeze in" - talking with my family and stuff, [cousins who passed away in traffic incidents] comes up in conversations ... It's really eye-opening of what can happen - "you're the only friend I know who shoulder checks, that's what mirrors for" - discussions around car accidents always putting blame on another person which makes me very nervous when I'm driving - "we would probably ask if you are okay and if you are okay ... we don't care about the vehicle"
Terms Indicating Overt Verbal Communication Not Effectively Transmitting CMs	
P1	<ul style="list-style-type: none"> - there's nothing that I can say that would change [a friend's] mind - it does affect how I think about it, but I don't think it will affect my decision - all these initiatives to prevent drunk driving ... they don't override the whole ritual that people seem to have adopted - If I'm serious enough [when telling friends to stop driving recklessly], they will stop. But I don't think it will have any lasting behavioural effects
P2	- [regarding hearing stories about drivers] I don't think so
P3	
P4	- discouraging to try and discourage [peers from drinking and driving] ... because they always get mad
P5	
P6	
P7	<ul style="list-style-type: none"> - if your parents aren't very good drivers then you don't really have anyone else to ask questions - [parents] would often just tell me "oh don't do that" ... Like they don't have the skills to teach - just lectures from our teacher ... was not sufficient - with the peer pressure, does that come into play at all in your driving? ... No - people are like "who does that?" Like, I do ... I failed twice for doing it, so I better learn my lesson

Factors Overt Verbal Communication Fostered by	
P1	- formal driver's education - peer pressure
P2	- statistical facts
P3	
P4	
P5	
P6	- discussion with family members
P7	- emotionally-charged or high-stakes conversations
Factors Overt Verbal Communication Hampered by	
P1	- friends ignoring verbal advice on driving - "ritual" of drinking and driving (engrained cultural norm)
P2	
P3	
P4	- ineffectiveness of asking friends to not drink and drive
P5	
P6	
P7	- parents being inadequate teachers - impersonal conversations
Other Comments Regarding Overt Verbal Communication	
P1	- can create short-term behavioural change, but not long-term
P2	
P3	
P4	- cited by participant as one of three most important modes
P5	- mixed messages to P5 (safe versus unsafe driving)
P6	- one of two most influential modes - parents are highly effective with this mode
P7	- conversations with others shows that they blame environmental factors or other drivers for accidents, which makes P7 nervous about driving
Relationships between Overt Verbal Communication and Other Constructs	
P1	- CM Rural → Overt Verbal Communication → MM Driving - IM ← Overt Verbal Communication - IM → (-) Overt Verbal Communication - CM Urban → Overt Verbal Communication → MM Driving - Overt Verbal Communication ← Friends and Peers - Overt Verbal Communication ← Driving Authority
P2	
P3	- CM Rural → Overt Verbal Communication → MM Driving - CM Urban → Overt Verbal Communication → MM Driving

P4	<ul style="list-style-type: none"> - CM Rural → Overt Verbal Communication → MM Driving - IM → (-) Overt Verbal Communication - Overt Verbal Communication ↔ Family - Overt Verbal Communication ← Driving Authority
P5	<ul style="list-style-type: none"> - CM Rural → Overt Verbal Communication → MM Driving - IM ← Overt Verbal Communication
P6	<ul style="list-style-type: none"> - Overt Verbal Communication ↔ Family
P7	<ul style="list-style-type: none"> - CM Rural → Overt Verbal Communication → MM Driving - IM ← Overt Verbal Communication - IM → (-) Overt Verbal Communication - Overt Verbal Communication ↔ (-) Family
Parenting Style	
Terms Indicating Parenting Style Effectively Transmitting CMs	
P1	<ul style="list-style-type: none"> - enforce some things as absolutes ... others they just leave me to decide - really against drunk driving ... cell phones and speeding - very strict about not turning cruise control on
P2	<ul style="list-style-type: none"> - a bit controlling - no [rules]. Just to not crash it I guess - nice that they trust me because it makes me feel more confident in my abilities - I feel like they wouldn't trust me at all [if they set lots of rules] and feel like I wasn't a good driver - they didn't throw any sort of punishment on top of [accident] ... kind of relieving - my parents' expectations [has most impact on driving practices]
P3	<ul style="list-style-type: none"> - driving when I was 12 or 13, just like around the farm and to the field to pick up lunches or to move machinery, or just to pick up dad from wherever - extremely grateful - helped me in the long run, because I got that experience - when I first started driving, my parents were ... Controlling - my mom, she was always the one that was grabbing the handle in the car and being like "oh my gosh, slow down!" - my dad, he was more laid back ... I always had this sense that I was doing fine when I was driving with him - [parents] trust me like way more now than initially - it didn't matter where I took their vehicle, I just had to be home - I always respected [curfews] - it was good to have those rules set out when I was that young - [when asked which mode is most influential] parenting style definitely - [parents] being more lenient and open to early exposure was really nice, and I think has really benefited me in the long run
P4	<ul style="list-style-type: none"> - started driving a dirt bike when I was four ... I started learning to drive cars when I was about 10 just on the farm, with sitting on someone's lap ... parents were never super nervous about doing things like that - [parents] made sure that I did get a vehicle that had a really high safety rating - my parents would've developed more rules if I had been a more reckless driver ... I guess they didn't really have a reason to have them - There was a lot of rules around on my car, they just weren't my parents' rules. They were the school's

	- [when asked about the most influential mode] probably just the way that I was taught to drive ... like where I picked that up ... Yeah being rural and also my dad being a driver trainer. He used to be really on me about how I drive.
P5	- parents think that I shouldn't speed, especially if the road conditions aren't too good - [when asked about most influential mode] probably parents- like the punishments from parents. Because just like, when my dad would be mad at me at something that would happen, ... I just feel really bad about it and not want it to happen again - dad like when I moved in with him for the first year ... I could do anything, and he didn't ask questions, and then he got a girlfriend and he got extremely controlling and angry all the time about it ... Maybe [changing of controlling, permissive has impacted driving]. I drive a little more cautious
P6	- my upbringing from my parents – like telling me what I should do and shouldn't do – they kind of influenced me by that - when it comes to driving, especially when I was learning, in the vehicle [parents] always had stuff to say. Like, “oh you're turning your corners too fast” - [parents] constantly nagging me about things. I feel like they still do once in a while ... it is [a good thing] - [parents have] said some things to me so often, I'll be driving and still have their voice in my head like, “I should not turn my corners too fast” ... it's helped me - [when asked about most influential mode] I feel like it would just be my parents because they're the ones who basically taught me how to drive. So, I listen to them the most
P7	- somewhere in between [controlling and permissive] ... in general - in driving [parents] were a little more on the permissive side - [parents] let me have the vehicle whenever - when I had my learners license for six months and could only take that one person, I would tell them that I'm taking my three friends to the beach, like they wouldn't care - didn't set a lot of rules about driving ... it was good - I enjoyed the freedom - I didn't really have a curfew ... it was nice - I definitely knew that if I did one thing wrong ... then all of that would be gone, you know? - I held [parents' trust] in high regards because I knew that it can be gone - [mom] just lets me do my thing and she's not really like a backseat driver
Terms Indicating Parenting Style Not Effectively Transmitting CMs	
P1	- enforce some things as absolutes ... others they just leave me to decide - I'll do it anyway and I just have a bit of a twinge of guilt - it usually doesn't stop me from doing that
P2	- my dad was like “just go in there!” It did not help.
P3	- learning to drive at a young age
P4	
P5	- mom would be back and forth [between controlling and permissive]: she would be very concerned about what was going on ... but then she would go back to not caring. And she would go back and forth - dad like when I moved in with him for the first year ... I could do anything, and he didn't ask questions, and then he got a girlfriend and he got extremely controlling and angry all the time about it ... Maybe [changing of controlling, permissive has impacted driving]. I drive a little more cautious - dad was so mad [after P5's incident] ... mom was more concerned than anything, but dad was just straight up mad. Didn't talk to me for a little while after that

P6	
P7	
Factors Parenting Style Fostered by	
P1	- respect for parents
P2	- permissiveness
P3	
P4	
P5	- discipline over driving-related misbehaviour
P6	- parents' trust in P6 - P6's perception of parents as safe drivers
P7	
Factors Parenting Style Hampered by	
P1	- low adherence to parental rules
P2	- negative parental emotions (e.g., anger)
P3	
P4	
P5	- inconsistency of parenting styles (both within and between parents)
P6	- limited information on the driving practices of others
P7	
Other Comments Regarding Parenting Style	
P1	
P2	- parent expectations remarked as being among most impactful on driving practices out of all modes discussed
P3	- one of two most influential modes
P4	- support for driving at young age seen as practical (e.g., help in an emergency) - cited by participant as one of three most important modes
P5	- although punishment stated as most influential mode, P5's description of it is also relevant to parenting style
P6	- one of two most influential modes
P7	
Relationships between Parenting Style and Other Constructs	
P1	- IM → (-) Parenting Style
P2	
P3	- CM Rural → Parenting Style → MM Driving - IM ← Parenting Style - CM Urban → Parenting Style → MM Driving - Parenting Style ↔ Family
P4	- CM Rural → Parenting Style → MM Driving - IM ← Parenting Style - Parenting Style ↔ Family

P5	<ul style="list-style-type: none"> - CM Rural → Parenting Style → MM Driving - IM ← Parenting Style - Parenting Style ↔ Family
P6	
P7	
Punishment	
Terms Indicating Punishment Effectively Transmitting CMs	
P1	<ul style="list-style-type: none"> - very low probability of getting pulled over - watching people mess up ... reinforces ... driving responsibly - don't want that to happen to me - drive more cautiously because there are more police - more to do with enforcement [than] ... wanting to drive more safely - rules in the city are stricter - not stopping at a stop sign if it's 2 AM [in rural settings]
P2	<ul style="list-style-type: none"> - been in a few car accidents - I try to be more cautious and correct whatever may have caused the last incidents - always seems to be circumstantial - my accidents - if there were more police in town I feel like [others] would be more cautious, but there often isn't - not want to fall into that statistic - rolled my car and I got a driving without due care and attention ticket ... didn't feel like I deserved it - it was loose gravel, so I just lost control ... So, that discouraged me - I drive slower now on gravel because I'm terrified - but I understood because you get points and they need like to deter you from bad driving - not wanting to get any more points ... Yeah, that scares me. I just don't want my license taken away [has most impact on driving practices]
P3	<ul style="list-style-type: none"> - more probation [in the city] - it's 80 [km/hr] on the grid roads but there's no one out there to see how fast you're driving - I'm very much more cautious [in the city] because you're paying attention to pedestrians - police officers everywhere in the city - more to pay attention to and there's more enforcement [in the city] - backed into someone ... had to pay for it - I've never been pulled over - I don't like parallel parking anymore. I never did to begin with. I'm gonna avoid that at all costs now - never had to file a claim like that before ... super daunting. I personally would not like to do that ever again - near misses- well, hitting a deer, that has happened a few times - was gonna change lanes, and this person ... They were so far away ... and then they were there again ... More cautious [driving now]. Super scary when that happens - pretty cautious until I get to my destination and then when I'm leaving again to get into my vehicle ... But I'm not like overly excessively - [when asked which mode is most influential] also, the punishment thing is huge - never had a ticket or anything like that

	- knowing that in the city here they have the photo radar speed patrolling thing ... keeps me in line
P4	<ul style="list-style-type: none"> - nobody ever got in accidents [at school from drinking and driving], but it was definitely obviously wrong. That's something that affected me more too and just made me want to do less - there were several large accidents in the area ... my brother is a few years older and he plays hockey with a bunch of the kids [who got in accidents]. So ... I was like "oh drinking and driving is bad" - I've been in the vehicle when ... there were accidents ... make you think about the way that you drive ... It does make you think about it but it's not something that's like I get in the vehicle every time and, "oh don't hit the median" ... I just kind of remember, "don't do this" - I've never had a driving infraction, I've never had speeding tickets or anything fortunately. I think my parents would've developed more rules if I had been a more reckless driver - I've been really lucky - I've gotten speed camera tickets. Or at least I thought it did ... I was terrified that I was going to get a ticket - my dad got a few speeding tickets ... they get pretty expensive if you get more than one. I think they do drive differently
P5	<ul style="list-style-type: none"> - ripping around on a grid road. And then he went into a slew and then we had to get someone to pick us up ... It's scary and I'm against it and I don't like it - hit the ditch last year due to ice so I'm overly cautious if there's any ice on the road now - it was pretty icy and people seemed to be driving fine, but I was going 100 because I didn't wanna mess with this. And a ton of other people were passing me - drive a little more cautious because I drive my dad's car technically ... When I just got my license ... I got in a small accident and like the car was fine and stuff, but he was mad. So, I was more cautious after that - ended up doing a 180 into a ditch and when the cop saw it he thought it was reckless driving ... could have gotten charged for that but the tow truck guy convinced the cop not to ... I'm overly cautious driving on ice now. - dad was so mad [after P5's incident] ... mom was more concerned than anything, but dad was just straight up mad. Didn't talk to me for a little while after that - [when asked about most influential mode] probably parents- like the punishments from parents. Because just like, when my dad would be mad at me at something that would happen ... I just feel really bad about it and not want it to happen again
P6	<ul style="list-style-type: none"> - there's more rules [in the city] too I would say ... because there's traffic lights and stuff and there's not at the farm - never gotten a speeding ticket or anything - never been stopped or warned or anything
P7	<ul style="list-style-type: none"> - law enforcement knows - if someone gets a DUI ... everyone just kind of gives them a pat on the back - I tend to stick to the rules ... except when it comes to a situation where it's kind of "okay of these two situations, putting an extra person in my car or having them drive home drunk" - "okay I'm going to drive home drunk and if I get in a car crash and die that's your fault" ... "Uh, okay you can squeeze in" - people are so accepting and nobody really cares that the rules are being broken - I've had two cousins who have passed away from car crashes ... It's really eye-opening of what can happen - failed my drivers test twice for not doing it so now I always make a point to do it - people just don't take what you're supposed to do very seriously. Like "I've done it this way forever and no problems thus far" - they always blame the situation - I definitely knew that if I did one thing wrong or if I did get a ticket for something then all of that [freedom] would be gone

	<ul style="list-style-type: none"> - my friend who hit the deer, I guess that was kind of a punishment for not paying attention ... after that happened I am definitely more conscientious of my surroundings - just seeing other people's punishments has affected me - I've never had an experience with the police while I've been driving
Terms Indicating Punishment Not Effectively Transmitting CMs	
P1	<ul style="list-style-type: none"> - very low probability of getting pulled over - not stopping at a stop sign if it's 2 AM [in rural settings]
P2	<ul style="list-style-type: none"> - [accidents] just keep happening and I'm not really sure why - made me angry because I felt like it was an unfair ticket - felt like I was being punished for surviving the accident - doing what [the law]'s supposed to, but it's not really having the effects that it should
P3	<ul style="list-style-type: none"> - I've never been pulled over - never had a ticket or anything like that
P4	<ul style="list-style-type: none"> - I've never had a driving infraction, I've never had speeding tickets or anything fortunately. I think my parents would've developed more rules if I had been a more reckless driver - [when asked about the most influential mode] I would say not getting any tickets makes me a better driver than other people ... I would say that if I did get a ticket I would probably slow down
P5	
P6	<ul style="list-style-type: none"> - never gotten a speeding ticket or anything - never been stopped or warned or anything - just going to keep doing what I'm doing. It must be good - [family members have had] maybe like one speeding ticket but that's about it
P7	<ul style="list-style-type: none"> - no repercussions if they don't get caught or if they don't hurt themselves or others - I've never had an experience with the police while I've been driving
Factors Punishment Fostered by	
P1	<ul style="list-style-type: none"> - seeing negative repercussions of others transgressing traffic laws - police officer presence (or lack of in rural settings) - perceived stricter traffic rules for city driving
P2	<ul style="list-style-type: none"> - legal repercussions - repercussions for personal safety
P3	<ul style="list-style-type: none"> - physical presence of enforcement (e.g., police officers and photo radar)
P4	<ul style="list-style-type: none"> - never having received legal reprimand for driving - learning vicariously through others' punishments
P5	<ul style="list-style-type: none"> - punishment/social disapproval from parents - legal repercussion (almost ticketed by police officer)
P6	<ul style="list-style-type: none"> - presence/absence of traffic regulation (e.g., lights or police officers) - lack of legal reprimand for driving violations
P7	<ul style="list-style-type: none"> - parents or traffic system withholding driving privilege - strong emotional and mental punishment

Factors Punishment Hampered by	
P1	- lack of police officer presence (in rural settings) - lack of perceived importance of driving safety
P2	- blame on circumstantial factors and thus perceiving punishment as unwarranted
P3	- lack of enforcement presence (e.g., police officers and photo radar)
P4	- feeling lucky to have not been punished
P5	- blaming punishment on circumstance
P6	
P7	
Other Comments Regarding Punishment	
P1	
P2	- legal punishment (SGI) remarked as being among most impactful on driving practices out of all modes discussed
P3	- one of the two most influential modes
P4	- cited by participant as one of three most important modes
P5	- stated as most influential mode
P6	
P7	- <i>lack of punishment</i> teaches that some driving practices are okay - P7 feels responsible for the safety of others. In other words, she is giving them rides to prevent feeling guilt in them driving drunk and perhaps getting injured - P7 sees other drivers blame circumstance for their incidents
Relationships between Punishment and Other Constructs	
P1	- CM Rural → (-) Punishment → MM Driving - IM → (-) Punishment - CM Urban → Punishment → MM Driving - Punishment ↔ Driving Authority
P2	- CM Rural → (-) Punishment → MM Driving - IM → (-) Punishment - IM ← Punishment - Punishment ↔ Driving Authority
P3	- CM Rural → (-) Punishment → MM Driving - IM ← Punishment - CM Urban → Punishment → MM Driving - Punishment ↔ Driving Authority
P4	- CM Rural → (-) Punishment → MM Driving - IM ← Punishment - CM Urban → Punishment → MM Driving - CM Urban → (-) Punishment → MM Driving - Punishment ↔ Driving Authority
P5	- CM Rural → Punishment → MM Driving

	<ul style="list-style-type: none"> - IM ← Punishment - Punishment ↔ Family - Punishment ↔ Driving Authority
P6	<ul style="list-style-type: none"> - CM Rural → Punishment → MM Driving - CM Rural → (-) Punishment → MM Driving - IM ← (-) Punishment - CM Urban → Punishment → MM Driving - CM Urban → (-) Punishment → MM Driving - Punishment ↔ Driving Authority
P7	<ul style="list-style-type: none"> - CM Rural → (-) Punishment → MM Driving - IM → (-) Punishment - CM Urban → Punishment → MM Driving - CM Urban → (-) Punishment → MM Driving - Punishment ↔ Driving Authority
Monitoring	
Terms Indicating Monitoring Effectively Transmitting CMs	
P1	<ul style="list-style-type: none"> - my brothers will make fun of me for not going fast enough - friends ... they will tell me to go faster - sometimes I will, sometimes I won't, depending on how the roads are - it will affect me sometimes
P2	<ul style="list-style-type: none"> - dad's always telling me like "drive slower", "do this" - my one friend ... she's basically a driving instructor for me ... she's always bringing me confidence ... it is helpful - when I drive with friends I feel better in my driving because I feel like if I don't see something, they will ... I feel safer that way [has most impact on driving practices]
P3	<ul style="list-style-type: none"> - when I have someone with me everything goes wrong - you miss a light or you stop too soon for a light - when [friends from back home] driving with me I can tell they're kind of like, tense and on edge kind of thing ... It makes me nervous - my mom though ... she's tensed up and holding onto ... the "holy shit handle" - I'll like, slow down and ask [mother] what's wrong, and she's like "oh you know, just on edge driving with you" ... Okay well I don't know what to do about that
P4	<ul style="list-style-type: none"> - I've had a couple people be like "oh speed up, let's hurry up and just get to the city already"
P5	<ul style="list-style-type: none"> - with someone, I'm a lot more cautious and I pay a lot more attention - [dad is] basically just driving in town and saying, "well you don't have to drive that fast" and I'll be like driving 40
P6	<ul style="list-style-type: none"> - in the vehicle [parents] always had stuff to say. Like, "oh you're turning your corners too fast". Like they're always there. - [parents] constantly nagging me about things. I feel like they still do once in a while and I'm just like "okay I've been driving for a while now, are you kidding? Lay off a little bit." But yeah, they still do. They always think I can do better but ... it is [a good thing] - when I do drive with other people I definitely drive more cautious just knowing that their lives are in my hands
P7	<ul style="list-style-type: none"> - with my parents in the passenger seat, they would often just tell me "oh don't do that".

	<ul style="list-style-type: none"> - driving with a friend and one person ... they were changing lanes and they shoulder checked and my friend was like "you shoulder check? Like who does that?". Like "aren't you supposed to?" - [mom's] a nervous driver in the city so then she's an even more nervous driver trying to teach me to drive in the city. It just kind of amplifies her nervousness - I think just any differences or any time [friends] see me do something that they don't do, sometimes they comment on it and sometimes it's just a comment and other times it's like "should I be doing that?"
Terms Indicating Monitoring Not Effectively Transmitting CMs	
P1	<ul style="list-style-type: none"> - my parents, they don't really police my driving - sometimes I will, sometimes I won't, depending on how the roads are - it will affect me sometimes - if they're not with me I'll drive to my own accord
P2	<ul style="list-style-type: none"> - my dad was like "just go in there!" It did not help - other than [friend], not really [anyone monitoring driving] unless I'm driving with a parent because then they always freak out
P3	<ul style="list-style-type: none"> - I don't really take extreme measures to accommodate them
P4	<ul style="list-style-type: none"> - wasn't as much supervision [at boarding school] - I've had a couple people be like "oh speed up, let's hurry up and just get to the city already" ... I don't usually listen to them ... Yeah, I don't feel very pressured - I'm kind of a bossy person so if somebody is telling me to speed up I'll tell them no
P5	<ul style="list-style-type: none"> - driving with my friends they'll usually just be on their phone or talk to me. I don't think they pay attention - [friends being relaxed doesn't impact driving] unless it's bad roads and I freak myself out
P6	<ul style="list-style-type: none"> - I'll drive my sister and her friends around places and I've always noticed that they're on their phones and not even paying attention
P7	<ul style="list-style-type: none"> - with my parents in the passenger seat, they would often just tell me "oh don't do that". "Well what am I supposed to do?" "I don't know, just don't do that". Like they don't have the skills to teach
Factors Monitoring Fostered by	
P1	<ul style="list-style-type: none"> - family and friends
P2	<ul style="list-style-type: none"> - friend who acts as a "driving instructor"
P3	
P4	
P5	
P6	<ul style="list-style-type: none"> - respect for parents
P7	<ul style="list-style-type: none"> - trust in friends
Factors Monitoring Hampered by	
P1	<ul style="list-style-type: none"> - perceived safety of driving conditions
P2	<ul style="list-style-type: none"> - overly critical or angry father
P3	<ul style="list-style-type: none"> - confidence in driving practices (IM)
P4	
P5	
P6	

P7	- perceived inadequacy of parents' driving skills
Other Comments Regarding Monitoring	
P1	
P2	- friends' monitoring remarked as being among most impactful on driving practices out of all modes discussed
P3	
P4	- potentially, individual model of driving that is unaccommodating of passengers' comments
P5	
P6	- P6 drives more cautiously even though passengers are not monitoring her driving
P7	
Relationships between Monitoring and Other Constructs	
P1	- CM Rural → Monitoring → MM Driving - IM → Monitoring (-) - Monitoring ← Family - Monitoring ← Friends and Peers
P2	- CM Urban → Monitoring → MM Driving - IM ← Monitoring - Monitoring ← (-) Family - Monitoring ← Friends and Peers
P3	- IM ← Monitoring - IM → Monitoring (-)
P4	- CM Rural → Monitoring → MM Driving - Monitoring ← (-) IM
P5	- IM ← Monitoring
P6	- CM Rural → Monitoring → MM Driving - IM ← Monitoring - Monitoring ← Family
P7	- CM Rural → Monitoring → MM Driving - IM ← Monitoring - CM Urban → Monitoring → MM Driving - Monitoring ← (-) Family - Monitoring ← Friends and Peers
Print Educational Material	
Terms Indicating Print Educational Material Effectively Transmitting CMs	
P1	
P2	
P3	
P4	- I also took driver training through SGI or whatever you do in high school here ... that helps to learn - dad was the one who was kind of helping me learn how to drive, doing the whole book that you do

P5	
P6	
P7	
Terms Indicating Print Educational Material Not Effectively Transmitting CMs	
P1	
P2	
P3	- I learned some really good skills [driving at a young age] ... I've learned all that stuff in a realistic thing rather than reading it in a book
P4	
P5	
P6	
P7	- you can't learn to cook without getting in the kitchen - a lot more difficult to remember the booklet and what it told me to do [than what an instructor or parent has said]
Factors Print Educational Material Fostered by	
NO DATA	
Factors Print Educational Material Hampered by	
NO DATA	
Other Comments Regarding Print Educational Material	
P1	
P2	
P3	- real-life experience more valuable for learning than reading (inferred)
P4	
P5	
P6	
P7	
Relationships between Print Educational Material and Other Constructs	
P1	
P2	
P3	
P4	- Print Educational Material ← (//) Family
P5	
P6	
P7	
Family	
Terms Indicating Family Effectively Transmitting CMs	
P1	- I have had family ... drink and drive - enforce some things as absolutes ... others they just leave me to decide - very strict about not turning cruise control on

	<ul style="list-style-type: none"> - my brothers will make fun of me for not going fast enough - sometimes I will, sometimes I won't, depending on how the roads are - it will affect me sometimes ... sometimes I'll be like, "fine I'll go faster"
P2	<ul style="list-style-type: none"> - my dad's always telling me like "drive slower", "do this" - they can be a bit controlling - it is nice that they trust me because it makes me feel more confident in my abilities - I feel like they wouldn't trust me at all [if they set lots of rules] and feel like I wasn't a good driver - they're in agreeance [when discussing bad drivers] - my parents' expectations [has most impact on driving practices]
P3	<ul style="list-style-type: none"> - my sister ... She's very aggressive - knowing that other people are [aggressive drivers], makes me change my driving so that I'm not the one getting into an accident - I really like it when my mom is like a Nazi driver ... two hands ... really prestigious; shoulder checks ... I've kind of let onto that now that I live in the city. I ... do a lot of that - [sister's] more laid back ... doesn't really shoulder check ... less cautious [than mother] - when I first started driving, my parents were ... Controlling - my mom, she was always the one that was grabbing the handle in the car and being like "oh my gosh, slow down!" - my dad, he was more laid back ... I always had this sense that I was doing fine when I was driving with him - [parents] trust me like way more now than initially - [when asked which mode is most influential] parenting style definitely - [parents] being more lenient and open to early exposure was really nice, and I think has really benefited me in the long run
P4	<ul style="list-style-type: none"> - dad used to be a driver trainer ... taught me how to be do defensive driving - seen my parents do a lot of that driving ... five-hour drive probably about once a month - speeding wasn't really taboo ... allowed to the point of still being safe - it's not like we're speed demons or anything - just being able to realize, "oh there's not that much traffic on the road" - a thing that my parents stressed ... was the speed limit is the speed limit but also if you are speeding to make sure- well ... you don't have to obey the rules at all cost - we've had radar detectors and stuff - my brother has [a radar detector] ... So, he does speed. Like, he doesn't want to get a ticket, but it doesn't make him speed dangerously - my grandparents had a really big farm ... So I learned to drive really young because of that - my grandma actually- it was before I was born that she had rolled her van like a bunch of times and she was in a rural area which as I said before is really far from the nearest town and she had rolled her van and was in the ditch for a while - those conversations were just going on in the background, but I was picking a lot of it up - dad talking about like, "oh backing off of other vehicles" ... I consciously think about that and back off of other vehicles - my dad had the same conversations with me later, but I picked it up a lot up earlier with him talking to my brother - started driving a dirt bike when I was four ... I started learning to drive cars when I was about 10 just on the farm, with sitting on someone's lap ... parents were never super nervous about doing things like that - it's not like they were letting me be unsafe, they always made sure I was wearing a helmet and things like that. They just let me kind of run around on a dirt bike - my dad was the one who was kind of helping me learn how to drive

	- [when asked about the most influential mode] probably just the way that I was taught to drive ... my dad being a driver trainer. He used to be really on me about how I drive
P5	<ul style="list-style-type: none"> - drive cautiously because my parents drove really cautious but not as cautious because ... my friends drive and they're a lot more reckless - my family is overly cautious driving, like they won't go a kilometre over the speed limit. And my brother especially, he's always hands on 10 and 2 ... I guess it's good that they are cautious but sometimes I think it's too much ... From watching them, it's kind of where I got a general idea of how to drive before I even did, which helped me I guess - parents think that I shouldn't speed, especially if the road conditions aren't too good - maybe [changing of controlling, permissive has impacted driving]. I drive a little more cautious - drive a little more cautious because I drive my dad's car technically ... When I just got my license ... I got in a small accident and like the car was fine and stuff, but he was mad. So, I was more cautious after that - practiced driving with [parents]. My mom taught me how to drive on the highway on curbs because I couldn't do that. It freaked me out especially if there were other vehicles and she told me to look at whichever line was beside you, and that helped a lot. So, I guess that impacted me - make sure I have good tires now. Because before we didn't because my dad was like, "oh I don't wanna spend the money on it" - dad was so mad [after P5's incident] ... mom was more concerned than anything, but dad was just straight up mad. Didn't talk to me for a little while after that - [when asked about most influential mode] probably parents- like the punishments from parents. Because just like, when my dad would be mad at me at something that would happen, ... I just feel really bad about it and not want it to happen again
P6	<ul style="list-style-type: none"> - [siblings] influence me in a good way I would say - [siblings] always give me heck if they thought I was driving too fast ... actually makes a difference when ... driving - [parents] would always set like good examples. They would never go over the speed or do anything to scare me ... always calm with them which has influenced me to try to be a good driver and be careful - [parents are] pretty easy-going and they trust me. But when it comes to driving, especially when I was learning, in the vehicle they always had stuff to say. Like, "oh you're turning your corners too fast" - [parents] constantly nagging me about things. I feel like they still do once in a while ... it is [a good thing] - [parents have] said some things to me so often, I'll be driving and still have their voice in my head like, "I should not turn my corners too fast" ... it's helped me - [when asked about most influential mode] I feel like it would just be my parents because they're the ones who basically taught me how to drive. So, I listen to them the most
P7	<ul style="list-style-type: none"> - I've had two cousins who have passed away from car crashes ... It's really eye-opening of what can happen - in driving, [parents] were a little more on the permissive side - I was talking to my parents about [a friend's accident] ... "we would probably ask if you are okay and if you are okay ... we don't care about the vehicle" - [mom's] a nervous driver in the city so then she's an even more nervous driver trying to teach me to drive in the city
Terms Indicating Family Not Effectively Transmitting CMs	
P1	<ul style="list-style-type: none"> - I'll do it anyway and I just have a bit of a twinge of guilt - it usually doesn't stop me from doing that - my parents, they don't really police my driving - sometimes I will, sometimes I won't, depending on how the roads are - it will affect me sometimes ... sometimes I'll be like, "fine I'll go faster" - if they're not with me I'll drive to my own accord

P2	- my dad was like “just go in there!” It did not help - [no monitoring] unless I'm driving with a parent because then they always freak out
P3	
P4	
P5	- I personally did not [learn to drive at a young age] ... Closest thing- like I sat on my mom's lap and drove around in a yard - brother doesn't say anything [about driving]. He doesn't really care - my mom doesn't think I should speed but I don't drive with her, so she can't stop me - my family is overly cautious driving, like they won't go a kilometre over the speed limit. And my brother especially, he's always hands on 10 and 2 ... I guess it's good that they are cautious but sometimes I think it's too much ... From watching them, it's kind of where I got a general idea of how to drive before I even did, which helped me I guess - mom would be back and forth [between controlling and permissive]: she would be very concerned about what was going on ... but then she would go back to not caring. And she would go back and forth - dad like when I moved in with him for the first year ... I could do anything, and he didn't ask questions, and then he got a girlfriend and he got extremely controlling and angry all the time about it ... Maybe [changing of controlling, permissive has impacted driving]. I drive a little more cautious
P6	- [family members have had] maybe like one speeding ticket but that's about it
P7	- you're just supposed to learn everything from your parents - if your parents aren't very good drivers then you don't really have anyone else to ask questions - [parents] don't have the skills to teach - they didn't set a lot of rules about driving ... It was good - [mom] just lets me do my thing and she's not really like a backseat driver - I've never really been punished for driving by parents
Factors Family Fostered by	
P1	- physical presence of parents or siblings
P2	- parents' trust
P3	
P4	- dad's previous occupation of driver trainer - frequent long drives during childhood
P5	- parents being primary (informal) driver instructors - parent-enforced punishment
P6	- overt verbal communication and parenting style
P7	- parents' trust, warmth, and lenient rules
Factors Family Hampered by	
P1	- absence of family members' presence - perceived safety of driving conditions
P2	- parents' aggression
P3	
P4	
P5	- perception of parents as overly cautious
P6	

P7	- perceived inadequacy of parents' driving skills and teaching abilities
Other Comments Regarding Family	
P1	
P2	
P3	- parenting style one of two most influential modes
P4	- dad made a huge impact on P4's MM
P5	- family members are cautious drivers
P6	- parents part of the most influential modes (overt verbal communication and parenting style)
P7	
Relationships between Family and Other Constructs	
P1	- CM Rural → Family → MM Driving - IM → (-) Family - Family → Monitoring
P2	- IM ← Family - Family → Monitoring (-)
P3	- CM Rural → Family → MM Driving - IM ← Family → MM Driving - CM Urban → Family → MM Driving - Family ↔ Parenting Style
P4	- CM Rural → Family → MM Driving - Family → Observation and Modeling - Family ↔ Overt Verbal Communication - Family ↔ Parenting Style
P5	- CM Rural → Family → MM Driving - IM ← Family → IM (+) - IM → (-) Family - Family ↔ Parenting Style - Family ↔ Punishment
P6	- CM Rural → Family → MM Driving - IM ← Family - Family ↔ Overt Verbal Communication - Family → Monitoring
P7	- IM ← Family - CM Urban → Family → MM Driving - Family ↔ (-) Overt Verbal Communication - Family → (-) Monitoring
Friends and Peers	
Terms Indicating Family and Peers Effectively Transmitting CMs	

P1	<ul style="list-style-type: none"> - a lot of reckless driving - drink and drive - learned from a lot of other people's mistakes - reinforces the idea that I should be driving responsibly - they do pressure others to do it - upsetting - nothing that I can say - won't use their cell phones and won't drive recklessly [when they're in the city] - reinforce that on one another - driving is just a means for them to get to a party and have fun ... the drunk driving part doesn't really matter to them - unless someone says stop while they're doing it, they will still do it - they will tell me to go faster ... sometimes I will, sometimes I won't, depending on how the roads are
P2	<ul style="list-style-type: none"> - a lot of guy friends growing up that drove kind of recklessly - makes you more cautious because I don't drive like that - an example of what not to do - my one friend ... she's basically a driving instructor for me ... she's always bringing me confidence ... it is helpful - when I drive with friends I feel better in my driving because I feel like if I don't see something, they will ... I feel safer that way [has most impact on driving practices]
P3	<ul style="list-style-type: none"> - [a friend] would drive on the gravel road so that she could drive faster and have a less chance of meeting a cop - dangerous to drive on grid roads when other people like that are on them - so many near-miss stories ... super scary - don't like driving at night because other people have had near misses or basically hit other wildlife - out of nowhere three deer came ... they came out of nowhere ... "wow, I really don't want to hit something" - when they're driving with me I can tell they're kind of like, tense and on edge kind of thing ... It makes me nervous
P4	<ul style="list-style-type: none"> - friends in high school drink and drive, or backroad cruising - there were several large accidents in the area ... my brother is a few years older and he plays hockey with a bunch of the kids [who got in accidents]. So ... I was like "oh drinking and driving is bad" - as I got older a lot of my friends were [drinking and driving] - discouraging to try and discourage [peers from drinking and driving] and I guess because they always get mad
P5	<ul style="list-style-type: none"> - driving with friends and seeing how my friends drive and they're a lot more reckless [than parents]. I'm not overly reckless but I'm influenced by my friends
P6	<ul style="list-style-type: none"> - [friends] were more risky drivers so then I think that influenced me a little bit because I'd feel like "oh it's okay if I'm a little bit over the speed limit because my friends do it all the time" - [friends] drive pretty dangerously at times. Just sitting there and being in the vehicle like, I just don't want to be like that because it scares me - I've been with my friends when they've almost been in accidents ... I'm going to drive more cautiously myself because I don't want to put other people in danger - my one friend would drive really fast ... That really scares me because we would like fishtail or swerve ... We kind of ended up flying in the ditch and it was really steep - a couple of guys in my class ... rolled their vehicle ... because of that sometimes I'm really cautious when I'm tired
P7	<ul style="list-style-type: none"> - the peer pressure to drink is off the charts

	<ul style="list-style-type: none"> - [drunk driving is] not as shamed as it should be within the peers and community - no social repercussions [for drunk driving]; everyone just kind of gives them a pat on the back - one guy said "can I come with you" she said no that she had a full vehicle. "Okay I'm going to drive home drunk and if I get in a car crash and die that's your fault". He said that to her and she said, "uh, okay you can squeeze in". - my friend was like "you shoulder check? Like who does that?" - [when asked about the most influential mode] I think it's mostly my peer groups that have influenced my driving and the behaviours of other people in your peer group - seeing your friends drive when you're in a vehicle ... gives you an example of how you should be driving and of what's necessary and what's not necessary too, like shoulder checking
Terms Indicating Family and Peers Not Effectively Transmitting CMs	
P1	<ul style="list-style-type: none"> - it does affect how I think about it, but I don't think it will affect my decision - they will tell me to go faster ... sometimes I will, sometimes I won't, depending on how the roads are - if they're not with me I'll drive to my own accord
P2	
P3	- I don't really take extreme measures to accommodate them
P4	
P5	<ul style="list-style-type: none"> - driving with my friends they'll usually just be on their phone or talk to me. I don't think they pay attention - [friends being relaxed doesn't impact driving] unless it's bad roads and I freak myself out
P6	
P7	- with the peer pressure, does that come into play at all in your driving? ... No
Factors Friends and Peers Fostered by	
P1	<ul style="list-style-type: none"> - exemplifying what not to do (vicarious learning) - physical presence of friends
P2	
P3	
P4	
P5	
P6	
P7	
Factors Friends and Peers Hampered by	
P1	<ul style="list-style-type: none"> - absence of friends' presence - perceived safety of driving conditions - negative affect
P2	
P3	
P4	- perceiving friends' driving behaviours to be bad examples
P5	- unwillingness to drive too recklessly
P6	- resistance against internalizing others' unsafe driving practices

P7	- relatively safe individual model of driving
Other Comments Regarding Friends and Peers	
P1	- friends are predominantly unsafe drivers (negative influence)
P2	- for P2, some friends exemplify what <i>not</i> to do
P3	
P4	
P5	- friends are reckless drivers
P6	
P7	- cited as most influential source of transmission
Relationships between Friends and Peers and Other Constructs	
P1	- CM Rural → Friends and Peers → MM Driving - IM → (-) Friends and Peers - CM Urban → Friends and Peers → MM Driving - Friends and Peers → Overt Verbal Communication - Friends and Peers → Monitoring
P2	- CM Rural → Friends and Peers → MM Driving - IM ← Friends and Peers - CM Urban → Friends and Peers → MM Driving - Friends and Peers → Monitoring
P3	- CM Rural → Friends and Peers → MM Driving
P4	- CM Rural → Friends and Peers → MM Rural - Friends and Peers ← (-) IM
P5	- CM Rural → Friends and Peers → MM Driving - IM ← Friends and Peers
P6	- CM Rural → Friends and Peers → MM Driving - IM → (-) Friends and Peers
P7	- CM Rural → Friends and Peers → MM Driving - IM ← Friends and Peers - IM → (-) Friends and Peers - Friends and Peers → Observation and Modeling - Friends and Peers → Monitoring
Driving Authority	
Terms Indicating Driving Authority Effectively Transmitting CMs	
P1	- driver's education - tell you to drive defensively - MADD and SADD - how they drive more cautiously because there are more police - won't use their cell phones and won't drive recklessly

	<ul style="list-style-type: none"> - it's got a lot more to do with enforcement and not so much with like wanting to drive more safely - if [my friends] could they would - I haven't been involved in any driving related incidents - my record is clean
P2	<ul style="list-style-type: none"> - driving instructor said that one in three people get in a car crash ... that made me not want to fall into that statistic - if there were more police in town I feel like [drivers] would be more cautious - but I understood because you get points and they need like to deter you from bad driving - I drive slower now on gravel because I'm terrified - not wanting to get any more points ... Yeah, that scares me. I just don't want my license taken away [has most impact on driving practices]
P3	<ul style="list-style-type: none"> - lack of physical presence (e.g., officers, photo radar) - there's more enforcement [in the city] - had to file a claim ... would not like to do that ever again - knowing that in the city here they have the photo radar speed patrolling thing ... keeps me in line - never had a ticket or anything like that
P4	<ul style="list-style-type: none"> - took driver training through SGI or ... high school ... So that also helps to learn - drinking and driving is bad. They tell you that in school, but it pretty much should be common sense - in driver's education, they discuss drunk driving ... that probably affected the way that I think about it now for sure - a lot of rules around on my car, they just were my parents' rules. They were the school's - I've gotten speed camera tickets. Or at least I thought it did ... I was terrified that I was going to get a ticket - my dad got a few speeding tickets ... they get pretty expensive if you get more than one. I think they do drive differently - I've never had a driving infraction, I've never had speeding tickets or anything fortunately. I think my parents would've developed more rules if I had been a more reckless driver - not getting any tickets makes me a better driver
P5	<ul style="list-style-type: none"> - was more my driver instructor trainer person I guess [than parents] that taught me more about it - ended up doing a 180 into a ditch and when the cop saw it he thought it was reckless driving ... could have gotten charged for that but the tow truck guy convinced the cop not to ... I'm overly cautious driving on ice now. I probably drive slower than I need to. I also make sure I have good tires now. Because before we didn't because my dad was like, "oh I don't wanna spend the money on it"
P6	<ul style="list-style-type: none"> - in drivers ed there's still a few things that really stick out to me ... shoulder checking ... I still can hear her- my drivers ed instructor – in my head sometimes - never gotten a speeding ticket or anything - never been stopped or warned or anything - just going to keep doing what I'm doing. It must be good
P7	<ul style="list-style-type: none"> - law enforcement knows - I failed my drivers test twice for not [turning properly] ... Well I failed twice for doing it, so I better learn my lesson - I've never had an experience with the police while I've been driving - never really been punished for driving by ... police
Terms Indicating Driving Authority Not Effectively Transmitting CMs	
P1	<ul style="list-style-type: none"> - MADD and SADD - they don't override the whole ritual that people seem to have adopted - if [my friends] could they would

	<ul style="list-style-type: none"> - I haven't been involved in any driving related incidents - my record is clean
P2	<ul style="list-style-type: none"> - rolled my car and I got a driving without due care and attention ticket ... didn't feel like I deserved it - it was loose gravel, so I just lost control ... So, that discouraged me - made me angry because I felt like it was an unfair ticket - felt like I was being punished for surviving the accident - doing what [the law]'s supposed to, but it's not really having the effects that it should
P3	<ul style="list-style-type: none"> - it's 80 [km/hr] on the grid roads but there's no one out there to see how fast you're driving - never had a ticket or anything like that
P4	<ul style="list-style-type: none"> - wasn't as much supervision [at boarding school] ... there was a lot of students at our school who would [drink and drive] - I've never had a driving infraction, I've never had speeding tickets or anything fortunately. I think my parents would've developed more rules if I had been a more reckless driver - not getting any tickets makes me a better driver
P5	
P6	<ul style="list-style-type: none"> - never gotten a speeding ticket or anything - never been stopped or warned or anything - just going to keep doing what I'm doing. It must be good
P7	<ul style="list-style-type: none"> - I got this license and I'm not prepared for everything that driving has - I've never had an experience with the police while I've been driving - never really been punished for driving by ... police
Factors Driving Authority Fostered by	
P1	<ul style="list-style-type: none"> - formal driver's education - police officer presence - drunk driving initiatives
P2	<ul style="list-style-type: none"> - statistical facts - legal repercussions
P3	<ul style="list-style-type: none"> - physical presence (e.g., officers, photo radar)
P4	<ul style="list-style-type: none"> - never had a ticket or anything like that
P5	
P6	<ul style="list-style-type: none"> - lack of negative consequences provided by driving authority
P7	
Factors Driving Authority Hampered by	
P1	<ul style="list-style-type: none"> - lack of police officer presence - ingrained culture of unsafe driving - lack of memorable experiences with driving authority
P2	<ul style="list-style-type: none"> - physical absence of authority figures (e.g., police officers) - perceived blame on environmental factors for reprimand from driving authority
P3	<ul style="list-style-type: none"> - lack of physical presence (e.g., officers, photo radar)
P4	

P5	
P6	
P7	
Other Comments Regarding Driving Authority	
P1	
P2	
P3	- punishment one of two most influential modes
P4	
P5	
P6	
P7	
Relationships between Driving Authority and Other Constructs	
P1	- CM Rural → Driving Authority → MM Driving - CM Rural → (-) Driving Authority → MM Driving - IM ← (-) Driving Authority - CM Urban → Driving Authority → MM Driving - Driving Authority ↔ Punishment
P2	- CM Rural → (-) Driving Authority → MM Driving - IM → Driving Authority (-) - IM ← Driving Authority - Driving Authority ↔ Punishment
P3	- CM Rural → (-) Driving Authority → MM Driving - IM ← Driving Authority - CM Urban → Driving Authority → MM Driving - Driving Authority ↔ Punishment
P4	- CM Rural → (-) Driving Authority → MM Driving - IM ← Driving Authority - CM Urban → Driving Authority → MM Driving - CM Urban → (-) Driving Authority → MM Driving - Driving Authority ↔ Punishment
P5	- CM Rural → Driving Authority → MM Driving - IM ← Driving Authority - Driving Authority ↔ Punishment
P6	- CM Rural → Driving Authority → MM Driving - CM Rural → (-) Driving Authority → MM Driving - IM ← (-) Driving Authority - CM Urban → Driving Authority → MM Driving - CM Urban → (-) Driving Authority → MM Driving - Driving Authority ↔ Punishment

P7	<ul style="list-style-type: none"> - CM Rural → Driving Authority → MM Driving - CM Rural → (-) Driving Authority → MM Driving - IM ← Driving Authority - CM Urban → Driving Authority → MM Driving - CM Urban → (-) Driving Authority → MM Driving - Driving Authority ↔ Punishment
Other Drivers	
Terms Indicating Other Drivers Effectively Transmitting CMs	
P1	<ul style="list-style-type: none"> - better sense of the road laws - disregard or lack of knowledge for driving etiquette - people tend to follow them - easier to drive safely
P2	<ul style="list-style-type: none"> - how impatient people are when they drive around you [influences driving practices] - people would run the yellow and five more people would run the red - no one really stops there - people just honk at each other if you don't go right away - you don't go fast enough, people are going to honk at you
P3	<ul style="list-style-type: none"> - other people are driving ... there's just lots of things you have to look out for in the city rather than rurally - always worried about how other people drive - wake up and see that it's snowed ... I definitely like, leave extra time for people who don't drive as cautiously as I do - knowing that other people are like that, makes me change my driving - in the city, you have to watch for ... people coming up behind you and people coming up in other lanes - [pedestrians] are actually getting hit [in the city] - was gonna change lanes, and this person ... They were so far away ... and then they were there again ... More cautious [driving now]. Super scary when that happens
P4	<ul style="list-style-type: none"> - not used to driving with that many people around - I just get really mad ... some people just cut me off - seeing other drivers get angry on the road ... I'll try to either move away from that situation or just kind of get angry also - I think a lot of people are really set in their ways
P5	<ul style="list-style-type: none"> - on highways I drive probably around 110 because that's what everyone else does ... If I drive 100, I'm getting passed a lot ... I would say that's an influence of others - sometimes I feel like I should speed up because I've heard other people say "oh it's so annoying when other people are driving that speed and you have to pass them all the time"
P6	<ul style="list-style-type: none"> - [city driving is] when I fully learned to drive because where I grew up there's no one really, not many vehicles, not much traffic, not much to be careful about - in the city I feel like you learn how to do everything
P7	<ul style="list-style-type: none"> - parties ... where people go there, bring a vehicle full of people and the driver is drinking - even parents have come and picked up a car full of people, way more than they should - they would just get their kid to blow in [the breathalyzer]

	<ul style="list-style-type: none"> - the parent didn't want to quit drinking and driving - [drinking and driving is] not as shamed as it should be within the peers and community - no repercussions if they don't get caught or if they don't hurt themselves
Terms Indicating Other Drivers Not Effectively Transmitting CMs	
P1	
P2	
P3	
P4	
P5	- it was pretty icy and people seemed to be driving fine, but I was going 100 because I didn't wanna mess with this. And a ton of other people were passing me
P6	<ul style="list-style-type: none"> - in the city I feel like you learn how to do everything - even in my exam, the parallel parking it really wasn't anything like it is Saskatoon
P7	
Factors Other Drivers Fostered by	
P1	- (lack of) adherence to road laws
P2	
P3	
P4	- negative emotions that "rub off" on P4
P5	- experience with past driving-related incidents
P6	- high traffic volume
P7	
Factors Other Drivers Hampered by	
P1	
P2	
P3	
P4	
P5	
P6	- low traffic volume
P7	
Other Comments Regarding Other Drivers	
P1	
P2	- little indication of strength of influence
P3	
P4	
P5	
P6	
P7	
Relationships between Other Drivers and Other Constructs	

P1	- CM Urban → Other Drivers → MM Driving
P2	- CM Rural → Other Drivers → MM Driving
P3	- CM Rural → Other Drivers → MM Driving - IM ← Other Drivers - CM Urban → Other Drivers → MM Driving
P4	- CM Urban → Other Drivers → MM Driving - Other Drivers → Observation and Modeling
P5	- CM Rural → Other Drivers → MM Driving - IM ← Other Drivers - CM Urban → Other Drivers → MM Driving
P6	- CM Rural → MM Driving - IM ← Other Drivers - CM Urban → MM Driving
P7	- CM Rural → Other Drivers → MM Driving