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Nonverbal communication during the learner lesson with a professional driving instructor: A novel investigation

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ABSTRACT

Background: Fundamental for the development of the driving and road use skills of the young driver is learning to drive through driving instruction and, in graduated driver licensing programs such as in Australia, driving supervision. In Queensland young drivers are required to log a minimum of 100 h supervised practice, with recent research revealing that parents provide most of this supervision. Queensland also offers young drivers a 10-h 3-for-1 bonus for professional driving instruction, such that one hour of professional instruction can be logged as three hours of practice, to a maximum of 30 logbook hours. Recent research efforts have begun to provide insight into the nature of the verbal instruction of both parents and professional instructors, and into the nonverbal communication between parents and learners. However nothing is known regarding the nonverbal communication between professional instructors and learners.

Method: Ten learner lessons (five male learners) with four professional instructors (four males) were captured via GoPro cameras. The nonverbal communication during the first, middle, and last 10 min of each lesson was coded as being posture and body orientation, gestures, facial expressions, proximity, humour, and eye contact, within the context of the accompanying verbal communication according to the *value* of (a) eager, or (b) cautious; the *valence* of (a) neutral, (b) positive, or (c) negative; and the *purpose* of (a) rapport, or (b) communication.

Results: Overall, posture and body orientation was the most common mechanism of nonverbal communication, while facial expressions and proximity were the least common mechanisms of nonverbal communication. In general the beginning, the middle, and the end of the lessons were characterised by a plethora of neutral, cautious interactions, and positive, eager interactions. However it is noteworthy that the rates at which learners and instructors engaged in these behaviours were found to change across the lesson. Specifically learners actively communication nonverbally through mechanisms such as eye contact, facial expressions and humour, while instructors appeared to manage building rapport and communicating safe vehicle and road use through nonverbal communication such as gestures, facial expressions and posture and body orientation, summarised in a model comprising a continuum of instruction.

Discussion: While nonverbal communication is fundamental for effective verbal communication, and on occasion can replace verbal communication, and as such the professional – and the parental – driving lesson should optimise the use of nonverbal communication, at this time the optimal nature of nonverbal communication remains unknown. In addition,

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optimal verbal and nonverbal communication specifically suited to the driving context which involves a dynamic environment outside the vehicle, and at times a dynamic environment inside the vehicle, remains yet to be identified. The research findings provide unique insight into the nature of the nonverbal communication used by both learner drivers and professional driving instructors, in addition to the continuum of instruction model. As such, the findings provide a solid foundation for future research into, and guidance regarding, optimising the learner driving lesson.

1. Introduction

Learning to drive under the instruction[1] and/or supervision[2] of an experienced driver is an essential first step in the path to independent licensure for novice drivers in motorised jurisdictions around the world. Such practice is typical of the first stage of licensing in graduated driver licensing (GDL) programs implemented in countries including Australia, New Zealand, the United States, and Canada. In the Australian state of Queensland, from age 16 years, adolescents can obtain a learner driver's licence after passing the learner theory test. Learner drivers (herein referred to as learners) must accrue a minimum of 100 h of supervised driving practice (at least 10 h of which must be at night), recorded in a logbook. This mandatory practice must be accrued during a minimum one year period before attempting the practical driving test and, if successful, progressing to independent, albeit restricted, licensure (DTMR, 2013), the Queensland GDL learner phase practice requirements exemplifying the well-recognised benefits of accruing extended supervised driving practice (e.g., Ehsani, Bingham, & Shope, 2013; Gregersen, Nyberg, & Berg, 2003).

Perhaps unsurprisingly, parents are consistently reported as the most common driving supervisor in Queensland (Scott-Parker, Bates, Watson, King, & Hyde, 2011) and the neighbouring Australian state of New South Wales (which has a 120-h practice minimum, 20 h which must be undertaken at night) (Bates et al., 2014). It is noteworthy that there is no compulsory education or training for non-professional supervisors of learners – such as parents – in Australia. In addition, parents infrequently access additional resources (Scott-Parker & Naz, 2017) consistent with experiences elsewhere (e.g., North Dakota, Gill, Shults, Cope, Cunningham, & Freelon, 2013). It is also noteworthy that, while parents of learners have been found to provide most of the learner supervision, professional driving instructors (herein referred to as instructors) also provide instruction. In Queensland (and in New South Wales) there is a 3-for-1 logbook concession, such that driving for one hour under the supervision of an instructor equates to three logbook hours, up to a maximum of 30 logbook hours (hence corresponding to 10 h of on-road driving supervision; Scott-Parker & Rune, 2016). Queensland requires that all instructors, who are paid a fee for their instruction, must be accredited by the government licensing department as driver trainers. As such driving instructors must (a) have a valid open (unrestricted) driver's licence; (b) have a sound traffic history record (a traffic and/or criminal offence history may preclude accreditation); (c) hold a government-issued suitability card for working with children and youth; (d) have successfully completed Certificate IV in Transport and Logistics (Road Transport – Car Driving Instruction); and (d) have a registered and suitable vehicle for driver training (DTMR, 2013).

Despite mandatory practice periods in numerous licensing programs around the world, much remains unknown regarding exactly what happens during the supervised driving lesson. This dearth of knowledge has important safety implications not only given the exponential crash risk experienced at independent licensure, but also as recent US research has revealed that learner teens commit substantial safety-critical driving errors during on-road driving assessments (Durbin et al., 2014) suggesting that learner training is suboptimal at this time. Recent research has provided some insight into the learner period, however, with 'clarity in communication', in addition to other factors such as amount of instruction, important facets of learner driving instruction (Tronsmoen, 2011). For example, survey research in Queensland found that most learners (91.1%) used the services of a driving instructor (*M* (*SD*) hours = 9.71(11.1), and practiced most at the end of the learner period (54.5%) (Scott-Parker et al., 2011). Learners have also reported engaging in a range of risky driving behaviours during the learner licence phase (e.g., 4.8% reporting handheld mobile phone use, 31.9% reporting driving 10–20 km/h in excess of posted speed limits) – ostensibly during supervised driving – (Scott-Parker et al., 2012), particularly if aged 18–19 years as a learner driver, compared to learners aged 16–17 years (Scott-Parker, Watson, King, & Hyde, 2013). Learners continue to engage in these risky behaviours – and by larger margins – as independently-licensed drivers (Scott-Parker et al., 2012), with risky behaviours reported by young drivers around the world to be similar to their parents (e.g., Lithuania, Strukcinskiene et al., 2014). Australian research has also explored the experiences of parents with the learner stage of the GDL, with particular focus upon compliance with the mandatory element of the logbook (e.g., see Bates et al., 2014). Research from the United States has provided further insight; for example, stronger intentions to remain involved during the lengthy learning-to-drive process was reported by parent/teen dyads in which both parents and teens reported they were mutually-

[1] 'Instruction' refers in this instance to overt direction of a qualified driver to a learner driver regarding the driving task (e.g., operating the vehicle, negotiating traffic, following a pre-defined journey).

[2] 'Supervision' refers in this instance to a qualified driver, seated in the front passenger seat while a learner is seated in the driver's seat, overseeing the driving behaviour of the learner. It is noteworthy that, during supervision, the experienced driver can regulate learner driver behaviour through instruction.