

'The Copper's Nose': A Grounded Theory of a Policing Phenomenon

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Declaration Statement

This thesis is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the preface and specified in the text. It is not substantially the same as any work that has already been submitted, or, is being concurrently submitted, for any degree, diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the preface and specified in the text. It does not exceed the prescribed word limit for the relevant Degree Committee.

Abstract

This thesis explores, defines, and theorises, for the first time, 'The Copper's Nose' (Policing Sixth Sense): a phenomenon observed within policing. Employing Classic Grounded Theory Methodology and utilising primary interview data collected from officers across England and Wales, a substantive theory of the phenomenon is proposed. Integrating biological, psychological, and social dimensions, the resulting theory conceptualises the phenomenon and conducts retroductive analysis to posit the mechanistic and contributory components of its manifestation and development. The theory introduces three core concepts: 'Mediating', 'Updating', and 'Navigating', which are central to understanding the phenomenon's constitution, genesis, and influence. The phenomenon is defined as a context-dependent mediator between an officer and their environment, shaped by biopsychological factors, exposure(s), experience, and learning, and influencing decision-making and behaviour within the policing role. The thesis outlines areas for theoretical development, including the potential to measure and validate aspects of the theory, specifically those concerned with perceptual ability and interoceptive awareness. Future research avenues are proposed, including those relating to officer evaluations of 'risk' and threat detection, as well as recruitment and training strategies aligned with precision policing. The thesis proposes the factors that must be considered when legitimising the use of 'The Copper's Nose' in practice, ensuring its appropriate application alongside practical models, such as the 'National Decision Model'.

In summary, the thesis presents a seminal theory derived from primary data, offering practical insights into the identity and nature of 'The Copper's Nose', and explores how it may be understood, developed, and applied within law enforcement.

Dedication

This thesis is dedicated to the men and women of the emergency services, who tirelessly step forward in the face of uncertainty, threat, and risk to protect others.

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This thesis would not have been possible without the officers who volunteered their time – much of it 'off-duty' – to speak with me and share their insights. I am indebted to you and forever grateful. *You* have created this theory – I am merely the copy editor.

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To my friends and loved ones: Some of you know the content of this thesis as well as I do, and for that, I'm very sorry. I promise not to speak about it for at least a week. You are the ones who ground me, and I aspire to offer you the friendship and love that you show me.

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Abbreviations

BSP: Basic Social Process(es)

BPSP: Basic Psychological Social Process(es)

CGT: Constructivist ('Charmazian') Grounded Theory Methodology

CoP: College of Policing

EGT: Evolved ('Straussian') Grounded Theory Methodology

GT: Grounded Theory

GTM: Classic ('Glaserian') Grounded Theory Methodology

NDM: National Decision Model

TCN: The Copper's Nose

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1. Introduction

"The intellect has little to do on the road to discovery. There comes a leap in consciousness, call it Intuition or what you will, the solution comes to you and you don't know how or why."

— Albert Einstein¹

The inspiration behind this research falls to an inconspicuous comment made by a young police officer directly to the researcher. Looking at his upcoming schedule, he remarked:

"Oh, good, I'm working with Dave. I like working with Dave; his nose is always right."

Curious, I asked what he meant by that. He replied:

"He's just one of those people who you'll know you'll have a good shift with. We'll be driving around, turn into some random road, and he'll just go, 'something's not right here', and then something will happen out of nowhere. Like, Control will radio us to say that one of the houses on that road has just been burgled or something. Or, we will be pursuing someone, and we'll lose them, and Dave would know exactly where to go. He wouldn't plan it, he'd just be like, 'let's go left here'. It wouldn't make any sense to go that way, but he'd find them. He's just got such a good instinct, like a real copper's nose."

And that was the start of *'The Copper's Nose' Project*.

N.B. A Note on Terminology: Some readers may know of 'The Copper's Nose' by the idiom of the 'Policing Sixth Sense'. For all intents and purposes, the terminologies refer to the same phenomenon. The variance in terms appears resultant of differences in geographical and colloquial use. For example, agencies in the United States tend to use the 'Policing Sixth Sense', whereas those in the United Kingdom more commonly use 'The Copper's Nose' (Worrall, 2013). These labels can create confusion. The 'sixth sense' may also appear as a reference in popular culture outside of policing². However, in fields such as biophysics, neurophysiology, and neuropsychology, the 'sixth sense' has been recognised as a measurable biological feature and mechanism – which will be considered herein. Resultantly, these conflation in nomenclature can create complications when attempting to clearly define and demarcate between phenomena. Therefore, even though the 'Policing Sixth Sense' and 'The Copper's Nose' are assumed to label the same phenomenon *within policing*, for clarity this thesis adopts the preferred British lexicon of 'The Copper's Nose'.

1.1 Observing the Phenomenon

Within policing, there exists a colloquialism reflecting a phenomenon: 'The Copper's Nose' (TCN). Through observation, this might be described in layman's terms as an officer's ability to

¹Undocumented/Source not verified.

²E.g. The 1999 film, 'The Sixth Sense'.

sense when 'something doesn't feel right' within the policing context. This capacity appears widely acknowledged across different domains, ranging from legislative proceedings, professional invocation, in popular culture, and in media and news outreach. Despite this broad usage, there exists no formal qualification or quantification of TCN. Observations suggest that the phenomenon may encompass elements of discretionary decision-making, heightened perception, and instinct, but these remain unexamined and poorly understood.

TCN features prominently across operational narratives. For example, police organisations frequently reference TCN in their social media outreach and in policing documentaries³. Horsham Police have referenced TCN as a tool in the detection of criminality (Horsham Police, 2020⁴). Luton's Community Policing Team attributed an officer's arrest to the 'activation' of TCN (Luton Community Policing Team, 2024⁵; Bedfordshire Police, 2024⁶). Staffordshire's Road Harm Prevention Team (2020)⁷ referenced TCN as 'unbeatable', and Darlington Police (2024)⁸ narrated how TCN 'kicked into action' to apprehend a suspect. In

³Not cited herein.

⁴"Identifying a possible drink driver often requires following hunches and looking for subtle tells, using the coppers nose..." – Horsham Police (@Horsham_police). (2020, April 22) [Post]. X. https://x.com/Horsham_police/status/1253084934387961856

⁵"...coppers nose activated ... some further digging showed the vehicle to be on false plates and stolen just over 2 months ago. #1InCustody and vehicle recovered #CoppersNose #CommunityPolicing" – Luton Community Policing Team. (2024, July 15). Facebook. https://www.facebook.com/story.php/?story_fbid=900018242172391&id=100064926692559

⁶"The Nose Knows..." – Bedfordshire Police. (2024, July 15). Facebook. https://www.facebook.com/story.php/?story_fbid=900018242172391&id=100064926692559

⁷"... Cant beat the coppers nose, No Licence & No Insurance. Then decided to argue that we are wasting his time." – Staffs Road Harm Prevention Team (@StaffsRoadHarm). (2020, November 24). [Post]. X. <https://x.com/StaffsRoadHarm/status/1331195725217230850>

⁸"... And it wasn't long before the copper's nose kicked into action as they picked up on a very overwhelming floral smell leading to St Cuthbert's graveyard. With the assistance of the town's CCTV, the officers tracked down a man with two shopping bags full of detergent ... " – Darlington Police. (2024, October 16). Facebook. https://www.facebook.com/story.php?story_fbid=1006488821509136&id=100064440833855

media accounts, TCN is often celebrated as a hallmark of officers' success, where it is referenced as a trait in highly skilled 'thief-takers'⁹ (Haynes, 2021).

Across government proceedings and legal cases, TCN has been included within discourse on professional policing practice. Cornerstone Barristers defended a case against a police organisation who postulated a defence based on TCN (see: Cornerstone Barristers, 2018). In the Report on The Operation in 2006 of the Terrorism Act 2000, Lord Carlile of Berriew, Q.C. stated: "The FBI Behavioral Analysis Unit in the United States has done some useful work in refining what here is sometimes called "copper's nose" into a more analytical technique. Certainly I do not reject the value of intuitive stops by police officers with observational experience. If modern analytical methods can distil something of the operation of quality intuition, and use it for training purposes, that is to the benefit of all." (Carlile, 2007, p. 33). The same reference was included by Anderson (2011) in the 2010 Report. (See also: Justice, 2018; R (Miranda) v Secretary of State for the Home Department, 2016).

Academically, TCN has been widely acknowledged but remains under-researched and critically conflated. In academic workshops, for example, TCN has been included as a guide to best practice, cited by practitioners (see: Hallsworth, 2016; University of Cardiff, 2021¹⁰). TCN has also been included as a comparative measure of assessing new surveillance techniques utilised by law enforcement agencies (see: Lancaster University, 2022¹¹). Similarly, "The Copper's Nose" featured as a chapter title in Ratcliffe's book, *'Evidence-Based Policing: The*

⁹"Sgt Schofield described his team as "thief-takers" with years of experience but added that they often relied on strong instincts. "They arrest a lot of people because they have a passion for policing," he said. "It's just the copper's nose - some people don't like that, but it does exist."" – Haynes, T. (2021, September 22). Police sergeant reveals 'obvious' tells of young criminals on London Underground. *MyLondon*. <https://www.mylondon.news/news/uk-world-news/police-sergeant-reveals-obvious-tells-21646844>

¹⁰"Interview techniques, questioning, body language, signs that they give off, their eyes... There are signs that people will give off but you have to be able to pick up on, or should be able to pick up on... I think the main crux that you (referring to the researcher) perhaps won't see when we ask the questions, is what's going on in the head of the custody sergeant and the copper's nose and that copper that sniffs out a crime, can sniff out an issue. Just that penny drops or the light bulb moment. There's just something not quite right. I'm not happy that this person doesn't have an appropriate adult and should. (CO24-M Interview)". Dehaghani, R. (2021). *Improving the uptake of the appropriate adult safeguard – A recap of the appropriate adult workshop provided by the Cardiff School of Law & Politics*. [Workshop]. University of Cardiff. <https://orca.cardiff.ac.uk/id/eprint/139418/1/Cardiff%20Uni%20AA%20Playbook%20v.8.pdf>

¹¹Maesschalck, S. & May-Chahal, C. (2022). *Police Surveillance in Social Media* [Invited Talk]. Lancaster University. [https://www.research.lancs.ac.uk/portal/en/activities/police-surveillance-in-social-media\(d3e1da0c-9815-4d14-b76d-e662a3eb0f32\).html](https://www.research.lancs.ac.uk/portal/en/activities/police-surveillance-in-social-media(d3e1da0c-9815-4d14-b76d-e662a3eb0f32).html).

Basics' (2023, p. 1), where it is invoked as: "... the lead detective said he had "the highest praise for the officers who went to Younis' flat that day — it was a good old-fashioned police hunch that made them force open the freezer, intuition that something just wasn't right". Intuition — the good old-fashioned police hunch — has been a cornerstone of policing since modern law enforcement began in 1829. It has also been referred to as having a good 'copper's nose'."

Despite its ubiquity, a unifying and grounded definition of TCN is noticeably absent. This critical oversight was cited by Worrall in his 2013 paper, 'The police sixth sense: An observation in search of a theory'. Within it, Worrall acknowledges both the arcane existence of the phenomenon – colloquially known as 'the sixth sense' in the United States – and impresses the need for an underpinning theory. Hindering this aim, however, is a tendency to conflate TCN with other cognitive-behavioural phenomena without demarcating clear boundaries. One such example is conflation with that of 'intuition', which itself lacks a singular universal definition with scholars proposing over 20 different and often contradicting interpretations (see: Abernathy & Hamm, 1995 as cited in Epstein, 2010). Despite the lack of foundation, policing scholars regularly reference the use of 'intuition' in policing and adjacent fields without offering an evidence-based definition (see: Pinizzotto et al., 2004; Wright, 2013). In practice, this results in research which would otherwise prove important being undermined by the absence of a conceptually valid foundation. Wright, for example, examined the decision-making processes in homicide detectives. Referencing the lack of research into intuition, Wright drew upon the works of Hogarth (2001) and Gladwell (2006) to claim that "the mystique surrounding intuition can...be dismissed by viewing it as a form of thinking based on tacit information processing." (Wright, 2013, p. 183). However, this assumption has been contradicted in more recent studies by Lufityanto et al. (2016), who indicate that intuition originates from emotion, rather than experience, and note that non-conscious emotions can bias non-emotional behaviours. Therefore, to equate TCN with intuition without empirical support or clear justification for doing so is to compound uncertainty and ambiguity with further uncertainty and ambiguity. Instead, one could critically argue that the only way to empirically validate TCN and learn to what extent it may present similarly to, the same as, or different from, other cognitive-behavioural phenomena, is to adopt a grounded theory approach to examine and distinguish TCN as a unique phenomenon in its own right.

1.2 Critical Importance

The Copper's Nose (TCN) as a phenomenon has experienced enduring prominence and frequent invocation in policing. However, the lack of an underpinning theoretical framework supported by a valid and grounded (evidence-based) definition represents a significant and critical oversight in our understanding of a phenomenon which may be integral to policing practice. This is problematic, not least owing to the potential impacts on decision-making, situational awareness, discretionary judgement, and the development of the policing skillset.

Without a solid research foundation, TCN remains an ambiguous and subjective construct, vulnerable to inconsistent interpretations, and fragmented without universal application or empirical verification. Elsewhere, studies concerning cognitive processes and resultant behaviours in policing have focused predominantly on procedural justice (Tyler, 2006), or cognitive and emotional profiles under stress (see: Kahneman, 2011). Whilst impactful, studies of this type have neglected the relationship between tacit knowledge, the potential biophysiological underpinnings of such a phenomenon, and the prominence of scientific literature concerning other phenomena which may be related, e.g. the gut-instinct, the sixth sense, intuition, heuristics. To what extent TCN may be related to, the same as, or different from, these other human phenomena is not known without the necessary grounding research being conducted. The absence of definition further restricts efforts to explore potential mechanisms which may elucidate causation of TCN and allow us to understand the extent of impact on policing practice. Unlike established concepts, e.g. procedural fairness or situational crime prevention (see: Clarke, 1995), TCN has no operational model to guide research. Practitioners may often assume an implicit and shared understanding of TCN based on their personal experiences alone which are susceptible to bias. Aligning with research conducted within the field of professional heuristics, these biases can shape the perceived validity of phenomena, including that which may be related to TCN, e.g. instinctual and intuitive judgement (see: Gigerenzer, 2007). Whilst practitioner insight is invaluable in our establishing an understanding of TCN, insights must be balanced with more objective and systematic methods, e.g. large-scale investigation, to avoid the perpetuation of myths or assumptions made at the individual level; themselves often subject to confirmation bias (Nickerson, 1998). Without systematic study focused on the production of a definition and framework which can be tested and applied accordingly, it is impossible (both theoretically and in practice) to disentangle the concept of TCN from other cognitive processes and distortions (e.g. intuition, gut-instinct, sixth sense, heuristics, etc.). Resultantly, any practice related to TCN within policing is undermined and delegitimised by extension.

Ensuring legitimacy of practice is crucial to the policing-by-consent model operational today, particularly as modern policing faces increasing levels of scrutiny regarding transparency of practice and accountability of action (Sunshine & Tyler, 2003). The concept of TCN is particularly relevant to discretionary practice as discretion is considered a core component of policing, allowing officers to adapt in unpredictable situations (see: Lipsky, 1980). However, the application of discretion has been criticised for enabling abuses of power and inconsistencies in the application of law (Chan, 1997; Goldstein, 1963). TCN, as a phenomenon which may impact outcome, is relevant at the heart of this debate. The undefined and opaque nature of TCN directly intersects with these concerns as the gap between the phenomenon in practice, and that which is evidenced in research, is noticeably significant. This creates a critical paradox: whilst TCN exists and may be relied upon in practice, its legitimacy and efficacy cannot be established without a clear understanding of its

constitution, genesis, and application(s). Simply put, we cannot assess that which we do not understand, and we cannot determine legitimacy and efficacy if we do not know what it is that we are scrutinising.

This critical issue is compounded by broader calls to improve consistent and effective practices through evidence-based policing (EBP); which calls for policing practices to be grounded in 'what works' evidence derived from tested methods to improve outcomes (see: Lum & Koper, 2017; Sherman, 1998). However, the adoption of EBP as a policing approach has been met with recalcitrance as documented extensively by e.g. Fleming & Lewis, 2002; Fleming & Rhodes, 2004; Fleming & Wingrove, 2017. EBP has also faced backlash in professional publications where it has been compared directly to TCN. Gallagher's 2018 article, 'Developing a 'copper's nose': The need to empower new officers', critiqued the rise of EBP for inadvertently discouraging the development of 'natural policing instincts' and, specifically, TCN. He perceives of a correlation between an increase in EBP regulatory with a decrease in the formation of 'natural and empowered police officers' as damaging to policing and as contributing to a perceived hesitancy of officers to engage in EBP discourse. Such assertions align with findings which similarly document that officer resistance to EBP practices can be attributed to the cultural shift that officers perceive as constraining their professional judgement, discretion, and diminishing their empowerment to act (Fleming & Lewis, 2002; Fleming & Rhodes, 2004). Whilst EBP has gained traction and demonstrates far-reaching benefits for the professionalisation of policing, it is often criticised for overlooking unrecorded practices, such as the mythical 'Ways and Means Act', which represents deeply embedded aspects of policing culture (see: Reiner, 2010). Moreover, juxtaposing TCN with regulated practice like the Police and Criminal Evidence Act (PACE) 1984 or the Police Reform Act 2002, and inquiry reports into discretionary practice, such as the Pitchford Inquiry (Undercover Policing Inquiry, n.d.), reveals the complexity of integrating subjective phenomena into systematised practice. These tensions – between the structural frameworks guiding operation and the experience-driven elements of policing – highlight some of the challenges of reconciling empirical standards with the practical realities of operational policing. The gap between TCN's existence in practice and the absence of empirical evidence further underscores the need for systematic research into this phenomenon. By systematically researching TCN, we can work towards establishing its identity, strengths and limitations, providing officers with a framework to harness TCN effectively whilst mitigating potential biases and inconsistent or detrimental application. Doing so would also contribute to the broader goal of professionalising and legitimising policing through research-based approaches.

Establishing an understanding of TCN could have profound implications for police practice, training, and professional development. With deployment of the Police Uplift Programme in England and Wales – which sought to contribute 20,000 new officers by March 2023 – the composition of officers, particularly with regard to length of service, has altered considerably

(see: Home Office, 2020-2024; National Police Chiefs' Council, n.d.). If, and indeed to what extent, TCN can be attributed to experience and/or training received¹² becomes an important consideration in light of this compositional shift. If it is established that TCN can be defined and bound in such a way that it enables translation into knowledge sharing, forces may need to consider whether this becomes an embedded part of police training, as opposed to occurring through opaque processes of osmosis. Such application may not only improve skills efficacy but improve measures of accountability and minimise illegitimate use. Aligning with studies concerning professional expertise, tacit knowledge and intuitive practice, research indicates that training of this type is beneficial to the enhancement of decision-making processes and the integration of instinct with analytical reasoning (see: Dreyfus & Dreyfus, 1986; Ericsson et al., 1993).

However, such training implications are not realised without first positing the 'what', as well as the 'how' concerning TCN. Other behavioural and cognitive phenomena such as 'intuition' are often attributed to scenarios, and/or are studied in terms of their effects, without first establishing a clear and unified conceptual definition (see: Epstein, 2010). Similarly, some decision-making models which account for real-life application, such as Klein's Recognition-Primed Decision Model (1998) explain mechanisms that drive such processes but assume an understanding of the knowledge base underpinning such decisions. Separately, research which offers frameworks upon which understanding can be drawn (e.g. Damasio's 1994 Somatic Marker Hypothesis, see: Ch. 5) has not yet been applied to policing contexts. As a result for TCN, the lack of a coherent and grounded 'what' renders any attempt to theorise the 'how' flawed.

Researching TCN is therefore vital to our advancing understanding of critical, opaque, and discretionary practice in policing. The lack of current grounded definition, research foundation, and systematic research that accounts for subjective bias, poses significant challenges to our working towards legitimacy and accountability in policing practice. By addressing this lacuna, we may present an evidence-based framework for understanding otherwise hidden or misunderstood phenomena through which ethical efficacy can be established, and the implications properly accounted for.

1.3 Thesis Structure

This thesis is distinct in its methodological approach, its structure and presentation. Diverging from conventional formats more commonly found in contemporary criminology – which ordinarily focus on theoretical testing – this thesis posits a substantive grounded theory. It adopts a Classic Grounded Theory Methodology – a rarer variant of grounded theory approaches – which substantially influences the presentation format herein. As a result, this

¹²By type, date/time of training, content of training, composition of colleagues and peers, probationary requirements, etc.

thesis intentionally breaks from modern standards, particularly with regard to its structure, which may appear unconventional to some. Notably, it excludes a preliminary literature review owing to the methodology's explicit instructions dissuading such reviews to protect the researcher from developing preconceived hypotheses drawn from the material of others. Instead, a brief observational review is provided to establish the existence of the phenomenon, to recognise the parameters of research, and to suggest where the contribution may sit within the literature.

Demonstrating rigorous adherence to the methodological traditions of Classic Grounded Theory Methodology, this thesis places significant emphasis on the 'Methodology' and 'Methods' chapters. These sections are intentionally extensive to reflect the theoretical foundations of this work, recognising that the validity of the theory posed is intrinsically linked to the robustness of the methodological approach. While these chapters may appear exhaustive to those familiar with theoretical research, their inclusion is deemed essential to ensure clarity and rigour. Thereafter, the chapters are structured and presented according to methodological stipulations, with later chapters being named after emergent core concepts (e.g. 'Mediating', 'Updating', and 'Navigating'), as opposed to the more traditional labels of 'Findings' and 'Discussions'. Commitment to such research traditions emphasises this thesis' dedication to methodological rigour whilst enhancing the original and significant contribution that this thesis makes to the field. Throughout, the thesis is presented in a chronologically linear format.

Chapter Two begins by discussing the methodological approach used herein. It offers a comprehensive account of the paradigms of research and the related frameworks, with a discussion on the importance of establishing positionality, the practice of reflexivity, and the risks of methodological slurring. These sections are reflective of the researcher's commitment to best research practices, particularly those which fall into the qualitative space. Chapter Three introduces methods, highlighting methodological alignment and turning to the practical application of methods used to conduct this thesis. Readers are also provided with a summary of the data collected.

Chapters Four to Seven are dedicated to the emergent theory. After an initial 'Theoretical Summary' is provided, each chapter thereafter reflects an emergent core concept from the data. These chapters include a discussion employing retroductive analysis against theoretically relevant literature to speculate on possible causal or contributory mechanisms that underpin the phenomenon studied. Finally, Chapter Eight considers the practical applications and implications of proposing such a theory and considers future research possibilities.

2. Methodology

2.1 Introduction

This chapter begins by discussing the importance of establishing paradigmatic approach and identifying the researcher's positionality in research. It presents an overview of the research paradigms and their potential disciplinary alignments and reflects on the relationship between paradigms and the spectra of epistemological and ontological reasoning. The importance of establishing a researcher's positionality is discussed, and techniques to limit the impact of such positionality in the form of reflexivity is presented. A positionality statement is included to make clear the stance of the researcher. The chapter then turns to specific methodological approaches, namely that of 'Classic Grounded Theory Methodology' (GTM). Honouring its prototypal status, its origins and philosophical underpinnings are discussed alongside its paradigmatic placement, and how these may align with the researcher's positionality and research aims. The emergence of alternate forms of Grounded Theory Methodology ('Evolved' and 'Constructivist') are considered, allowing the reader to appreciate the researcher's approach to and subsequent choice of methodology. The section closes by heeding warnings against methodological slurring and acknowledging best practice to protect against this. Latterly, the chapter reviews 'Methods'.

Firstly, the research positions itself within the qualitative realm and reflects on the context and adopted methodology to discern suitable methods. A review of potential methods is presented, providing an assessment on their suitability, before justifying the use of semi-structured interviews. The process of sampling and recruitment is discussed, including the necessary ethical considerations, offering a roadmap of the approach(es) taken to secure relevant data. Thereafter, the chapter turns to forms of analysis and the processing of data through which a theory may emerge. The chapter concludes by presenting pre-identified limitations to the research and offers research reflections.

N.B.: It is noted that the terms 'methodology' and 'methods', and 'grounded theory' and 'grounded theory methodology' are often used interchangeably within literature. The research acknowledges that these terms refer to distinct parts of the research process and will therefore be defined for the purpose of clarity. Within this research, 'methodology' concerns the overall research approach, inclusive of paradigmatic framework(s). 'Methods' are referred to as the tools employed to conduct the research, e.g. interviews. 'Grounded Theory Methodology' refers to the methodological approach followed, and 'Grounded Theory' refers to the theory itself (see also: Chun Tie et al., 2019).

2.2 Paradigms and Positionality

This section will explore the concepts and importance of paradigms as research frameworks, and of positionality in research. Providing an overview of the paradigmatic roots of research, and covering the principles of ontological and epistemological positioning, the section

discusses the impact of accurate identification of research approach, positionality, and the practice of reflexivity across the research endeavour. It concludes by providing a researcher positionality statement.

2.2.1 The Importance of Paradigms and Positionality

Research paradigms are foundational frameworks that dictate how research is conceived, conducted, and interpreted. Inseparable from a researcher's perception of reality, a paradigm typically comprises four components: epistemology, ontology, methodology, and axiology (Lincoln & Guba, 1985; Mackenzie & Knipe, 2006). Each paradigm emerged from (ordinarily) opposing philosophical beliefs about the purpose of research, underpinned by stances on the nature of reality (ontology) and the formation and acquisition of knowledge (epistemology) (Grix, 2004). The paradigms – which were officially recognised during the 20th century, inspired by Kuhn's 'Structure of Scientific Revolutions' (1962, 1970) – are distinct from each other, offering specific approaches to validate the production of 'knowledge'. Often aligned with particular disciplines and schools of thought – although not exclusively – the paradigms guide theoretical and practical consistency throughout the research process. Clear demarcation of where a research project sits paradigmatically ensures that the research, as a complete offering, is valid and can be validated externally. In practical terms, each paradigm will guide the choice of methodologies (qualitative, quantitative, mixed) and advise on the methods that ought to be used for data collection and analysis to ensure the validity of the conclusions drawn (Hammersley, 2011). Unidentified or unjustified use of paradigms may lead to research inconsistencies (at best) and research invalidity (at worst). An example regularly referenced and relevant to this thesis is Sutherland's (1940) study of the concept of 'white-collar criminality'. Merton (1945) critiqued the work by highlighting that Sutherland carries presuppositions about what 'crime' is, which act as the foundational logic behind the conclusions being drawn without due acknowledgement.

"...once the concept of crime is clarified to refer to the violation of criminal law and is thus extended to include "white-collar criminality"...violations which are less often reflected in official crime statistics than are lower-class violations – the presumptive high association between low social status and crime may no longer obtain." (Merton, 1945, p. 466)

Since Merton, greater acknowledgement and adherence to paradigmatic structure have been demanded, and this is increasingly becoming a necessity in the production of rigorous academic research, particularly in the qualitative space (see also: Lincoln & Guba, 2000, 2005).

Positionality, as an equally important and interconnected concept to paradigms, refers to a researcher's philosophical stance: their beliefs, and social and cultural perspectives. Applied at the individual level, positionality highlights how the researcher, as a principal component and variable in the research process, fundamentally influences the construction of research,

the approach and decisions taken, and the interpretation and analysis of findings, underpinned by their personal assumptions, biases, and sociocultural standpoint (Grix, 2018; Rowe, 2014; Smith, 1999). Like paradigmatic frameworks, positionality reflects on how the researcher holds assumptions about the origins and nature of reality, as they perceive it to be (ontology), and how they believe knowledge to be formed and gained (epistemology) (Bahari, 2010; Grix, 2018; Sikes, 2004).

In qualitative research, where subjectivity and context are key to ascertaining deeper 'meaning' from data, and where the researcher acts as the principal tool in this process, the explicit identification of the researcher's positionality is crucial to ensure research integrity. Without a clear statement on positionality, the research risks becoming methodologically incoherent, ethically questionable, and analytically flawed, as it may represent foundational misalignments resultant from the researcher's philosophical position if not declared (see also: Holmes, 2020).

An example of paradigmatic and positional alignment may be a researcher who believes reality to be a social construct conducting research under the constructivist paradigm and employing qualitative methods, such as interviews, to maximise the exploration of narratives and subjective meaning from participants. This would be paradigmatically and positionally aligned. If the same researcher designed their research to sit within the positivist paradigm and utilised quantitative methods, such as standardised testing, and subsequently attempted to draw conclusions from the data that would require a greater depth of narrative to be valid, this would present an inherent misalignment. Similarly, those who adopt more realist (or positivist) principles may rely on these quantitative methods, such as randomised control trials, to produce statistical outcomes, as they are more interested in objective outcomes.

In layman's terms, this might be best separated into those who wish to learn what happens (that which can be measured using quantitative data), and those who wish to learn why something happens (that which is best measured using exploratory qualitative techniques). However, it is important not to assign quantitative and qualitative methodologies to specific positionalities based on these anecdotes. Instead, it ought to be highlighted that particular methods – and those which are more readily employed within specific methodological frameworks – may be more or less compatible with a researcher's aims, which are themselves influenced by positionality. To ensure cohesive, consistent, and academically rigorous research, understanding the near-immeasurable impact of one's positionality, and accounting for it, is vital (see also: Lather, 1986).

Where misalignments occur between a researcher's positionality and the paradigm best suited to the research project they wish to conduct, a crucial research practice becomes reflexivity. Reflexivity in research – as a counterpart to positionality – refers to the practice of a researcher's critical reflection and evaluation of their position within and influence over the research process, and strategising ways to question the legitimacy of their position (Cohen et

al., 2011; Probst, 2015). Researchers may wish to reconsider which paradigm best suits their research aims and adopt a change of methods as a result. Alternatively, a researcher may wish to confront their positionality and re-evaluate their stance, accepting a change in fundamental 'truths' about the formation of knowledge.

Crucially, for this to be effective in practice, a researcher must evaluate how their personal beliefs, experiences, biases, and wider positionality may shape the research design, interpretation of findings, and conclusions drawn. Self-awareness and acute examination of the dynamic between the researcher and their research – whether malleable or static in nature – is the only way to ensure academic validity from research conception. Without practising reflexivity, the credibility of research to its endpoint can be questioned. By explicitly recognising the researcher's relationship to the research, and how their positionality affects the entire research process and its outcomes, researchers can ensure that the research is ethically sound, scientifically valid, and methodologically consistent.

In summary, positionality and reflexivity are interrelated foundational pillars of strong academic research. Understanding the fabric of ontological and epistemological positionality and demonstrating clear philosophical consideration ensures consistency, coherence, and validity across the research. Without this, the research design, interpretation of findings, and conclusions drawn may be corrupted by biases, misinterpretations, and flawed assumptions. Practising acute self-awareness and identifying an explicit and transparent position, followed by active reflexivity, ensures that the research produced is sound. As Sikes (2004, p. 19) states:

"It is important for all researchers to spend some time thinking about how they are paradigmatically and philosophically positioned and for them to be aware of how their positioning — and the fundamental assumptions they hold — might influence their research related thinking in practice. This is about being a reflexive and reflective and, therefore, a rigorous researcher who is able to present their findings and interpretations in the confidence that they have thought about, acknowledged and been honest and explicit about their stance and the influence it has had upon their work."

2.2.2 Ontological Positioning

Ontology, from the Latin '*ontologia*' meaning 'being', is a branch of philosophy concerned with the nature of being, the nature of existence, and the nature of reality. Central to its discourse are questions about what entities and fabrics exist, or can claim to exist, with arguably the most well-known discourse concerning the existence of deities. By extension, ontological positioning refers to the stance of a person – and in this case, the researcher – in both their implicit and explicit formulations of the reality, or realities, that surround them (Scotland, 2012; Scott & Usher, 2010).

Knowing the ontological stance of an individual is fundamental in conducting meaningful and valid research, as the beliefs held reflect foundational assumptions about what exists and, therefore, what can be discovered through research. It further illuminates how a researcher may have come to identify a particular phenomenon and determined it worthy of investigation, where such belief formations shape all that may arise from research (Kivunja & Kuyini, 2017).

In the construction of research questions, the aims of the research may focus on uncovering 'objective' truths or exploring and recording subjective experiences. Often, those who favour the former adopt quantitative methods to test hypotheses drawn from realist principles. Those who favour the latter may lean towards qualitative methods based on the belief that the framework of reality is constructed. Subsequently, whilst there is no measure of 'right' or 'wrong' regarding ontological position, it is necessary to identify the position that the researcher carries. This is to ensure that underlying assumptions are understood and appreciated, and that credibility and validity throughout the research design, process, and outcomes can be established.

2.2.3 Epistemological Positioning

If ontology is best explained as our belief(s) on what reality exists, epistemology may be explained as our belief(s) on how we come to understand it. From the Greek, '*epistēmē*', meaning 'knowledge' or 'understanding', and '*logos*', meaning 'study' or 'discourse', epistemological positioning refers to the identification of our beliefs on the nature of knowledge, how it comes to be, and how we subsequently determine its validity (Cooksey & McDonald, 2011; Schwandt, 1997; Slavin, 1984).

Interwoven with ontology, establishing epistemological positioning is equally crucial if a consistent research framework is to be applied. Firstly, it provides clarity on the research perspective through which the researcher approaches the topic of study. Providing this transparency is essential to ensure a shared understanding of the research objectives and the way(s) in which data have been interpreted, leading to specific conclusions. Secondly, as methodological approaches correlate with particular philosophical perspectives, specifying positionality verifies alignment between the research objectives and the choice of methodology, methods, and interpretation of findings: vital for demonstrating coherence and consistency throughout the research process. Thirdly, by demanding recognition of positionality, it encourages active reflexivity and promotes critical contemplation as to how the researcher's assumptions and biases may influence the research and conclusions drawn. Fourthly, discerning epistemological positioning is integral to appreciating the influence of, and connections to, existing discourse and broader scholarly offerings within the subject discipline. It allows for the resulting theoretical and practical contributions to be situated accordingly, limiting erroneous or misinterpreted evaluations of the research by independent audiences.

Finally, and above all, a researcher's epistemological position, along with their ontological position, illuminates how they view the very nature of reality and of knowledge, and how this influences the entire research process – from topic identification, selection of methodology, choice of methods, subsequent analysis, and the drawing of conclusions – shaping the research outputs from the outset. It is therefore obligatory to recognise positionality within the inceptive stages of research to ensure the validity of the research in its entirety.

2.2.4 The Paradigm and Positionality Spectra

The adoption of research paradigms, following the proposal of Kuhn (1962), facilitated the explicit alignment of research with the choice and use of methodologies, methods, analysis, and conclusions therein. Requiring researchers to identify their philosophical assumptions underpinning the research process moved scientific thought into a new realm of coherence and validity (Kuhn, 1962). Placing emphasis on understanding the origins and developments of paradigms supported thinkers in conducting research that navigated and accounted for the influence of their epistemological and ontological positioning.

Research paradigms, and positionality – which each incorporate ontological and epistemological positioning – may be best visualised as spectra¹³, where believing in the existence of an objective reality sits at the westernmost point, and a belief in subjective realities underpinned by individual construction sits at the easternmost point. Fractions of alternate and combination perspectives are placed at intervals throughout. Where research paradigms take shape as philosophically informed frameworks fundamental for informing the aims of the research, positionality identifies the philosophical stance of the researcher, illuminating their assumptions, biases, and approaches to research. Summarised, positionality may be considered as the researcher's individual personal philosophy and the resultant effects on the research process and outcomes. Paradigms may be considered a series of research frameworks reflecting that which can be captured within research based on varying beliefs about the meaning of reality and knowledge (see also: Bourke, 2014; Brown & Dueñas, 2020; Corlett & Mavin, 2018; Khaldi, 2017; Merriam et al., 2001; Smith et al., 2021).

Most research methodologies align with specific positions on the research paradigm and positionality spectra, and methods aligned with each. When researchers adhere to paradigmatic frameworks, certain methodologies are excluded based on the framework itself and the researcher's positionality. In other words, a research project may be flawed if a researcher with a social-constructivist perspective (one who believes behaviours and beliefs are shaped by social construction and interpretation) uses positivist methods (which assume an objective reality), such as statistical analyses. Inherent misalignments could lead to, e.g.

¹³While positionality is well-known for being displayed as a spectrum, research paradigms are not often seen in this way. However, there is broad overlap – particularly at the respective extremes – and there may be merit to viewing both in this way.

drawing broad interpretivist conclusions about social meaning whilst employing research designs and methods that are not suited for understanding subjective social constructs and are fundamentally at odds with this philosophical position. The framework of each paradigm reflects its foundational origins: from positivist thinkers such as John Locke (1689) and Auguste Comte (1830–1842, 1851); through traditional interpretivists, such as Max Weber (1922, 1949) and Edmund Husserl (1913, 1936); the critics of power structures, Karl Marx and the Frankfurt School theorists (Marx & Engels, 1848; Marx, 1867); and pragmatists, such as William James (1907) and John Dewey (1925, 1927) – identifiable by their dismissal of paradigms altogether.

The below ‘Figure 1’ proposes a non-exhaustive spectrum of research paradigms. This spectrum illustrates how paradigmatic frameworks can appear as a continuum, from the objective to the wholly subjective. However, an important note, indicated by the graphic, is that both ‘Pragmatist’ and ‘Critical’ paradigms may fall outside of this spectrum owing to their highly nuanced approach. To appreciate the paradigmatic distinctions further, a deeper exploration of each position can elucidate their characteristics, impacts, and relationship with research.

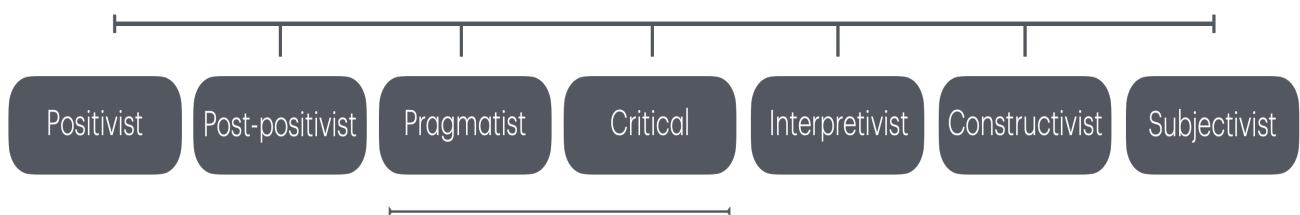


Figure 1: Proposed spectrum of research paradigms

'Positivism' is a research paradigm that holds the belief that reality, and its nature, is fundamentally objective (Comte, 1830–1842). There lies a foundational assumption of this position that 'facts', or knowledge (epistemology), exist independently of metaphysical speculation, such as subjective perception. In other words, that which exists does so without human comprehension. Resultantly, positivist research believes that research ought to be systematic and structured, often relying on methods such as experiments and statistical analyses to produce conclusions. Only that which can be falsified meets the criteria to be declared a scientific theory (Popper, 1934). Valuing causality, generalisability, and objectivity above all, this paradigm's research outputs and methods are typically designed to ensure a quantity of data items from which broader patterns can be discerned. The natural sciences may serve as a good example of this paradigm in action, e.g. biological studies may believe that genetic factors predetermine human behaviour, thereby concluding that human interactions can be predicted based on that which is objectively measurable (see also: Park et al., 2020).

Following its establishment, the 'Positivism' paradigm was soon criticised by scholars for being too rigid in its approach to objectivity. Resultantly, the 'Post-positivist' paradigm emerged to

address these limitations¹⁴. Post-positivists sought to acknowledge that, whilst an objective reality is likely to exist, the ‘knowing’ of that reality occurs through fallible human senses and interpretation; thus, absolute objectivity is unattainable. Instead, research should aim to uncover objective truths through a critical lens where varying perspectives, biases, and the nuances of knowledge construction are accounted for (Phillips & Burbules, 2000). An interesting condition is that, according to Kant, all phenomena, including those which are falsifiable via objective means (such as clinical testing), are bounded by human cognition. That is to say, they can only be experienced through the human faculties that underlie cognition and sensory perception (Kant, 1781, 1783). By extension, post-positivists reject the notion that knowledge carries certainty. Instead, the paradigm stresses the importance of knowledge revision and the practice of reflexivity (Kuhn, 1962).

Where the differences are most stark between paradigms may lie in their respective approaches to verification versus falsifiability. Owing to their commitment to certainty, positivists emphasise the importance of verification and hypothesis confirmation on a universal basis. Conversely, post-positivists posit knowledge (including that derived from research) as provisional and focus their efforts on testing, revising, and reflecting on the knowledge generated, continually practising self-critical analysis (Kuhn, 1962). Their perspective encouraged the introduction of various methods that emphasise the utility of qualitative methodology in gaining a deeper understanding of subjective elements that underlie human phenomena. A commitment to qualitative methodologies and methods is reflected in the belief that context is vitally important in the generation of knowledge, and that conclusions must be postulated as context-dependent (Phillips & Burbules, 2000). Any theory – as post-positivists would rarely claim ‘fact’ – must be considerate of the conditions, settings, and variables that existed at the time the research was generated (Phillips & Burbules, 2000). Achieving objectivity remains an ideal, and research conducted within this paradigm strives towards that goal; however, it occurs alongside a philosophical commitment to reflexivity, review, and critical appraisal (see also: Panhwar et al., 2017; Ryan, 2006).

Further along the proposed spectrum, ‘Pragmatism’ focuses on the idea that the aims of research should be problem-oriented and driven by attaining practical outcomes with implementable solutions. Pragmatists may question the importance of paradigmatic positionality in research, believing that holding a fixed philosophical stance may hinder the ability to solve real-world problems (Dewey, 1931). Due to this nuance – insofar as pragmatists question strict adherence to research paradigms – the pragmatic paradigm could be viewed as lying outside the proposed spectrum, as it neither conforms to objective authority nor subjective authority. Instead, it dismisses the importance of either. By extension, pragmatic research often values methodological plurality, drawing upon various methodologies and methods based on their suitability for exploring the problem at hand (Maarouf, 2019;

¹⁴Considered to be resultant of Popper's critique of positivism (Popper, 1934).

Morgan, 2014). Relevant to this thesis, the College of Policing's 'What Works' approach (Tuffin, 2023) would most closely align with this research paradigm; valuing that which occurs in practice, regardless of whether it is objectively discernible or socially constructed. It is the practical impact that holds utmost significance within research of this kind. Research born from pragmatism can be found in education, medicine, and other professional disciplines, where researchers often combine methods to ascertain richer data (Morgan, 2014). An example could be drawn from policing research, where the measure of a successful intervention may be determined by collecting the personal accounts of offenders (subjectivist) as well as the rates of reoffending (positivist) to produce findings on 'what works' to improve future practice. Despite its practical usefulness, a risk of this paradigm arises when the importance of positionality is disregarded as an unnecessary nuisance in favour of pragmatic logic (Tashakkori & Teddlie, 1998). Claiming a paradigmatic stance to justify the use of any methodology or method without addressing concerns of positionality, research coherence, or active reflection on one's own influence undermines academic rigour (Guba & Lincoln, 2005). Resultantly, negating the influence of a researcher's own knowledge and biases in the conduct of research often raises questions over research validity, if not addressed.

As with the 'Pragmatic' paradigm, the 'Critical' paradigm may also sit outside of the proposed spectrum (Hammersley, 1995; Fay, 1987). Viewing reality in terms of practical impact, the critical position is rooted in critique and transformation. Thinkers such as Karl Marx influenced research of this type, where the dynamics of power are seen as causal in establishing most perceptual realities. Critical frameworks prioritise the theoretical dismantling of societal structures and institutions to inform transformation and produce revolutionary change (Horkheimer, 1972). Adopting the view that power structures pre-exist the formation of perceptual realities, much of the research within this paradigm focuses on the mechanisms of inequality and oppression, e.g. those interested in the political and social sciences (e.g. feminism movement) (see: Collins, 2000; Fraser, 1997). Committed to the ideal that emancipatory purpose ought to motivate research, those working within the critical paradigm will often adopt a dialectical approach to examine conflicting ideologies, where advocacy and activism are considered the lifeblood of research outcomes (Habermas, 1984; Horkheimer, 1972). A focus on generating macro-level change diminishes interest in aligning research to a specific paradigm, instead believing that doing so would overlook the influence that power structures – occurring naturally within the context in which the research is conducted – have over the research process, including adherence to paradigmatic frameworks (see also: Asghar, 2013; Culler, 2010).

If the 'Pragmatic' and 'Critical' paradigms are to be considered separately, the next position on the proposed spectrum is the 'Interpretivist' paradigm. It is worthwhile noting, however, that within the philosophy of research paradigms discourse, there are competing notions that: i) the 'Constructivist' paradigm (to be discussed) is the same as an 'Interpretivist' paradigm (Schwandt, 1994); ii) the paradigms are distinct and co-exist separately, albeit with significant

overlap (Creswell, 2013). However, this discourse is not one that is particularly charged. That is to say, it is noticeable following engagement with the literature that two distinct schools of thought exist, yet there is a sparsity of literature that specifically addresses the divergence. It is proposed within this thesis that whilst heavy overlap with 'Constructivism' occurs, the 'Interpretivist' paradigm does, and should, exist as a distinct paradigm within the proposed spectrum. The interpretivist approach is the first paradigm to consider subjectivity as primary in research. Like all subjectivist paradigms, interpretivist research focuses on meaning and how meaning is 'made' and acquired by individuals (Schutz, 1970; Weber, 1978). A feature of interpretivist research is the focus on context and settings, and how individuals uniquely interpret their reality within those contexts (Creswell, 2013; Yin, 2018). Whilst the role of group and societal influence is considered, importance is firmly placed on the individual, with directionality of influence occurring from oneself outwardly. The paradigm does extend beyond this to acknowledge that many of the external factors (e.g. societal, cultural, including constructs and contexts) have a bidirectional influence on the making and shaping of realities, and that the complex interplay needs to be acknowledged within interpretations (see also: Bryman, 2012; Lather, 2006; Pervin & Mokhtar, 2022; Potrac et al., 2014).

Whilst the 'Constructivist' paradigm shares an interest in the individualisation of realities, it asserts that reality is subjectively determined based on social convention, human interaction, and shared interpretation. Constructivists place greater emphasis on the creation and negotiation of knowledge as it emerges within social groups (Vygotsky, 1978). Exploring 'meaning' is ultimately the central pillar within the paradigm – as with interpretivists – however, it prioritises shared meaning and the influence of group-dependent interaction on changing realities, such as the collective use of language (Piaget, 1970). Constructivists reject arguments valuing an objective reality, and propose that reality is simply constructed through a series of meanings; themselves constructed by groups, individuals, and institutions within distinct contexts (Creswell, 2013). Emphasising the importance of interpreting reality as it appears through the lens of contextual experience, many scholars in this area employ ethnographies or embedded research techniques to understand varying, but equally valid, 'realities' of the world (e.g. von Glaserfeld, 1995). Those interested in the plurality of global communities and cultural studies are most likely to conduct research within the constructivist paradigm. For example, public health sociologists concerned with how a specific health condition affects a particular community, and how those experiences contribute to a condition's identity. Interpretivists, by comparison, would employ qualitative methods to delve deeper into the personal meaning assigned to these individualised experiences (see also: Allen, 1994; Pilarska, 2021).

At the farthest-most point towards subjectivity exists the 'Subjectivist' paradigm. As the name suggests, those aligned with subjectivist frameworks of research believe that no reality exists beyond that which is experienced by each individual, uniquely. Whilst no original proposer of subjectivism is known, many of the works by thinkers such as Hume (1777) and Nietzsche

(1887) are considered inspirational in its development. For subjectivists, ‘truth’ is relative, person-dependent, and cannot be uncovered by objective means (Dilthey, 1976). Highlighting the unique experience of individualised consciousness, research within this paradigm often includes case studies that explore the deepest part of individual narratives. The development of knowledge is not, and cannot, be assessed through frameworks that consider social identity or shared culture as causal. As a paradigm, it is individual-centric, and no individual reality can be compared with that of another as doing so would fail to account for the vast complexity of the internal world (Bleich, 1976; Horwitz, 1994). Within academic disciplines, theologians may conduct research within this paradigmatic framework to e.g. record spiritual awakenings focusing on the highly personalised nature of religious relationships.

Although the paradigms are clearly demarcated, they are not mutually exclusive. It is common and accepted that research will often be dominated by a particular paradigm and may borrow elements or components that reside within other paradigmatic frameworks. For some (Creswell & Plano Clark, 2017; Klein, 2008), any interdisciplinary research can benefit from adopting various paradigmatic techniques and approaches. Integration of this kind facilitates a broader and more practical reflection of the complexity of specific issues under investigation. The critical importance of knowing one’s research paradigm is not in strict adherence to an individual framework, but in being able to demonstrate that the approach and methods employed have been consciously selected and rigorously scrutinised to justify their use. A similar requirement is necessary in establishing a researcher’s positionality (below).

The below ‘Figure 2’ offers a visual display of the ontological-epistemological positionality spectrum.

Figure 2: The ontological-epistemological positionality spectrum (Lawrence, n.d.)



The positionality of a researcher, as earlier referenced, speaks to the philosophical stance of the researcher, including their beliefs and assumptions about the nature of reality and knowledge, and its acquisition. These convictions, by their very nature, alter what is perceptually determined by the researcher as ‘available’ for and worthy of exploration, and how one may choose to undertake exploration (Bourke, 2014). One’s choice and justification of research topic, the methods used, and the lens through which findings are interpreted and analysed can each be aligned with a position on the positionality spectrum (Bourke, 2014; Finlay, 2002). Whilst positionality does not necessarily exclude the use of any research paradigm, it does have discernible effects on how a paradigm may be adopted and justified, contributing to the validity of overall research. For example, where the subject of research

may hold practical familiarity (Merriam et al., 2001), such as researching one's own professional practice, i.e. 'pracademics'. Whilst insider research may demonstrate far-reaching benefits for improving professional practice, the empirical biases that may be held¹⁵ can undermine, weaken, or make flawed the research findings if positionality is not identified at research conception (Finlay, 2002). Some research methodologies and methods have been designed with an emphasis on the context of research that may best suit research of this kind and provide a useful example of how positionality can effect change and innovation across the research process, e.g. 'Narrative Inquiry' (Chase, 2005; Clandinin & Connelly, 2000) and 'Participatory Action Research' (Kindon et al., 2007). Above all, the confluence of practice professionals and researchers presents a need for an emphasised critique of the biases and assumptions held by a researcher, where positionality statements are now considered standard practice (see: Eaton-Williams et al., 2020; Horrocks, 2020; Wolff, 2019, as cited in Wilson et al., 2022). The importance of identifying researcher positionality is underlined in qualitative research, where interpretation underpins analysis and, by extension, determines validity. Resultantly, recognising positionality from the point of research conception and throughout is crucial (see also: Holmes, 2020; Merriam et al., 2001).

Much alignment can be found between the proposed paradigmatic spectrum and the positionality spectrum. From 'Naive Realism' (sometimes referred to as 'Direct Realism') at the objective-most end, through to 'Relativism' at the subjective-most end, positional approaches occur on a linear scale reflecting the variance in belief between absolutes. For naive realists, much like those adopting the positivist paradigm, reality can be perceived in objective terms, and it does not deviate between individuals. There is an inherent simplicity, and reality can be examined free of bias and assumption, particularly if researchers engage in a process of reflexivity (Rosenberg, 2008). Within this belief system, human experience is considered a nuisance variable that does not need to have a measurable effect on what reality is (see: Blaikie, 2007). This position may be critiqued for its dogmatic approach and reluctance to account for the more broadly accepted impacts of variance in individual perception (Guba & Lincoln, 1994). Resultantly, this positionality is rarely held by qualitative researchers, where it is conceded – albeit at different levels – that reality and knowledge-generation are not wholly objective (Smith et al., 1995).

Further along the spectrum falls 'Structural Realism'. For this philosophical position, 'structures', thought of in terms of networks of relations and the interconnection between different scientific entities, are central to understanding reality (French, 2014; Worrall, 1989). The position takes the form of either epistemic structural realism: knowing only the structure of the world and the relationship between independent objects or component entities therein; or ontic structural realism: structures themselves are reality, and the meaning of entities can only be known within the context of the structure (Ladyman, 2007; Ladyman & Ross, 2007; Worrall,

¹⁵Based on lived experience and familiarity with the area(s) of research.

1989). Aligning with disciplinary frameworks, this belief system often underpins works within physics and mathematics (see: Ladyman & Ross, 2007). As with other highly objective positions, structural realism is criticised for lacking empirical support and failing to account for the empirical successes of some scientific theories (Psillos, 2006; Van Fraassen, 2010). It may also be rejected by other realist positions owing to the assertions that structures exist, thereby betraying the realist notion of seeking objective truth, rather than assuming the existence of something prior to investigation (see: Kuhn, 2012; French, 2014; Ladyman, 2007).

Assuming the centre-most point of the spectrum, 'Critical Realism' can be considered a reconciled position between competing objective-subjective extremes. Distinguishing between the real, actual, and empirical domains of knowledge, critical realism concedes that an objective reality, devoid of human perception, is likely to exist, but that reality is also formed through subjective perspectives (Bhaskar, 1975; Danermark et al., 2002). Explaining phenomena in terms of underlying causal mechanisms, compounded by empirical observation, it encourages the use of methodologies that aim to explore all possibilities, including that which is not observable (Archer, 1995; Guba & Lincoln, 2005). Some scholars leverage criticisms of complexity against this position, claiming that, in practice, critical realism can lead to overly complex and ill-defined frameworks. For pragmatic approaches, this can prove problematic owing to their prioritising application and operationalisation within research (Sayer, 1999). Those who adopt a critical realist position are therefore encouraged to contemplate their methodological approach in great depth, ensuring close adherence to the prescribed framework(s).

The first position to refute the idea of an objective reality is 'Bounded Relativism'. This position accepts that reality is relative, but that it is dependent on the context in which it exists, accounting for empirical divergences between social groups who formulate understanding based on the historical, social, and cultural context that surrounds them (Rorty, 1991). Bounded relativists maintain the belief that seeking an objective reality may be valuable if applied against an 'objective criterion', and that validation may be achieved through analysis of empirical evidence or logical deduction (Haraway, 1988). Central to the position's thesis is a belief in the critical engagement of differing and often competing perspectives, for it is here that shared understandings emerge (Nola & Sankey, 2007). However, without clarifying what constitutes an 'objective criterion', critics have often argued that the position is ambiguous, and that omission of criterion standards allows for vague and inconsistent evaluations of validity (Wallerstein, 1991). Critiquing the lack of defined standards, some believe that bounded relativists do not harmonise the competing positions of the objective and subjective perspectives, which can lead to inconsistencies in research and resultant applications (Collins, 1998; Hacking, 1999).

Finally, the most subjective-leaning position¹⁶ is that of 'Relativism'. This position is identified by a commitment to the idea that all knowledge and realities occur as subjective constructs. That is to say, there is no absolute 'truth', and what is established is constructed and validated by individual perception, being contingent entirely upon itself (Geertz, 1973; Rorty, 1989). The position does recognise the possibility of shared group knowledge, where only the more radical forms of subjectivism may also refute this notion (see: Schutz, 1962; von Glasersfeld, 1984). Oftentimes, scholars identifying with this position will find themselves aligning with more specialised forms of relativism, including: cultural (see: Boas, 1938); epistemic (see: Rorty, 1989); moral (see: Harman, 1975); or metaphysical (see: Putnam, 1981). However, their foundational principles in rejecting absolutism, prioritising subjectivity, and allowing for the existence of a plurality of truths, are shared.

2.2.5 Positionality Statement

Savin-Baden and Major (2013) identified three aspects of research where identifying positionality is crucial. Firstly, the researcher's relationship to the subject of investigation. Secondly, the researcher's relationship to the participants. Thirdly, the researcher's relationship to the context and process of research. However, Holmes (2020, p. 3) added a fourth component when considering positionality: "that of time", which highlights the importance of extensive and deep personal contemplation when reaching conclusions concerning positionality. Recognising that positionality may be distilled from both static and fluid aspects of one's identity, a researcher's static characteristics, e.g. biological sex, age, race, ethnic background, and nationality, may contribute to positionality (Holmes, 2020), alongside more fluid characteristics, e.g. political views and life experiences (Chiseri-Strater, 1996).

In homage to Holmes' fourth component, this positionality statement has been written and rewritten over several years, as many of the fluid characteristics stated above have indeed shifted or evolved over the course of research. Regarding static characteristics, despite being older than when the research was conceived, these have remained constant. However, the reality of them was found to have a contributing impact on the relationship to, and with, the development of the fluid characteristics, which has been accounted for in periods of active reflection. Many of these will not be covered in significant depth herein owing to the overly intimate nature of such characteristics; however, their existence and evolution have prompted many deliberative internal conversations throughout the research process.

Foremost, this thesis adopts a critical realist stance, aligning with the researcher's beliefs on reality and knowledge. Sitting at the centre-most point of the positionality research spectrum, critical realism is often aligned with the use of Classic Grounded Theory Methodology – which

¹⁶Albeit some may argue that there are other postmodern and post-structuralist perspectives more radical in their emphasis on subjectivity.

this thesis adopts – owing to their shared view of a stratified reality¹⁷ (Cullen & Brennan, 2021; Kempster, 2014). Likewise, as a researcher, I broadly hold the view that my role is to uncover the genesis and constitution of the phenomenon being explored (TCN) and elucidate its realities. As a researcher, I do not hold, nor have I held, ‘insider’ status within the context of research. That is to say, I have not served as a police officer. This is considered of critical importance to the research and to the critical realist approach. Insiders, particularly when undertaking qualitative research, risk the potential to allow their preconceived hypotheses, resultant from their own experiences, to taint the neutrality and validity of the research (Drake, 2010; Sikes & Potts, 2008; Workman, 2007). Their experiences are likely to result in preconceived notions¹⁸ and may lead to designing, conducting, and analysing phenomena in ways that align with their personal experiences and beliefs (confirmation bias). This may prove useful in studies concerning the effectiveness of an intervention, such as those explored in medicine or other professional practices; however, when producing a substantive theory, it is essential that the theory emerges impartially, and a lack of professional distance may taint the organic development of theory (see: Charmaz, 2006; Finlay, 2002; Guba & Lincoln, 2005; Hammersley & Atkinson, 2007; Hesse-Biber, 2010; Lather, 2006; Merriam & Tisdell, 2015). Possessing some knowledge of the context, however, may help in designing practical elements of research (Creswell & Poth, 2016). Finlay (2002) highlights that some familiarity with the context of study and participants may also ensure the appropriate level of critical evaluation to facilitate a more nuanced understanding of the subject matter without being compromised by an insider perspective. Furthermore, demonstrating an appreciation of the environment of operation, including its challenges, can assist in establishing necessary rapport when conducting qualitative research (Sikes, 2004; Smith et al., 1995; Spradley, 1979). Understanding the social, cultural, and physical contexts also assists the researcher in deciphering sensitivities which may otherwise affect research dynamics (Savin-Baden et al., 2008; Savin-Baden & Major, 2013). It is therefore reasonable to consider that I hold familiarity with the context of study, having previously held employment within a policing organisation (outside of a force) and familial connections to operational police officers. These personal and professional histories contribute to my wielding a critical understanding of the operational parameters and challenges within policing, whilst being able to maintain a greater level of objectivity and distance when theorising the phenomenon.

Concerning methodology, this research explores the phenomenon of ‘The Copper’s Nose’ (TCN) and aims to establish a seminal substantive theory. To date, the phenomenon has not been documented in research, objectively or otherwise. In the first instance, collation of empirical evidence is required to form a conceptual understanding and emergent theory.

¹⁷Augmenting interconnected domains: empirical, actual, and real.

¹⁸Often subconsciously.

Resultantly, Classic Grounded Theory Methodology is adopted, and a comprehensive discussion concerning methodology will follow (see: 2.3).

Grounded Theory Methodology (GTM) has been the subject of critique regarding its ability to maintain objectivity. Research adopting the 'Classic' approach – as this thesis does – aligns with the belief that data assumes primacy, and it is the responsibility of the researcher to practise neutrality throughout. However, most contemporary scholars accept that absolute objectivity¹⁹ cannot be achieved, particularly when employing qualitative methods. All forms of GTM allow for a duality of approach, accepting that objective realities may exist and our understanding of them is mediated, to varying degrees, through subjective experiences underpinned by context (Bryant & Charmaz, 2010). As Classic Grounded Theory Methodology balances the prospect of an objective reality with the interpretation of empirical data, any research utilising this methodology could be classed within the post-positivist paradigm (Bryant & Charmaz, 2010). However, Glaser – the founding father of GTM – asserts that flexibility should take priority over adherence to rigid (and potentially limiting) paradigmatic approaches and structures. The value of GTM, Glaser argues, is that it alleviates the need to bind to a specific research paradigm. By demonstrating theoretical sensitivity and distinguishing between the 'type' of theory being established (substantive or formal), GTM can hold paradigmatic plurality (see: Glaser, 1998, 2003, 2004; Glaser & Strauss, 1967). Paradigmatic plurality is central to GTM's commitment to maintaining flexibility in theoretical development. Owing to its use of GTM, this research prioritises the post-positivist paradigm framework but will remain open to other paradigmatic approaches as the research evolves.

2.3 Methodology

This section discusses the process of selecting a methodology aligned with the pre-identified paradigmatic approach and research positionality. By exploring the suitability, benefits, and drawbacks of various methodologies, the thesis ultimately adopts Classic Grounded Theory Methodology (GTM) and establishes the 'Research Objectives' accordingly (2.3.4).

2.3.1 Selecting the Methodology

Recognising the absence of an empirical theory defining 'The Copper's Nose' (TCN) – including its defining characteristics and boundaries – this thesis demanded an exploratory research approach. Owing to the paucity of literature and theoretical understanding that existed, and recognising the need to explore complex human phenomena in depth, qualitative approaches were deemed most appropriate (Pope & Mays, 1995). Unlike quantitative approaches, which typically concern measures of pre-defined hypotheses and emphasise fixed design approaches, qualitative research prioritises methods which reveal layers of nuance and complexity, particularly those relating to human behaviour. Since TCN lacked a formal identity, the inherent flexibility and depth that qualitative approaches embody allow for

¹⁹Defined herein as that which can be established independently of mind.

amendments and adaptations which may be necessary as data emerge and insights shift the focus of exploration (Denzin & Lincoln, 2018). Consequently, qualitative methodologies that maximised exploration offered the most appropriate prospective methodologies to allow for the discovery of the nature and identity of the phenomenon, and its component variables, from which future studies that may include quantitative testing could be applied (see: Bryman, 2012; Creswell, 2013; Patton, 2014).

Importantly, this research did not hold a preconceived theoretical hypothesis. As a result, theory-driven frameworks, which are best utilised when hypothesis-testing, were discounted, including Deductive Thematic Analysis (Braun & Clarke, 2006); Framework Analysis (Gale et al., 2013); Directed Content Analysis (Hsieh & Shannon, 2005); and Case Studies (Yin, 2018). Of qualitative approaches that were not discounted, one defined by its avoidance of a predetermined theory or hypothesis is that of Grounded Theory Methodology. As described by Burns et al. (2022, para. 5):

“The goal of grounded theory is to develop an explanatory theoretical representation of human behaviour within a social context that is grounded in data from participants.” (Creswell & Creswell, 2018; Glaser & Strauss, 1967; Keane, 2015; Wuest, 2012, cited in Burns et al., 2022).

Grounded Theory Methodology, with its emphasis on theoretical development from primary data, was ultimately selected as the most suitable methodological approach for this research. This chapter introduces GTM in more depth and discusses the methodological foundations of this research.

2.3.2 Grounded Theory Methodology

Grounded Theory Methodology (GTM)²⁰ emerged through the works of Barney Glaser and Anselm Strauss in response to their identifying a lacuna in research methodologies. During their 1965 study, ‘Awareness of Dying’, the pair noted that, for research concerned with theoretical development – as was the case for them – there existed no established methodology to guide practice. This resulted in their developing GTM. As Glaser (2016) highlighted, the pair did not invent ‘Grounded Theory’, and a plethora of studies pre-exist GTM that exemplify forms of grounded theory (Glaser & Strauss, 1967). Earlier grounded theories can be traced to Cooley (1864–1929) and Mead (1863–1931). Born from a desire to lessen the polarity of psychology (psychologism) and sociology (sociologism) – the former works sought to reduce behaviour to psychological or neural processes, and the latter to a system of societal norms (Goulding, 1999) – Glaser and Strauss’ work merely represented seminal use

²⁰‘Grounded Theory Methodology’ and ‘Grounded Theory’ are often used interchangeably and substitutionally. As addressed by Niasse (2023), Grounded Theory (GT) is that which may be produced resultant of using Grounded Theory Methodology (GTM).

of the methodology (GTM) characterised by the inclusion of practical guidelines to close the gap between theory and method (Glaser, 2016; Niasse, 2023).

The purpose of GTM remains, as the name reflects, to facilitate the production of theory. However, what a grounded theory (GT) is requires clarification, and is not to be confused with other self-labelled ‘theories’ often emergent from ‘logico-deductive’ (or ‘hypothetico-deductive’) processes (Glaser & Strauss, 1967, p. 5). To elaborate, Glaser and Strauss took umbrage with the regularity with which scholars assessed or applied ‘theories’ independently of the context and data from which the theory was created. They criticised scholars for using ‘generalised illusionary examples’, such as those based on one’s own ‘happenstance, fantasy, dream life, common sense, or conjecture’, and claiming these inferences as evidence (Glaser & Strauss, 1967, p. 6). This form of logico-deductive practice was prominent amongst scholars who appeared content with theory-verification, as opposed to theory-generation, and to merely have their work ‘tested and only slightly modified, rather than replaced’ (Glaser & Strauss, 1967, p. 17). The pair argued that true theory – relevant to any sociological or human context – cannot exist independently of the data used to generate it, nor without data. Theoretically sound examples that Glaser and Strauss referenced were ‘Durkheim’s Theory of Suicide’ and ‘Weber’s Theory of Bureaucracy’. These were considered removed from the constraints faced by logically deduced theories, which could be dismantled owing to their foundation in ungrounded assumptions (Glaser & Strauss, 1967, p. 3).

“Some theories of our predecessors, because of their lack of grounding in data, do not fit, or do not work, or are not sufficiently understandable to be used and are therefore useless in research, theoretical advance and practical application.” (Glaser & Strauss, 1967, p. 11)

The theme of practical innovation is one that carries across the foundational principles of GTM, where theory generation is intimately tied to the context from which it was generated (Glaser & Strauss, 1967). In GTM, theory can take two forms: ‘Substantive’ and ‘Formal’, each created from a process of comparative analysis (Glaser & Strauss, 1967). It is this process that is pivotal in producing a grounded theory.

“Our strategy...puts high emphasis on theory as a process; that is, theory as an ever-developing entity, not as a perfected product.” (Glaser & Strauss, 1967, p. 32)

Both well-codified propositions rooted in data, as well as ongoing theoretical discourse identifying related conceptual categories and their properties, are considered valid presentations of grounded theory (Glaser & Strauss, 1967). That which can be labelled ‘substantive theory’ – which this research generates – broadly relates to areas of contextual empirical inquiry that are unique to a particular real-world application. Examples might include how practitioners handle stress in a hospital setting; how directives are processed within an organisation; or how educators formulate the concept of learning in the classroom, etc. That which is considered ‘formal theory’ refers to broader macro-concepts, including those which

can be applied in universal, multiple, or non-selective settings. Examples might include postulating broad definitions of stigma, deviancy, or authority (Glaser & Strauss, 1967). Where uncertainty regarding the type of theory (substantive, formal) occurs, questions of generality and application can be asked to determine which form of theory exists: formal being near-universal; substantive being context-dependent. However, it is noted that all formal theories are likely to have been developed as substantive theories, which is considered a necessary 'step' in theoretical development. It is possible, therefore, for theories to sit between the two forms, especially during periods of development. However, the researcher must be clear about the status of their theory – even if determined as being at a midpoint – as this is likely to affect analysis (Glaser & Strauss, 1967). It is also possible for theory to cross into more formal realms as the theoretical analysis is conducted and pre-existing theories are related and applied to the emergent concept(s). Understanding the types of theory is necessary to practising academically rigorous GTM. For formal theory to hold, the data collected, and theory generated must reflect broader universal settings to ensure that the theory is valid at this level. For substantive theory, the theory must be generated from contextual data and be applied to the context being studied without deviation outside of it, where doing so may corrupt theoretical application. Similarly, a formal theory, or the components of it, cannot be applied to a specific substantive area and deemed theoretically sound *ipso facto* without collecting relevant contextual data to validate proposed applications.

Generating either type of theory requires scrupulous adherence to methodological processes. Unlike most research methodologies that demand a literature review to identify and position the topic being explored, a near-unique and central pillar of GTM is the absence of a literature review prior to data collection and analysis. Glaser and Strauss explicitly instruct:

“An effective strategy is, at first, literally to ignore the literature of theory and fact on the area under study, in order to assure that the emergence of categories will not be contaminated by concepts more suited to different areas. Similarities and convergences with the literature can be established after the analytic core of categories has emerged.” (Glaser & Strauss, 1967, p. 37).

Furthermore, it is believed that the specific area being studied benefits from being selected based on a deficiency in the researcher's a posteriori knowledge of the topic or, at the very least, a lack of theoretical contemplation.

“But he can (and we believe should) also study an area without any preconceived theory that dictates, prior to the research, “relevancies” in concepts and hypothesis.” (Glaser & Strauss, 1967, p. 33).

A substantive theory must be established as a direct result of the data accumulated, only after which other theories or relevant literature may be considered for explanatory or causal purposes to further the substantive theory. The risk, if not conducted in this way, is that the

substantive theory is invalid. Simply put, if a substantive theory already exists within a particular context, then any substantive theory generated is merely a reformulation (Glaser & Strauss, 1967). If generating a seminal substantive theory, and a formal theory exists with which the researcher is overly familiar, this may inadvertently corrupt the generation of a substantive theory and result in a 'forcing' of the data. Furthermore, researchers may ignore organic emergent concepts or hypotheses owing to a pre-existing familiarity bias with competing or adjacent theories. In essence, significant analytical and theoretical weakening occurs.

Overarching the forms of grounded theory are the "jobs" or purpose of a theory, which were set out as:

"1) to enable prediction and explanation of behaviour; 2) to be useful in theoretical advance...; 3) to be usable in practical applications – prediction and explanation should be able to give the practitioner understanding and some control of situations; 4) to provide a perspective on behaviour – a stance to be taken toward data; and 5) to guide and provide a style for research on particular areas of behaviour" (Glaser & Strauss, 1967, p. 3).

Practically, a grounded theory ought to comprise four key components: relatability (context); explanation; applicability; and modifiability (Glaser, 1978, 1992). Expanded, a theory must intimately relate to the data from which it has been derived, establishing relatability with the relevant context – in this case, policing – to be considered substantive. The theory must explain the main themes and/or concerns arising from the data, and how these themes may have an impact. The theory must be applicable and relevant to the context; it cannot simply be derived from the context. Lastly, any theory proposed must remain open to amendment and development.

The feature of adjustment is a key principle in GTM to facilitate changes in context and application, allowing development from substantive to formal theory (Glaser, 1978, 1992). These instructions are necessary for the purpose of achieving concept verification. For GTM, it is accepted that 'evidence' (that which exists within a particular context and situation, including all components of it) is ordinarily inimitable in qualitative research. However, by developing concepts that are grounded within the evidence base (bounded by context or setting), concepts remain valid when the evidence base is unavailable and/or presents differently in replication studies (Glaser & Strauss, 1967). An example is that of 'social loss'. As a theoretical category within Glaser and Strauss' data, they impressed that evidence of social loss could be generated, but that the phenomenon may present differently in different settings (e.g. a different hospital or ward). Despite this, there remained certainty that the concept of social loss was a 'relevant theoretical abstraction about what is going on in the area studied' (Glaser & Strauss, 1967, p. 23).

Concerning the phenomenon explored herein, GTM's evidence-based approach to theoretical emergence is complementary to modern approaches to best practice in policing. Following the seminal work of Sherman (1998), which took inspiration from the medical field, evidence-based policing has grown in popularity as the model of best practice. Resultantly, many operational practices that are without an evidence base may find themselves being under-utilised or dismissed (see: Fleming & Rhodes, 2018; Gallagher, 2018). Using an evidence-based methodological approach to generate a theory (e.g. GTM) ensures that the work is in keeping with the policing context, further justifying its use.

2.3.2.1 Contemporary Debate on 'Types' of Grounded Theory Methodology

When proposed, GTM stipulated an allowance for varying 'form(s) in which *theory* is presented' (Glaser & Strauss, 1967). However, GTM as a methodology has been the subject of contestation amongst scholars. Despite the seminal works occurring in partnership, Glaser and Strauss later deviated in their methodological approach, marked by the release of Strauss' lone authored '*Qualitative Analysis for Social Scientists*' (1987), and cemented by Strauss' joining with Corbin to release '*Basics of Qualitative Research: Grounded Theory Procedures and Techniques*' (1990)²¹. In the latter publication, distinct methodological disagreements emerged between the newly proposed 'Evolved' (or 'Straussian') approach to GTM, and the now-considered 'Classic' (or 'Glaserian') approach. The methodology now holds three principal forms: 'Classic'²², referred to herein as 'Grounded Theory Methodology' (GTM) to reflect its prototypical status; 'Evolved'²³ (EGT); and 'Constructivist'²⁴(CGT). These deviations are born from disagreements about what ought to be the underlying and rudimentary philosophical principles of the methodology, and with which paradigm the methodology aligns. These differences go beyond conceptual understanding of the methodology into the practical 'must' and 'must not's' that Glaser believed key to the successful joining of theory with method (Glaser, 2016).

The prime essence of GTM is a theory's emergence from data, with the researcher acting as a neutral tool. Resultantly, it aligns with central-objective paradigmatic frameworks; albeit Glaser emphasised that GTM remains paradigmatically open (1978, 1998). Researchers undertaking GTM are expected to maintain objectivity wherever possible, actively working to dissociate themselves from that which could influence or bias their interpretation of data. This underpins the advisement to withhold from conducting a literature review prior to data collection and analysis for fear of corrupting theoretical development. GTM takes the view that familiarisation with other postulations or associative concepts only serves to influence and bias the

²¹See also: Ralph, Birks, & Chapman (2015)

²²Also known as 'Glaserian', 'Traditional', and 'Original'.

²³Also known as 'Straussian'.

²⁴Also known as 'Charmazian'.

researcher's beliefs and does not align with the foundational principles of GTM. The researcher is tasked with focusing only on the emergent patterns within the data and demonstrating a commitment to the inductive process through which 'true' theory is discovered (Glaser, 1992; Glaser & Strauss, 1967).

Comparatively, and at the heart of the methodological disagreement that emerged, EGT believes that the researcher holds an active role in the discovery and formation of theory (Strauss & Corbin, 1990, 1998). EGT maintains that the researcher is tasked with uncovering pre-existing patterns in data but believes that which patterns are uncovered are, to a measurable extent, determined by researcher bias (Strauss & Corbin, 1990, 1998). For this reason, EGT does not prevent researchers from engaging in a literature review prior to data collection or analysis, instead considering it part of a guiding framework. Both GTM and EGT share in their 'open coding' process to focus on all emergent possibilities from within the data, however, they deviate thereafter (Glaser, 1992). The main criticism levelled against EGT is that after open coding, researchers are then required to carry out 'axial coding', which demands the application of a coding framework to the data (Kendall, 1999; Strauss & Corbin, 1998). For Glaser (1992, 1998), the spirit of GTM is in being guided by the data alone, revising and reformulating the theory based on conceptual emergence. For EGT, the data is manipulated to fit within categories and frameworks (Strauss & Corbin, 1998). The two approaches, distinct in their nature, continue to experience criticism from scholars, many of whom will resonate with one specific approach. It ought not to be said that one approach is 'better' than the other; simply that they hold competing paradigmatic differences that will prove a better fit for particular researchers and research.

Deviating further, Constructivist Grounded Theory Methodology (CGT), devised by Kathy Charmaz (2006), posits that the researcher not only plays an active role but is the co-creator of meaning: the very thing being explored within the data. The notion that a researcher can practise neutrality, or strive to achieve it, is flawed, according to CGT. Instead, embracing the constant interactivity between research and researcher – the researcher becoming a data point in their own right – is an irremovable component of grounded theory (Charmaz, 2006, 2014). Charmaz's amended approach was established as:

"Constructivism assumes the relativism of multiple social realities, recognises the mutual creation of knowledge by the viewer and the viewed, and aims towards an interpretive understanding of subjects' meanings" (Charmaz, 2000, p. 510).

For social scientists, many of whom favour constructivist paradigms and hold subjective positionality, Charmaz's approach proves popular. Charmaz places the notion of subjective voice above all else, creating outcomes that reflect multiple realities (2006). Critically, however, Glaser (2002) is clear that the foundational principle of GTM is to conceptualise a theory from data; not to analyse the narratives themselves. The testimony of participants ought not to be considered mere descriptions or interpretations, but as conceptual revelations

that can explain phenomena theoretically (Glaser, 2002; Glaser & Strauss, 1967). Approaches that prioritise evaluation of individual narratives to report on isolated lived experiences are more suited to narrative analysis or phenomenological studies, it is argued. The foundational divergences between approaches are evident when considering their underpinning philosophical beliefs concerning researcher neutrality. For Glaser, researchers are not objective agents and do hold biases; however, these biases ought to be considered a variable in research which, through rigorous academic practice (such as practising reflexivity) and stalwart commitment to the methodology, can be accounted for (Glaser, 1998, 2002).

Comparing the approaches, a necessary question becomes how far a methodological revision can deviate from the original methodology before it presents as an entirely different entity (Bryant, 2021). For some, including Glaser, this question is pivotal. In a response to Strauss and Corbin's 1990 work, Glaser systematically rebutted proposed amendments to GTM and requested that Strauss refrain from using the term 'grounded theory' in any subsequent works on the topic (Glaser, 1992). McCallin (2003) asserts that the principal differences between the types of grounded theory methodology are a matter of explication. Where Glaser's approach retains flexibility, allowing for a theory to emerge as a creative and natural process (1978, 1998), Strauss and Corbin's approach provides more prescriptive frameworks of instruction (1990, 1998). Reflecting earlier discussion concerning positionality, the differences between Classic Grounded Theory Methodology and later adaptations may be the result of ontological and epistemological disagreements. Believing that research ought to maintain a neutral position in the discovery of a theory, GTM aligns with a critical realist position as a 'general method', which Glaser & Holton contend can be applied to various paradigmatic frameworks (2005). Conversely, the latter approaches proposed by Strauss and Charmaz are each more subjectivist in their approach (1990, 1998) (see also: Breckenridge, 2010; Charmaz, 2014; Holton, 2009).

2.3.2.2 Methods in Grounded Theory Methodology

Noted for its flexible approach in prioritising theoretical development from available data, GTM does not prescribe or instruct the use of any particular research method. Instead, GTM allows for the open use of data collection methods, taking the form of either a single form of data collection or adopting method plurality (mixed methods). Data collection methods can be amended or adapted as the emergent theory requires (theoretical sampling) until theoretical saturation has been reached. The concurrent use of memo-writing, constant comparative analysis, the development of theoretical sensitivity, and practising reflexivity ensures that data retains primacy in determining methods. The guiding principle is a commitment to theoretical emergence and development, where refinement and revision of methods is accepted when led by the data (see: Glaser, 1978, 1992; Glaser & Strauss, 1967). Further details about the choice of methods, data collection, and sampling will be presented in forthcoming chapters.

2.3.2.3 Summary

Classic Grounded Theory Methodology (GTM) is selected as the methodological approach as it prioritises the emergence of a theory without the formation of a predetermined hypothesis. GTM's iterative and cyclical process of data collection, analysis, and emergence enables flexibility throughout the research process, allowing methods to evolve concurrently. Utilising open coding, in-depth reflection, and review, patterns and insights are born exclusively from the data, providing an evidence-based and comparative approach to theoretical emergence. The sampling method proves advantageous for this research, allowing the return to or amendment of sample groups and instruments as theoretical emergence demands, to ensure nuances are captured in full. Highlighting the importance of context in developing a substantive theory, any deviations and consistencies across the data are thoroughly analysed within the context in which they are bound, creating a strong foundation for theoretical development. Resultantly, this thesis adopts a Classic ('Glaserian') Grounded Theory Methodology to establish a substantive grounded theory. A succinct comparison of the forms of grounded theory methodology is presented below (Figure 3), courtesy of Cullen and Brennan (2021).

TABLE 5: APPROACHES TO GROUNDED THEORY: GLASER (1978 AND 1992) VERSUS CORBIN AND STRAUSS (2015)

Issue	Glaser (1978, 1992a, 1992b)	Corbin & Strauss (2015)
<i>Philosophical orientation</i>		
• J Paradigm	• J Post positivist	• J Constructivist
• J Ontology	• J Critical realism	• J Relativist
• J Epistemology	• J Realist	• J Contextualist
<i>Definition of grounded theory</i>	• J Discovery of theory from data	• J Theoretical constructs derived from qualitative analysis of data
<i>Neutrality/impartiality of researcher</i>	• J Critical to the process	• J Natural for researchers to bring personal experiences into the research process. This experience will sensitise researchers to nuances in the data
<i>Identification of research problem/questions</i>	• J Focus on a substantive area of interest rather than a specific research problem/question	• J Begin research with a clear research problem and question(s)
<i>Review of prior literature</i>	• J Obscures researchers' views of the substantive area. Researchers should not use prior literature to generate a research problem. • J Critically, however, Glaser (1978) asserts the importance of extant theory in sensitising researchers to the conceptual significance of emerging concepts and categories. In this way, extant theory acts as another informant.	• J Researchers should not avoid the prior literature but it does not need to be a full review
<i>Preconceived ideas/concepts</i>	• J Obscures researchers' view of the substantive area	• J As researchers identify concepts in and constructed from data, the preference is to have no pre-identified concepts. However, researchers may bring certain concepts into the field from a review of the literature and/or researchers' professional experience, which might be useful for initial interviews. Researchers need to be careful not to force the concepts on the data
<i>Use of analytical techniques</i>	• J Unstructured	• J Structured and systematic coding process

Figure 3: 'APPROACHES TO GROUNDED THEORY: GLASER (1978 AND 1992) VERSUS CORBIN AND STRAUSS (2015)' (Cullen & Brennan, 2021, p. 9)

Despite this thesis adopting 'Classic' GTM, a statement taken from Strauss and Corbin (1990) is appropriate to describe the methodology chosen in reflection of the purpose of research herein:

“A grounded theory is...inductively derived from the study of the phenomenon it represents. (It) is discovered, developed, and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon. ...One does not begin with a theory, then prove it. Rather, one begins with an area of study and what is relevant to that area is allowed to emerge.” (p. 23)

Reflections on use of this methodology are offered in Ch. 3.5.

2.3.3 Methodological Slurring

A recurring criticism of qualitative methodologies is that they lack the rigour and replicability otherwise afforded in quantitative methodologies (see: Hammersley, 2011; Silverman, 2013). Where quantitative methodologies might prioritise questions addressing what is happening, qualitative methodologies typically prioritise why it is happening. Resultantly, qualitative methodologies seek depth of narrative, intrinsically tied to the context and source (participants) from which the findings are drawn. Compounded by the subjectivity associated with both the data itself and subsequent interpretation, the ability to replicate findings is often impeded (Hammersley, 2011; Silverman, 2013).

Reinforcements, such as establishing explicit positionality and ensuring data saturation is reached – itself a form of replication confirmation – protect against these limitations; however, other issues can persist. In addition to problems arising from a lack of positionality identification (Holmes, 2020; Wilson et al., 2022) and failures to practise active reflexivity throughout the research process (Bright et al., 2024; Yip, 2024), a persistent criticism faced by researchers in both qualitative and quantitative spheres is that of methodological slurring (Baker et al., 1992; Suddaby, 2006).

Also referred to as ‘methodological muddling’ (Wilson & Hutchinson, 1996), methodological slurring refers to a failure to adhere to methodological stipulations and directives. Oftentimes, practices belonging to distinctly different methodologies are confused or combined, leading to inappropriate application (Morse, 1990). This results in unclear, imprecise, and inappropriately conflated approaches. Such issues often arise from a failure to properly consider positionality (see: Holmes, 2020). Methodological slurring can demonstrate poor research practices, raising doubt over the standard of research conducted. At worst, it can result in unreliable and invalid conclusions, rendering the research invalid. Unfortunately, the latter is woefully common, despite seldom being recognised. For this reason, research planning ought to consider the theoretical and practical boundaries of each approach and commit to constant critical appraisal.

After a period of reflection and acknowledgment of the positionality held, it was determined that 'Classic Grounded Theory Methodology' would be adopted herein. This distinct methodology is amongst the most in-depth qualitative approaches, built with the intention of conducting the most rigorous exploration into complex human experiences and phenomena. However, as Cutcliffe (2004) noted, researchers rarely address the various forms of emergent grounded theory methodology to reach an informed decision, often combining approaches without regard for the inherent incompatibilities and disagreements between them. This complicates matters for inexperienced and junior researchers, who may adopt a generic or ill-considered combinational form of 'grounded theory methodology' without any comprehension of the flaws in their approach (Breckenridge & Jones, 2009).

Resultantly, this thesis prioritises methodological rigour and will adopt strict adherence to GTM and its stipulations, ensuring that practices are not deviated from.

2.3.4 Research Objectives

The research was categorised as exploratory in nature. It was approached without predetermined hypothesis concerning the constitution, genesis, or application(s) of 'The Copper's Nose'. For these reasons, the research objectives were broad and inherently flexible. The objectives can be stated as:

- i) Establish a definition of 'The Copper's Nose' (TCN)
- ii) Understanding the presentations and manifestations of 'The Copper's Nose' (TCN)
- iii) Propose potential retroductive explanations for the formation, development, and presentation of 'The Copper's Nose' (TCN)

3. Methods

This chapter will review the choice of methods based on the methodological approach adopted. This chapter discusses available methods for data collection and sampling, methodological recommendations concerning approaches to coding and analysis, effective management of data, and includes a discussion on ethical research practice. The chapter closes by presenting an overview of the data collected and the limitations of study.

3.1 Selecting the Method(s)

When designing this research, significant attention was given to the selection of methods. As GTM does not prohibit or prescribe the use of any particular method, flexibility was afforded to select the most suitable method for data collection. Owing to the research's focus on theorising phenomenological experience using an exploratory approach – including feelings, thoughts, and visceral occurrences – qualitative approaches were prioritised to ensure depth of data. Instrumental methods that most readily facilitated the collation of complex narratives and flexibility (in both the overall approach and adjustment to emergent findings) were prioritised.

Some instruments were discounted at an early stage, such as questionnaires, owing to potential limitations identified. For example, participants may not provide the detail required to theorise, questions may be misunderstood, or answers incomplete. The opportunity for clarification or further discussion is reduced, potentially leading to ambiguity and/or impacting the richness of the data. Crucially, questionnaires and surveys lack the active discussion and depth of discourse that may be present if a researcher actively encourages participants to reveal deeper, hidden insights (see: Bartram, 2019; Young, 2015). Resultantly, these limitations rendered questionnaires an ineffective instrument for the purpose of establishing a substantive grounded theory. In dismissing questionnaires, other methods were considered. It was important at this stage, noting the commitment not to hypothesise, that the chosen method captured data richness and layered nuances. This requirement remained central throughout.

Case studies were immediately dismissed due to the central aim of theorising the constitution and genesis of TCN. Selecting case studies for evaluation would require the researcher to hypothesise and determine what constitutes TCN to assess their suitability for inclusion, rendering the research inherently flawed. Furthermore, within GTM, it is necessary to bound the context of investigation. It could not be determined whether historical case studies occurred within different contexts of operation, or at which point a metaphorical line ought to be drawn in history. Therefore, all forms of case studies were dismissed.

The next instrument considered was focus groups; however, this was also quickly dismissed. The nature of the phenomenon being studied is highly subjective, varying between individuals and requiring in-depth reflection to understand their nuances. Focus groups were deemed

ineffective due to several factors: the anonymity clause offered to participants; group conformity and social desirability bias that can occur in group settings, limiting the validity of data (Kitzinger, 1995); a potential lack of 'true' personal narrative in the group setting (Barbour, 2007); operational limitations in facilitating focus groups around shift work; and restrictions in selecting a 'host' location, which could impact rapport and comfortability (Elwood & Martin, 2000). These limitations were not exhaustive; however, further consideration cemented the decision to discount this instrument.

Observations and 'ride-alongs'²⁵ were also considered but ultimately dismissed due to the observer effect (DeWalt & DeWalt, 2010). The presence of a researcher could alter participants' behaviour, influencing their decisions, actions, and thought processes, thereby compromising the authenticity of the recorded data (DeWalt & DeWalt, 2010). The process could also be interrupted by a heavy emphasis on the researcher interpreting what they had witnessed and perceived, rather than prioritising participants' perceptions and narratives. Crucially, ensuring anonymity for officers would prove an insurmountable challenge in this context, as forces would need to know the researcher's location, activities, and with whom they were crewed or observing for safety reasons. Furthermore, ride-alongs often require officers to be double-crewed for the observer's safety and protection, raising concerns regarding consent²⁶, social desirability, and group effect. Officers may also be concerned about the researcher's status as a non-officer in the setting, potentially lessening their focus or altering their behaviour. Although the criticisms outlined herein are not exhaustive, this approach raised more practical concerns than could reasonably justify its use.

The final option considered was audio journaling²⁷, wherein participants independently narrate their experiences at the time of occurrence and submit recordings to the researcher. While initially appealing, this method was dismissed upon consideration of practical, methodological, and ethical concerns. Methodologically, a primary issue was the lack of active probing, which, as stated, is essential to uncovering in-depth, layered, and often subconscious experiences related to phenomena. This includes capturing internalised components, such as visceral and somatic presentations. 'Live' or independent recordings might fail to capture these aspects, and without a researcher's engagement to prompt further dialogue, key elements could be overlooked or missed entirely. Additionally, without a standardised question set that can be amended or expanded as participant accounts unfold, inconsistency in the dataset increases, prompting concerns regarding comparability and context validity (see: Dixon-Woods et al., 2005).

²⁵Embedding with active police officers to record and report on their experiences.

²⁶Referring to instances where one officer might agree to participate while the other might not but feels 'forced' into the study due to double-crewing requirements.

²⁷Sometimes referred to as audio recording or audio study.

Psychologically, a significant risk identified was that of immediacy bias (or ‘recency bias’). This bias refers to the human tendency to place disproportionate importance on or overvalue immediate incidents, distorting accounts (see: Griffin & Tversky, 1992; Kahneman, 2011; Lichtenstein et al., 1982; Moore & Healy, 2008; Perloff, 1987; Tversky & Kahneman, 1974), and it is particularly pronounced in situations reflecting ‘real-world’ events (White & Van Boven, 2012). Difficult to control, this bias increases the risk of selection bias, prioritising immediate incidents over prior ones, even when earlier incidents may better exemplify TCN. Conversely, by allowing participants to return to a state of homeostasis where immediacy bias is minimised, accounts are likely to consist of more reflective, consistent, and richer narratives. This approach also affords participants the opportunity to accumulate and integrate experiences over time, providing nuanced and reliable insights through which patterns, commonalities, and themes can emerge more readily.

Ethically, requiring participants to independently record their experiences complicates the collection and validation of variables that might measurably impact participants’ accounts. For instance, it would be challenging to ascertain whether accounts had been influenced by group or social desirability bias if recorded in another’s presence. This instrument also necessitates that participants record accounts in a professional setting, introducing concerns about self-censorship, anonymity, privacy, and authenticity of narratives. Additionally, this approach removes all non-verbal communication and cues from the data, significantly limiting the completeness of interpretation and analysis. On reflection, to ensure the authenticity of data, a sound foundation for comparative analysis, and protection against various biases and ethical concerns, audio journaling was determined unsuitable for establishing a substantive theory²⁸.

Ultimately, the research employed semi-structured interviews as the primary method for data collection. A review of the instrumental method and its applications is provided in the forthcoming section.

3.2 Interviews

Interviews offer rich, in-depth, and highly personal forms of exploration. Conducting interviews on a one-to-one basis allows researchers to gain unrivalled insight into phenomena, particularly those which may otherwise be unobservable. In the case of ‘The Copper’s Nose’ (TCN), although what it is or could be was not hypothesised, the research was inspired by an observation of its existence. As the research sought to explore the component features of TCN in great depth, interviews were deemed a sound choice to achieve this aim. The research also maintains a commitment to critical realism, meaning both objective and subjective explanations of the phenomenon ought to be considered. At the point of research conception, it could not be discounted that TCN might present with internal (visceral or somatic) features

²⁸This instrument may prove useful in narrative studies or where an objective component exists to record cognitive biases and should not be entirely dismissed for future research.

or components. That is to say, while it may manifest with an observable effect (e.g. an action), it may consist of or be preceded by internalised occurrences (e.g. feelings, thoughts, visceral sensations). Resultantly, the research may be classified as highly exploratory in nature, prioritising the consideration of all possibilities without preconceived notions.

One interview technique that prioritises such exploration is reflective interviewing, whereby participants are encouraged to deeply engage with their experience of the phenomenon being explored (Kvale & Brinkmann, 2009). This form of interviewing is particularly useful in research concerning un-theorised phenomena, where meaning has not been previously explored (see: Denzin & Lincoln, 2018). Furthermore, this approach allows for the creation of a dialogue in which participants can examine their internal realities and present a considered account of their experience. By prioritising active listening and asking exploratory questions accordingly, participants are likely to engage in deeper reflection and disclose hidden meanings, emotions, and accounts that comprise the phenomenon. The benefits of this reflective practice further weakened considerations to ask participants to record their experiences 'in the moment', as this did not allow for the necessary active probing to fully understand the phenomenon in completeness. While observations were also considered, they were discounted owing to their inability to accurately report on internal processes (see: Hammersley & Atkinson, 2007). Instead, using an open-ended interviewing approach encouraging highly descriptive and reflective dialogue enabled the collection of rich in-depth data, including internal perceptions, from which a substantive grounded theory could emerge.

Researchers conducting reflective interviews are encouraged to employ probing and follow-up questions to participants to encourage a more comprehensive and thorough narrative. This can include questions related to externally unobservable and internal realities, such as those aforementioned, as well as hidden or subconscious insights that participants may not otherwise identify. It is often the case that where experiences include internalised components, these may not be realised without engaging in active reflection (Moustakas, 1994). As expected, active prompting has attracted criticism due to the potential for researcher bias. Consequently, as part of facilitating reflective interviewing, researchers must ensure they maintain neutrality and do not lead or influence participants' responses.

Emphasising neutrality – a principle shared with GTM – prominent scholars of reflective interviewing, Brinkmann and Kvale (2015), highlight the importance of minimising interviewer input. Participants should guide the interview without being influenced by interpersonal dynamics, including the host setting. For instance, this requires researchers to consider the interview location and, where possible, allow participants to select a setting. In practice, this informed the decision in this research to allow participants to interview in their home or work setting. As participants represented a professional population, it was deemed appropriate that they were able to participate within their professional setting. However, the phenomenon being explored may carry through into participants' personal lives or form part of their identity

outside the professional setting. Therefore, the most suitable interview setting would be determined by the participants based on where they felt most comfortable and in which environment they believed they could freely and deeply recall and reflect on TCN.

3.2.1 Virtual (Online) Interviews

A more novel²⁹ instrument used in this thesis is digital, or virtual, interviewing. Virtual interviews can be classified in the context of this research as interviews that take place in a synchronous format using online platforms. The practice of online interviews may be considered in its infancy, with the Covid-19 pandemic prompting rapid development and increases in use. Before this time, virtual interview methods had been used sparingly since the early 2000s, with the rise of platforms such as Skype, Apple FaceTime, Zoom, Microsoft Teams, and video-based technologies accelerating their popularity. Like much of the technological revolution, change and implementation have happened quickly, with many researchers unfamiliar with research practices concerning digital methods. It was established during the early stages of this research that virtual interviews would be chosen owing to their many benefits that would be applicable and enhanced by the nature of this thesis.

The first benefit is that of access. As the context of this research falls within a professional setting – and one that faces greater security concerns in accessing the physical setting³⁰ – the practice of virtual interviews navigated many of these barriers to access that may have obstructed data collection. Minimising the need to secure physical access to various sites also maximised the geographical reach of the research, both within individual forces³¹ and across England and Wales, without incurring additional economic costs or time loss. Furthermore, a condition of participation was that participants would be granted flexibility of interview³² during their standard working hours where it was operationally possible³³. This often meant that participants were scheduled to interview, subject to work demands, and needed to delay or alter their interview appointment with very little notice. The inherent flexibility of virtual interviewing allowed for delays and cancellations with minimal loss or inconvenience to the researcher and participants. Interviews could take place in private spaces within the organisational setting, from a participant's home, or from a third-party location, as per the participant's preference. This provided participants with control over the setting, balancing power dynamics, maximising comfort and security, and removing researcher intrusion into

²⁹Novel in its infancy as a research instrument.

³⁰Often requiring security clearances that are costly, laborious, and subject to administrative delay.

³¹Covering large counties or geographical areas.

³²In date/time and location.

³³Where service demands and emergency calls took priority.

private settings, which would introduce considerable new risk assessment, privacy, and ethical concerns.

Despite numerous benefits, like all instruments, digital methods bear criticisms which are noted. A not insignificant criticism is that digital methods neglect concerns of access equality, which may produce a sampling bias. However, as this research concerned professionals for whom internet access is provided and where skills-based training is part of the role, access equality did not hold as a practical concern. One concern that was valid was that of privacy, particularly around the visibility of the background. In any online video-based setting, and for interviews taking place in a participant's private space, the background or environment of the participant and any revealing details that may include ought to be considered. This might present in the form of personal or professional information, which can raise privacy and confidentiality concerns, and introduce subconscious bias, such as family photographs displaying the relationship status or sexual orientation of a participant where it would otherwise remain protected and/or undisclosed. Similarly, disturbances must be accounted for, such as background noises or interruptions from those in the nearby environment. In work settings where the professionals are participating within their working hours, they may be called upon, segmenting the interview, or requiring it to end early³⁴. In home environments, participants may equally be disturbed by family, friends, or pets. In each of these scenarios, researchers may be privy to additional private or sensitive information, and measures ought to be taken in advance to protect against this. Furthermore, online interviews introduce a physical barrier between the research and the participant. This can impact the ability to establish rapport and the availability of non-verbal communication and cues. In studies which rely on interpretative analysis, this can prove problematic. However, research in clinical psychology has found that the communication of highly personal accounts, e.g. telehealth³⁵, does not produce inferior data compared with in-person methods, and that patients may feel more comfortable in remote settings, leading to greater levels of self-disclosure and higher reported levels of reflection (see: Hassija & Gray, 2011; Maieritsch et al., 2016; Morland et al., 2014, 2015). This is particularly relevant in the context of this study, which aims to limit self-censorship and promote deeper reflection, without imposing upon the personal settings of participants.

A practical concern, echoing broader concerns in the digital space, was that of platform performance, including user-friendliness and security. Immediately discounted was Apple's FaceTime, owing to it being a closed-device programme, and Skype, which had started to withdraw much of its functionality. The most popular platforms at research conception were Zoom and Microsoft Teams; however, Zoom had recently experienced a data breach that revealed some weaknesses in the protection of user data. By comparison, Teams offered end-

³⁴This was fortunately not experienced during fieldwork.

³⁵Online forms of psychological or psychiatric intervention or therapy.

to-end encryption and higher compliance with international regulations and certifications³⁶. At the granular level, Teams also allowed greater control over user permissions and settings, with integrated security infrastructure, including multi-factor authentication. Forces in England and Wales had also authorised the platform for internal use, ensuring accessibility on organisational devices. This allowed for workplace access, maintaining the commitment to access equality. Teams, like many online platforms, also offered transcriptions, either synchronously in auto-generated formats or as a subsequent service. This can aid in data collection and analysis. These transcriptions can, from experience, prove inaccurate³⁷; however, as will be discussed in forthcoming sections, the inaccuracies of auto-generated transcription did not prove detrimental to this research, as interview transcripts were compiled manually.

In summary, this thesis leverages contemporary instruments in the form of virtual interviewing. Particularly suited to the context of study, the method offers significant benefits to the research process, including minimising barriers to access, increasing geographical representation while limiting economic cost, maximising ease of fieldwork, and promoting participant control and flexibility. The online setting can foster greater levels of comfort and disclosure by participants without the requirement for researchers to intrude upon participants' personal or professional spaces. Whilst these instruments are subject to valid technological criticism, the enhancement of modern security systems and compliance with international regulations and ethical frameworks contributes to their increasing popularity. Ultimately, the strategic and thoughtful use of virtual interviews aligns with the aims of the research and enhances the potential for representation and the inclusion of rich and nuanced insights across the sample population.

3.2.2 Sampling

To ensure participants constituted an appropriate sample from which to form a substantive theory, it was determined that all territorial Forces in England and Wales should be considered as part of the sampling group. This was to ensure there was no bias towards a particular region, or size of Force, where the archetype of policing could differ from other areas.

Police Scotland and the Police Service of Northern Ireland (PSNI) were discounted from the study due to their policing legal jurisdictions being separate from that of England and Wales (Judiciary of England and Wales, n.d.). As a result, they operate under different legislation: Criminal Justice (Scotland) Act 2016; Police (Northern Ireland) Act 2000; Police (Northern Ireland) Act 2003; and are accountable to the Scottish Police Authority and the Northern Ireland Policing Board, respectively. While this may not have a discernible impact, it could not be determined whether the variance in the parameters of legislative operation could constitute a contextual difference that might affect the validity of the substantive theory formed.

³⁶GDPR; HIPAA; ISO 27001.

³⁷Particularly across various accents and dialects.

Therefore, only forces operating under the jurisdiction of England and Wales, and sharing the same operating standards, would be included.

Recognising that the sample population could constitute an elite group³⁸, it was prudent to approach the relevant organisational bodies responsible for police practice in England and Wales. As a result, the first contact made was with the College of Policing (CoP). The College of Policing is a professional body responsible for setting standards (Authorised Professional Practice) across policing (College of Policing, n.d.). As part of their commitment to the sharing of best practice, the CoP publishes the 'Research Map' with the aim of promoting active research that has been endorsed by the College as being of value to policing. To secure inclusion on the Research Map, research must be validated. The necessary support was received in advance of research commencement, which included placement on the Research Map and a letter of endorsement for distribution to the forces of England and Wales encouraging their participation in the research (see: College of Policing, 2021).

Across England and Wales, there are 43 territorial police forces, divided into 10 policing regions³⁹. These Forces vary in their size (of workforce and geographical area), the demography of officers, degree of urbanisation, and archetype of policing⁴⁰. In the first instance, all forces in England and Wales were approached with an invitation to participate. The research approval processes of each force varied, and as a result, forces confirmed their participation at different rates. For some, a condition of participation was an anonymity clause – findings would be returned to the force but would not be held on public record. As a result, to ensure the anonymity of those who had requested it, all forces were granted anonymity, and their identities will not be disclosed herein. Furthermore, as the research was due to take place over several years, some forces returned 'agreement(s) in principle', subject to their involvement being needed at a later date. Of all forces approached, only one declined participation owing to other force pressures. An additional force stipulated that they would like to manage and oversee the participating officers for their own records. However, as this was against the anonymity protocol of the study, they were discounted from the study.

As it could not be determined prior to fieldwork commencement at which point theoretical saturation would be reached, it was realistic to plan for the possibility that not all forces could, or would, be included in the sample. However, the final sample ought to be proportionally

³⁸That is to say, they hold social authority and may be subject to access restrictions due to security concerns. Furthermore, their opinions and participation may be seen as jeopardising their professional career or practices, particularly those concerning covert practices, thereby causing reluctance to participate unless accounted for and managed sensitively (see: Harvey, 2011; Mikecz, 2012).

³⁹Northeast, Northwest, Yorkshire and the Humber, East Midlands, West Midlands, Eastern, London, Southeast, Southwest, and Wales.

⁴⁰Reflecting the variance in crimes committed.

representative of all forces in the sampling group. It was therefore determined that the sample would be cross-referenced against a range of metrics to ensure representativeness. The final sample consists of 69 interviews, across four phases, drawn from six forces⁴¹. Whilst it was made clear that no participant represented their organisation, it remains nonetheless important to ensure that any cultural or archetypal differences were accounted for. The final six forces were cross-referenced against⁴²: size of force by area; size of force by population⁴³; region of operation⁴⁴; and degree of urbanisation⁴⁵. These metrics ensure that any resulting theory is sensitive to the diverse operational contexts (including crime types), community demographics, and policing challenges (both regionally and operationally) – strengthening the theory’s applicability and validation across different policing contexts. The individual description of each force as per the above metrics will not be provided herein as this could compromise anonymity. However, the six forces were determined to be sufficiently diverse, representing: three ‘large’ forces, two ‘medium’ forces, and one ‘small’ force, by population:officer ratio; one ‘very large’ force, one ‘large’ force, two ‘medium’ forces, and one ‘small’ force, by geographical area, covering six unique policing regions; two urban forces, three mixed⁴⁶, and one predominantly rural force.

To ensure a representational sample, officers across all ranks, divisions, and specialisms would be eligible to participate. The demographics of participants included in the final sample will not be discussed herein as the phenomenon did not present with gendered, age-based, or ethnic components. Where the phenomenon did present according to demographic factors (e.g. length of service), these components will be discussed extensively within the data analysis.

To recruit participants, the contributing forces advertised the research internally using a variety of marketing tools, e.g. intranet, direct communications, and advertisements in common areas. An agreed-upon condition was that officers would participate anonymously. The anonymity clause was included to: safeguard participants’ information, protect disclosures of sensitive data or insights that could lead to personal or professional repercussions; encourage honest responses; promote candour free from the judgement of colleagues; reduce social

⁴¹Albeit some had held membership, or had undergone training, elsewhere. This is accounted for in forthcoming comparisons.

⁴²Calculated as at end of 2020.

⁴³Calculated as ‘number of officers per 100,000 population’.

⁴⁴Based on the 10 policing regions.

⁴⁵‘Type’ of area was categorised by reviewing the size of Force by area against the ONS’ ‘RUC2011 Rural/Urban Classification Dataset’ (Office for National Statistics, 2016). Forces were then declared urban, semi-urban, or rural, based on their comparative status.

⁴⁶Determined to be semi-urban/semi-rural.

desirability bias; facilitate open discussion without the fear of identification, which could promote guarded or contrived responses; encourage participation; and comply with the highest ethical and legal standards of research. In fulfilment of the anonymity clause, all communication between the researcher and participants occurred directly. Contact details for the researcher were listed on all advertisements and materials, and officers were able to select the appropriate date/time for participation around personal and professional commitments. Alongside all marketing materials was a 'Participant Information Sheet' (see: Appendix A). Following the arrangement of an interview, participants received an email confirmation, which included a copy of the 'Participant Information Sheet', and a 'Consent & Data Protection Form' (see: Appendix B), to be completed and returned prior to participation. Sampling continued until theoretical saturation was reached.

3.3 Data Management

Methods of processing and organising data aided in data management, where participant contributions had to be anonymised and stored accordingly. An overview of the practices employed are discussed herein.

3.3.1 Participant Codes

To maintain participant and force anonymity, each participant was allocated a corresponding code under which their interview was managed. The code is expressed in the format: PXXFXX. To determine the code, forces were placed into a random number generator and assigned a number between 01 – 43. The participating forces were allocated the codes: F08, F11, F14, F17, F20, and F35. Participants were then assigned a participant number, depending on what number participant they were from the corresponding force. As a result, codes appear as, e.g. P01F08, to indicate they were the first participant from force 08.

As the phases of research progressed, the codes were amended to indicate in which phase the participant was involved. For example, the codes became expressed in the format, e.g. 2P04F11, to indicate that the participant was from Phase 2 of the research, and that they were the fourth participant from force 11. Where re-interviews occurred as part of theoretical development (common in Phase 3), participants maintained their original code, e.g. P03F14, with the phase number amended. For example, participant P03F14 interviewed in Phase 1 became 3P03F14 for their re-interview in Phase 3 to ensure that the participant code remained consistent, but the interview phase could be identified.

3.3.2 Transcription

As is standard practice for interviews, it was necessary to transcribe the interviews for data analysis (including coding). The host platform was unable to separate video recording from audio recording, and as a result, interviews were stored as a combined entity. Whilst the officers were anonymised by codes, the original interviews included details – particularly when

discussing lived experiences – which may compromise the identity of the officer, and/or contain sensitive information. It was therefore determined that a third-party transcription service, including built-in platform transcriptions, would not be used. Transcriptions were typed and compiled manually, with sensitive or identifying information redacted. All interview downloads and transcripts were stored on a local disk and on an external removable drive – both of which were encrypted to approved standards.

N.B. *Researcher Note*: Despite the manual processing of transcripts proving incredibly time-consuming, it offered a wonderful opportunity to maximise familiarisation with the data. Each interview was listened to an average of five times prior to the commencement of coding.

3.4 Methods of Analysis

This subchapter presents the methods of analysis as stipulated by GTM and includes discussion on their appropriate and effective use in establishing a theory.

3.4.1 A Note on Terminology

Managing vast amounts of data can become challenging if proper management strategies are not employed. Inspired by the works of Braun and Clarke (2006) on thematic analysis, specific terminology will be applied to assist in the provision of transparency and the management of data alongside subsequent analysis. The data which is included herein is referred to as the *data set*. Each independent interview is known as a *data item*. Each itemised piece of information that has been coded within a data item is known as a *data incident*.

3.4.2 Comparative Analysis and Coding (GTM)

Facilitating theoretical emergence through the process of ‘coding’ is a fundamental part of GTM. Demanding a “general method of comparative analysis” in order to compare the data items to each other, within the same context, to analyse where contextual differences may emerge (Glaser & Strauss, 1967, p. 3), this coding approach provides a structure for the identification of patterns and emergent relationships within data. Glaser (1992) emphasises the need for constant, iterative comparison; going back and forth between data collection, review, and refinement, as key concepts emerge. This method of coding is underpinned by theoretical sensitivity (Glaser, 1978). As a research skill, theoretical sensitivity refers to the researcher’s ability to identify important data points and emergent patterns from within the data whilst maintaining a position of neutrality. To do so, a researcher must become actively embedded within their research, practising patience with the data as the theory emerges. The process of achieving theoretical sensitivity through refining, revisiting, and revising the data can take months, sometimes years, and only by allowing for this can a theory reach maturation (Glaser, 1978).

The principal process by which the analysis is achieved rests upon, as has been alluded to, constant comparison (Glaser, 1992; Glaser & Strauss, 1967). Through the identification of

'incidents' and the categorisation of individual data points, e.g. words, phrases, or short anecdotes, comparison ought to produce a viable code which reflects a concept, as opposed to a description⁴⁷ (Glaser, 1992). Codes eventually translate into categories, where a principal category (or categories) emerges as the central pillar of the theory. Subcategories may be generated subsequently, either as subsidiaries of the central category or as secondary categories within the wider theory. These categories – which have been derived from empirical evidence – provide the theoretical insight to establish a substantive theory (Glaser, 1978, 1992).

To practically manage the emergence of a theory during the coding process, GTM advises the use of memo-writing, encouraging researchers to articulate their thoughts and document their reflections on incidents, codes, categories, patterns, and themes (Glaser, 1978). This assists in tracking the natural and flexible formation of a theory, facilitating return and review, as opposed to the forcing of data into pre-established coding frameworks; a criticism leveraged by Glaser against later amended forms of grounded theory methodology (Glaser, 1978, 1992). The flexible, data-led first stage of coding, 'open coding', is an inherent feature of all forms of grounded theory methodologies, reflecting an acknowledgement of the complexity of understanding human social processes and phenomena. Maintenance of flexibility during this stage allows for the research to adapt to the data accordingly, enhancing the credibility of findings. Iterative and constant review of the data, alongside a commitment to reflexivity throughout, deepens a researcher's understanding of the data and resultant theory to unparalleled levels (see: Charmaz, 2006; Finlay, 2002; Lincoln & Guba, 1985).

Once the process of open coding has been completed, the researcher is invited to begin 'selective coding'. During this stage, the focus shifts from identification to integration, where incidents are organised into emergent core categories, and less prominent subcategories. Data is simultaneously reviewed for descriptive coding and reorganised into conceptual terms. Selective coding is an important stage in allowing the core components of a phenomenon to emerge (Glaser, 1992). Whilst this type of coding is shared with other forms of grounded theory methodology, it is typically undertaken after a period of 'axial coding'. For Evolved Grounded Theory Methodology, axial coding requires researchers to deposit their codes into a framework which is created through a process of identifying causal conditions, mechanisms, strategies, and consequences (Strauss & Corbin, 1998). Whilst systematisation of this approach may be seen as beneficial, for proponents of GTM, the requirement to code axially is overly rigid and demands the data to be 'forced' into predetermined categories that depart from GTM's purpose: to establish an emergent theory in a natural and adaptive way (Glaser, 1992). For Constructivists, a similarly structured protocol of 'focused coding' is required, which stresses the importance of the researcher's interpretative role and recommends coding more explicitly for the participant's voice (Charmaz, 2014). For Glaser, these deviations in coding

⁴⁷Which may be more prevalent in phenomenological analysis.

reflect the epistemological difference between methodologies and impose researcher bias without practising the necessary reflexivity to eliminate or minimise it (Glaser, 2002). These alternate forms of coding are said to weaken any emergent theory's foundation by shifting the theoretical lead away from the empirical data and closer to the researcher (Glaser, 2002). Instead, Glaser proposes a final process of theoretical coding: where the relationships between the core, sub-core, and other categories are identified. As connections are formed, a cohesive theory comes together. The final theory ought to reflect abstract models of integrating categories that form the basis for theoretical identification and explanation (Glaser, 1998).

Like its amended versions, GTM has also received criticism for its processes of analysis. Criticisms tend to take two forms. Firstly, the open-ended and highly flexible nature of analysis may lead to ambiguity in theoretical development, and/or result in large amounts of data that can become difficult to distil unless effectively managed (see: Bazeley, 2009; Creswell, 2013). Secondly, echoing the criticisms of the Evolved and Constructivist thinkers, GTM assumes a neutrality that is difficult to achieve in practice, and does not account for the researcher's influence (see: Morrow, 2005). However, proponents of GTM argue that as researchers actively engage in comparative processes and develop the skill of theoretical sensitivity – a rigorous process in itself – they become adept at handling the larger quantities of data and coding that could prove overwhelming to those who have not been intimately embedded within research for substantial periods of time (Glaser, 1992). Furthermore, as the processes of analysis are restricted to comparative techniques, the analysis possesses an inherent framework which bounds the researcher to the evidence. As concepts are identified directly from data incidents, and the theory emerges as a result of direct comparison within the data, findings can be traced back to an evidence base. This binding protects against the introduction of external or personal biases, as well as preconceived ideas without an evidence base, reducing the strength of criticisms that doubt the maintenance of neutrality (Glaser, 1992). This notion of emergent fit, along with a commitment to rigour and reflexivity⁴⁸, have been accepted by critics as acceptable practices in the management of potential bias (see: Morrow, 2005). However, it is stressed that this does not 'catch all', and researchers ought to consider non-negotiable and sensitive elements of positionality which may affect research (e.g. holding 'insider' status) (Morrow, 2005).

3.4.3 Method of Analysis: Retroduction

Retroduction, or 'retroductive analysis', is a utility-based form of practical analysis that employs logical reasoning to hypothesise the most plausible mechanisms and causes underlying empirical observations in data. Often used in qualitative study, and particularly useful in studies concerning phenomena, it explores that which may not be immediately

⁴⁸Albeit the practice of 'reflexivity' was not explicitly referred to by name by Glaser.

apparent or observable by applying a regressive or abductive approach to explanations (see: Mukumbang et al., 2021). Unlike deductive analysis, which tests hypotheses by drawing conclusions from general premises, and inductive analysis, which generalises from specific observations, retroduction prioritises that which goes beyond the surface level to create deeper theories that account for hidden causes or mechanisms to explain processes (Danermark et al., 2002). As a form of analysis, it is popular among those who adopt a critical realist position – as contained within this thesis – which asserts that reality can consist of both subjective realities and objective causal mechanisms (Bhaskar, 1975). ‘Reasoning backwards’, as it may be considered, retroduction can be summarised by focusing on why something happens, as well as how it comes to be (Danermark et al., 2002). Often employed within psychosocial or public health disciplines where research into complex human phenomena is standard, retroduction reflects the assemblage of observable patterns and theoretical integration with possible mechanistic explanations to produce comprehensive theories of behaviour and phenomena (Sayer, 1992).

Complementary to GTM, the retroductive process is iterative, focusing on review and refinement as different mechanisms become a better fit for the empirical data (Olsen & Morgan, 2005). It assumes a comparative approach between incidents, large (sub-)sets of data, and emergent patterns, which may align with proposed mechanisms, or may deviate from an emergent hypothesis (Blaikie, 2007). As with all analytical tools, retroduction has been criticised as it does not include, as standard, a simple way to empirically verify causal hypotheses (Blaikie, 2007). However, providing hypotheses are offered as theoretical in their presentation, they provide deep and valuable possible explanations of human behaviour and offer a starting point from which further refined testing can be conducted.

3.4.4 Practical Coding: Theoretical Sensitivity

The concept of theoretical sensitivity is a cornerstone of GTM (see: Glaser, 1978). Representing the researcher’s capability to abstract conceptual categories from the data, it emphasises the importance of identifying patterns, connections, and meanings in the development of a theory. This sensitivity is cultivated through immersion and familiarity with the data and relevant sociopsychological frameworks that support conceptual emergence. Theoretical sensitivity enables the researcher to generate categories and concepts without requiring hypothesis testing or verification, as may be seen in other methodologies. Alongside constant comparative analysis, and constituting part of theoretical sensitivity, the notion of ‘coding families’, as well as forms of processes (‘Basic Social Processes’ and ‘Basic Psychological Social Processes’), are key in enabling a researcher to understand and organise data, and manage theoretical emergence (Glaser, 1978).

To achieve theoretical sensitivity, Glaser proposes ‘coding families’ which act as conceptual tools. The ‘process family’, for example, focuses on sequences, stages, or transitions, allowing the researcher to acknowledge how actions and events unfold, and what processes they are

subjected to, embedded within, or trigger as a result. The 'dimension family' explores dichotomies and variations, usually in binary terms. For example, notions of inclusion versus exclusion, or autonomy versus control. Similarly, the 'strategy family' focuses on the methods that individuals or groups use to address challenges – both internal and external – and how they go about exercising agency and problem-solving. These families provide heuristic frameworks which assist and guide the researcher to see beyond description to identify deeper structures and conceptual forms within the data (see: Glaser, 1978).

In practical terms, Glaser recommends applying 'binary' and 'cycling' codes to identify common thematic patterns (Glaser, 1978). Binary codes are used to reflect opposing or dichotomous themes within the data, such as tensions between organisational policies and informal practices – of potential relevance to this thesis. Meanwhile, cycling codes are used to capture iterative or recurrent patterns often associated with processual or developmental phenomena, such as processes of reviewing and revising behaviour and beliefs. Each of these codes emphasises GTM's focus on how a theory comes to be; both within the research, but also within the context of the study (see: Glaser, 1978).

To elucidate further on the theoretical processes identified, the labelling of concepts is warranted in the form of 'Basic Social Processes' (BSP) and 'Basic Psychological Social Processes' (BPSP). The processes are typically distinguished by their generality and capacity to explain patterns of interactions across substantive areas. These ought to be considered associated conceptual threads that researchers identify to assist in the positioning of the emergent theory alongside other sociopsychological frameworks. A BSP would be identified as a pattern of behaviour or interaction that is framed within the social context, whereas a BPSP would refer to the psychological dimensions of these interactions and processes (Glaser, 1978). In the policing context, an example of a BSP might be 'managing public perception', which reflects how forces negotiate their relationship with the public whilst upholding their responsibilities. A BPSP might be 'understanding officer identity', which could reflect the reconciling of an officer's sense of duty with public expectation and any resultant internal conflict that might present. This process of categorisation is important for establishing an understanding of the psychological and emotional dimensions that underpin phenomena within the context of the study (see: Glaser, 1978).

In summary, theoretical sensitivity in GTM focuses on the researcher's ability to conceptualise data meaningfully, guided by the use of practical tools. Binary and cyclical codes exemplify how theorists uncover dynamic relationships and patterns within the data and come to categorise them. 'Families' act as heuristic devices to allow researchers to understand the relationship between categories. The use of BSP and BPSP represent core constructs within concepts and provide the foundation of theoretical contribution for broader application. Theoretical sensitivity and its elements offer an approach within GTM through which abstract

representations of human behaviour can transcend specific contexts and offer explanatory power for broader sociopsychological phenomena grounded in empirical evidence.

3.5 Ethics and Reflections

Ethical considerations are fundamental to maintaining integrity and rigour in research, aligning with both institutional guidelines and broader research standards. These principles guide the design, implementation, and dissemination of findings and warrant significant consideration. This subchapter details the ethical principles underpinning the research, the steps taken to secure the necessary approvals, and a discussion of the ethical dilemmas encountered.

3.5.1 Ethical Considerations in Qualitative Research

Ethical considerations in qualitative research are extensive; however, addressing them thoughtfully is essential to producing rigorous work. To manage this complexity, ethical concerns can be organised into five broad categories: informed consent and autonomy, confidentiality and participant safety, reflexivity in researcher-participant dynamics, cultural sensitivity and contextual awareness, and power dynamics in ethical relationships.

i) Informed Consent and Autonomy

Ensuring that participants possess a complete understanding of the research, their contribution, and their participation rights is vital to validate their consent (Hammersley and Traianou, 2012). In the context of policing, informed consent is complicated by hierarchical organisational structures and legal responsibilities within the professional framework, which may result in concerns over job security or disciplinary consequences. Furthermore, when research focuses on professional practice – where the findings may generate implications that affect participants – it is essential to carefully balance ethical responsibility with the need for practical insight. This requires heightened sensitivity to participant autonomy, transparency in the research process, and a commitment to minimising any potential risks associated with the implementation of findings. When using digital methods – as articulated earlier and applicable to this study –, ensuring that consent is fully informed requires additional clarifications on data storage, recording protocols, and the limits of confidentiality within the digital space. In practical terms, this was addressed by sharing a detailed consent form alongside an information sheet that covered all relevant information pertaining to these concerns prior to agreements to participate. Ahead of the recorded portion of interviews, the parameters of the study were restated, with an emphasis on the impacts of participation (i.e. on the individual, organisation, and wider policing practices). Additional verbal consent was requested, with the opportunity to ask any questions prior to consent being granted. At the end of the interview, the right to withdraw was restated, and the practical steps to do so shared. Contact details of the researcher were confirmed unchanged, and an open invitation to make contact to withdraw was given.

ii) Confidentiality and Participant Safety

Across all aspects of research, confidentiality is fundamental; however, in the policing context, confidentiality must be treated with additional care owing to the sensitive, implicating, and oftentimes traumatic experiences that may have adverse effects on the participant if confidentiality were compromised. In digital settings, maintaining confidentiality is complicated by system surveillance and the potential for data breaches. Wiles (2012) emphasises that researchers must be clear on the stringency of data security and implement measures to protect participants. In the case of this study, as elucidated in earlier sections, digital platforms were selected owing to the levels of encryption and security afforded. Participants were informed about how their data would be stored, accessed, and used, with the option to withdraw their data at any time in accordance with autonomy policies. As anonymisation was guaranteed as part of participation, any occurrence in which this would be compromised was mitigated against. For example, whilst undertaking the approvals process with one force, they requested management and oversight of participants as part of their granting approvals. As this would compromise anonymity, the force was discounted from the study. Furthermore, in recognition of the questions that pertained to anecdotal evidence, participants were informed prior to the interview that any information shared as part of an example which could lead to identification of themselves or others would be redacted prior to processing.

iii) Reflexivity and Research-Participant Dynamics

Reflexivity in research, as previously discussed, is crucial for understanding how a researcher's beliefs and biases shape all aspects of the research (Finlay, 2002). This is particularly important within contexts where preconceived notions may be held about a particular profession or social group, which may inadvertently affect the interpretation and analysis of the data. The 'insider' or 'outsider' status of a researcher is of critical importance here and may be more pronounced within settings where there exists a power dynamic, such as that examined herein. In a practical sense – in addition to identifying a researcher's positionality at the research conception – ongoing reflection is necessary as the research develops to ensure that any subconscious effects of the research have been identified and addressed. To protect against limitations in rapport-building caused by the digital environment (including minimisation of non-verbal cues), it was necessary to adapt to the setting accordingly, making additional efforts to develop trust through transparent and open communication.

iv) Cultural Sensitivity and Contextual Awareness

Maintaining a sense of cultural sensitivity is vital to conducting valuable research, particularly research that is contextually dependent (see: Liamputtong, 2010). In policing, the uniqueness of the occupational culture can influence responses, openness, and trust in research processes, and researchers must be cognisant of the operational context to mitigate this,

especially with respect to procedural and legal restrictions. As part of this study, it was additionally relevant to consider the impact of these restrictions and cultural sensitivities in the digital setting, being sure to account for potential depersonalisation and concerns around security. Acknowledging the unique complexities faced by participants as they represented their professional role, and in discussions concerning their life experiences, overlayed by the digital setting, was necessary to foster trust across the research process. In a practical sense, this involved the verbal acknowledgement of their position and the culture of operation to facilitate open dialogue and ensure their comfort. In some cases, it proved beneficial to disclose elements of the researcher's positionality and their exposure to the context to provide reassurance and establish rapport.

v) Power Dynamics and Ethical Relationships

Kvale and Brinkmann (2009) have outlined the power dynamics inherent in interview relationships, where researchers often hold authority over how questions are framed, interview conduct, and the power of scrutiny over how data is interpreted. In the policing context, where sensitivities are ubiquitous, power dynamics can be intensified if participants feel as though their participation could adversely impact their professional reputation. For this reason, the anonymity clause was crucial in ensuring open and honest narratives. Furthermore, by allowing participants to select the setting in which they participated, and restating the purpose and format of the interview prior to its commencement – emphasising flexibility and autonomy – the balance of power was redressed or neutralised as much as was reasonably possible.

3.5.2 Ethical Approval

This research⁴⁹ was granted ethics and risk assessment approval by the Institute of Criminology prior to the commencement of fieldwork. This was in addition to the endorsement of the College of Policing, and the approvals issued by each participating force.

Owing to the iterative and developmental nature of the research, the pre-set interview questions were subject to change, as was the sample. When a change occurred, permissions were refiled with the relevant ethics and risk assessment bodies where subsequent approvals were granted.

3.5.3 Ethical Reflections

This subsection will focus on the researcher's reflections made throughout the research process. They will broadly cover: reflexivity, the maintenance of objectivity and emotional distance, cultural sensitivity and professional respect, application of research findings, and reflections on the use of GTM.

⁴⁹Inclusive of accompanying materials: 'Consent Form', 'Participant Information Sheet', 'One-Page Brief'.

i) Reflexivity

Throughout this research, reflexive practice has proved crucial in the assessment of my own background, biases, and influences over the study. Entering this project with specific understandings and beliefs about the structure of policing, I was conscious of how these perspectives might unconsciously shape the research process. This was particularly important, given GTM's emphasis on distancing oneself from preconceived notions and expectations. At the conception of the research, I made a commitment to maintaining reflexivity throughout, holding firm to its principles. By the end of this research, I feel that such a commitment has only developed, and I find myself passionately invested in sharing the importance of positionality and reflexivity in research. My own practices, which have included private journaling, discussions with supervisors and advisors throughout, conversations with those outside of the field of research, and dedicated periods away from the data to practise independent deep reflection, have been paramount in maintaining the critical examination of my own positionality. It has not been without challenge; some of which will be covered forthcoming.

ii) The Maintenance of Objectivity and Emotional Distance

Given the sensitive and highly politicised nature of policing, maintaining objectivity and emotional distance was at times very challenging. Anecdotes and examples shared by the participants were often emotionally charged and invoked strong opinions, oftentimes involving the retelling of criminal cases which had 'stuck with them (participants)' for years. Such is the nature of policing that the most poignant illustrations would regularly centre around serious offences which were graphic in description and often prompted a visceral response (i.e. disgust). Allowing a period of decompression – both for the participants and for the researcher – became a duty of care. Incorporating personal time to process my own responses before continuing with the research became a key safeguarding mechanism.

In one incident in particular, this was challenged considerably. An initial intention of the research was to learn whether TCN, or 'policing sixth sense' as a more applicable term, held international or universal existence. To achieve this, forces in the United States were initially approached for inclusion. However, after several interviews, it became apparent that the context of policing was sufficiently dissimilar that a valid comparison could not be conducted. Owing to the importance of examining a bounded context within grounded theory, these interviews – which occurred over a separate phase – were excluded from the data set herein⁵⁰. However, shortly after conducting these interviews, it became known that one of the participants had been professionally dismissed following an unlawful incident; the details of which became publicly available. The incident – the details of which will not be discussed herein owing to the continued commitment to anonymity – was of a sensitive nature and

⁵⁰Although they remain available to form the basis of future research.

involved an individual (victim) who shared many characteristics with me – the researcher. Learning of this abuse of power felt uncomfortable, noting that the interview with the participant had discussed legitimate uses of power. A period of reflection followed, which centred on whether positionality had been affected, and if so, whether it had been affected to such a degree that it would subconsciously alter analysis. Over this time, I reflected on notions of cognitive dissonance⁵¹ and empathy bias⁵², and evaluated my emotional investment in the research. After significant contemplation and several thought-provoking discussions with advisors – in which it was highlighted that such eventualities not only occur, but ought to be expected in the line of work under examination – it was determined that positionality had not been affected to such an extent that it would alter the analytical approach. However, it did illuminate the potential to become emotionally affected by the research and emphasised, in practical terms, the importance of maintaining objectivity. This learning contributed to the intense commitment to reflexivity that I now hold, supported and underpinned by lived experience in research.

iii) Cultural Sensitivity and Professional Respect

The nature of engaging with a culturally and professionally diverse participant group underscores the importance of practising cultural sensitivity and respecting professional experiences and narratives. As interviews progressed, I quickly became aware of the nuances and complexities within professional specialisms and the varied routes into policing, which I had not previously considered. As the influence of culture and specialism became clear, I made concerted efforts to ensure flexibility and openness in interviews to honour the unique viewpoints of each participant. This increased sensitivity not only facilitated a richer data set but also fostered an atmosphere of trust, respect, and understanding, contributing to the establishment of rapport. The varied social and professional perspectives of participants allowed for the development of a deeper cultural understanding of the context under exploration and led to the inclusion of later-phase interviews with Chief Officers on cultural practices.

iv) Applications of Research Findings

Another area of ethical reflection was the degree of transparency with participants about the possible application(s) of research findings. In navigating their expectations about the application of findings, I encountered occasional tension between managing participants' expectations – often centred on larger-scale revisions of authorised policing practices – and maintaining the objectivity of the research. To mitigate this, I regularly emphasised to

⁵¹Terminology for the mental discomfort felt when a person's behaviour misaligns with our perception or opinion of them.

⁵²In which we are more emotionally affected by the actions of those that we know or are familiar with, compared to those with whom we are unfamiliar.

participants the independent nature of the research and the realistic contribution it would make: to inform rather than to influence. At the beginning of each interview, I restated the purpose of the research, and the intentions set out. At the end of the research, I debriefed participants and invited questions to clarify the research purpose and expected outcomes. This transparency and ongoing open dialogue helped maintain both ethical integrity and participant rapport, reinforcing respect, honesty, and transparency in the research process.

v) Use of Methodology (GTM)

Using GTM presented unique challenges; some of which were known at research conception, and others became known as the research developed. At research completion, I consider myself a keen proponent of GTM and resonate with many of the characteristics indicative of a true theorist. These characteristics, however, have certainly been developed as a product of the complex and challenging requirements of GTM. Some of those challenges will be discussed here.

The primary challenge⁵³ faced in the practice of GTM is in maintaining objectivity and separating from preconceived theoretical notions. Whilst it is possible to do this, the reality of doing so feels uncomfortable. As a researcher, our interest in identifying, expanding upon, and solving problems, ordinarily means having a curious nature. GTM necessitates focusing curiosity into the data and allowing the data to lead. Speculating or hypothesising outside of the data – and by extension, before data has been collected – can weaken the theory. Practising this and removing oneself from the excitement of debating possibilities takes a great deal of self-discipline. At times, this can feel as though one is being intellectually blunted. In discursive settings, it can also feel as though one is being obtuse or ill-informed about one's own research. Many times over the course of the research, I have had the delight of engaging with those interested in the subject who, naturally, share their own hypotheses ranging from, i.e. "it's all bias", to "I knew as a baby who to stay away from, so you're definitely born with it."⁵⁴ Acting as an objective facilitator who could not hypothesise or validate their thoughts often caused frustration; frustrations that were often internally laden by the underlying requirement to self-critique to ensure objectivity. In practice, it is possible to achieve the necessary researcher standards stipulated by GTM; however, I found myself acknowledging how these demands may seem unrealistic. The very separation of the researcher from a position of bias or assumption and how reasonable it is to assume that can be practised effectively is, of course, the catalyst for the separation of Glaser and Strauss. On reflection, I do believe it possible, although I empathise with Strauss' position more readily, particularly regarding disciplinary influence.

⁵³In the opinion of this researcher.

⁵⁴Paraphrased quotes from various social conversations outside of the data corpus.

For example, I cannot help but notice the relationship between the paradigmatic frameworks and the respective ‘disciplines’ with which they are associated, and the original disciplinary interests of the scholars who each developed the competing methodologies. Despite their each identifying as ‘sociologists’, Glaser, Strauss, and Charmaz’s backgrounds each lean towards particular interdisciplinary aspects of sociology, it could be argued. Glaser, with experience as a psychoanalyst, published his PhD dissertation on ‘Organizational scientists: Their professional careers’, in which he reviewed medical functions⁵⁵ infamously leaning towards positivist frameworks. Strauss, a committed sociologist, formulated a dissertation on the concept of attitude⁵⁶ and cemented his place firmly as a ‘symbolic interactionist’. Charmaz was rooted in arguably the most subjective forms of sociological study as a proponent of constructivism and the emphasised the importance of conducting ethnographic research, entitling her thesis, ‘Time and identity: The shaping of selves of the chronically ill’⁵⁷. One might argue that each researcher appears to align with different positions along the paradigmatic spectrum and may have been influenced by their disciplinary interests and origins. Similarly, it personally holds that as a researcher with a background in both criminology and psychology, my research predisposition may fall closer to that of Glaser in adopting more of an objective stance resultant of my disciplinary standard. Furthermore, on conducting the ‘Learning Style Inventory’ (LSI) proposed by Kolb (1985), I am identified as an ‘assimilator’. Assimilators in the LSI context are persons for whom the “dominant learning abilities are abstract conceptualisation and reflective observation. The greatest strength of this orientation lies in inductive reasoning and the ability to create theoretical models, in assimilating disparate observations into an integrated explanation” (p. 78). This learning style seems particularly aligned, more so than all others, to the (‘Classic’) GTM approach; however, my being of this learning style creates a subjectivity that I cannot separate from, whilst also separating me from others. Therefore, I feel it unreasonable to assume that one can practise Classic GTM with complete objectivity. Instead, if all other criteria are met – i.e. not holding ‘insider’ status, not being personally affected by the research outcomes, etc. – one must be prepared to acknowledge inherent subjectivities and commit unyieldingly to undertake the work and critical reflexivity necessary to overcome these limitations.

⁵⁵Social Science Space. (2022, February 24). Barney Glaser (1930–2022): The guardian of grounded theory. Social Science Space. <https://www.socialsciencespace.com/2022/02/barney-glaser-1930-2022-the-guardian-of-grounded-theory/>

⁵⁶Sociology Department, University of California, San Francisco. (n.d.). Curriculum vitae: Anselm L. Strauss. University of California, San Francisco. <https://sociology.ucsf.edu/sites/sociology.ucsf.edu/files/StraussCV.pdf>

⁵⁷ Charmaz, K. (1973). Time and identity: The shaping of selves of the chronically ill (PhD dissertation). University of California, San Francisco, CA.

If successful in practising objectivity, new challenges are introduced, particularly those concerning informed consent. As previously discussed, part of the informed consent process involves sharing with participants the anticipated applications of the research. By asking the researcher to remove themselves from hypothesising or speculating on the theoretical outcomes, one could argue that the researcher may not know all potential avenues of inquiry and, in kind, the scope of potential outcomes. This raises an ethical question around informed consent and the impact of research, which, unless recognised and addressed early, can prove problematic. Thankfully, owing to engagement with the topic, it became standard practice within this research to explain this dilemma and the unknown outcomes of the research to the participants prior to their participation. Integrating this into the informed consent process allows participants to engage in open and transparent communication, key to maintaining ethical practices. It also emphasised the importance of communicating findings to participants upon research completion to ensure their participation was respected and valued. This approach highlights an inescapable ethical and methodological commitment within grounded theory methodology: the acceptance of ambiguity. The acceptance of uncertainty requires considerable self-work, careful communication with participants, stringent application of ethical guidelines, and transparency regarding theoretical development and the unpredictability of outcomes – which, although challenging, are pivotal in developing researchers.

On reflection, GTM is one of the few methodologies that is uniquely designed for the development of theory, removed of personal or professional influence and bias, and sensitive to the intricate and hidden processes concerning both basic social processes and basic psychological social processes. In this regard, it is highly valuable to the analysis of human behaviour. If a researcher is willing to commit to near-constant critical self-evaluation and hold firm against temptations to construct emergent concepts around (sub-)conscious assumptions, then the benefits of employing GTM are vast and unrivalled.

3.6 Limitations

Limitations applicable to this research can be divided into two main categories: (1) methodological, and (2) conceptual. The former concerns limitations resulting from the choice of methodology, and the latter, limitations concerning the conceptualisation of the theory itself.

Conceptually, using GTM receives criticisms that can be reduced to the nature of subjectivism. A central debate between proponents of quantitative methodology versus qualitative is that of validity, and the proposition that without the inclusion of an objective reality (scientific data), all other findings have validity concerns. Due consideration of Hammersley's (1992) attempt to reframe validity as confidence, as opposed to objective truth, has allowed for subtle realist perspectives to be validated under a set of criteria. However, this is not without necessary consideration of ethical limitations in interpretivist works, which Smith (1990) argues is more problematic than epistemological concerns. As stated, this thesis adopts a critical realist perspective and draws upon theories that are underpinned by objective measures

(neuroanatomical structure and physiological processes). The inclusion of this literature in the retroductive analysis of findings somewhat addresses concerns otherwise faced by pure interpretivists. However, the interpretation of the concepts derived remains subject to substantive validation by the researcher and the underlying biases or empirical interpretations that may be present. In anticipation of this criticism, reflexive practice was employed throughout, and this thesis has demonstrated scrupulous adherence to methodological traditions. Despite this, it would be remiss to suggest that researchers are able to maintain absolute objectivity in the conduct and assessment of research, and to that end, it may be the case that the conceptual components of the theory have been identified subject to unavoidable researcher bias. This does not, however, invalidate the substantive theory proposed, and the nature of grounded theory insists on future revisions that may alter the theory further.

Another potential limitation is that concerning the sample, and whether only those who recognise the existence of the phenomenon would volunteer for participation. This may have introduced a sampling bias, and/or encouraged assumptions that TCN was more prevalent as a phenomenon than truly existed – being represented in the data in specific forms and limiting the representation of more varied experiences. However, of the officers who participated, a number expressed that they themselves did not feel they exhibited TCN but recognised it in colleagues; or they highlighted how they once did not exhibit TCN and offered a developmental narrative. Furthermore, in later phases of the research, participants were selected based on recommendations and performance records, thereby reducing the degree of self-selection. While some self-selection remained, it was not considered problematic. It is also important to recognise that the research sought to understand what TCN is perceived to be and how it may develop in individuals that recognise its existence, necessitating a focus on those who experienced it rather than those who did not. Consequently, the sampling approach was deemed appropriate to meet the research objectives.

3.7 Data Review

This subsection provides an overview of the data collection process and the data that has been collected. As is conventional in the presentation of grounded theory, findings from the data will be included as a forthcoming theory based on the emergent categories. How those categories emerged from the data and the data collection processes that were followed will be discussed within this section.

3.7.1 Interview Questions

The interview questions were designed around the research objectives, recapped below. The objectives were to:

- i) Provide a definition of 'The Copper's Nose'

ii) Understand the presentations and manifestations of 'The Copper's Nose'

iii) Propose potential retroductive explanations for the formation, development, and presentation of 'The Copper's Nose'

As underpinned by grounded theory methodology, it is necessary to adopt an open, flexible, and iterative process of data collection, led by emergent findings. However, to ensure the correct data was being collected – sensitive to both the context and topic of investigation – and to facilitate comparative analysis, a number of questions (labelled 'primary' questions) were non-negotiable for inclusion, e.g. 'How would you define TCN?'. It was essential to remain cognisant of the questions being asked, ensuring that primary questions were not modified into leading ones as data emerged, nor altered so significantly that they no longer reflected the original research objectives. Within grounded theory, it is acceptable (and expected) to add questions and to review and amend the question set iteratively, based on theoretical emergence. For clarity, altered or added questions within the data set will henceforth be labelled as 'secondary' questions.

The design of interview questions is critical in ensuring research is reliable, valid, and provides depth of findings from which a rigorous theory can be generated (Merriam & Tisdell, 2015). Interview questions must align with the research objectives to ensure consistency and focus are maintained throughout the research process (Kvale & Brinkmann, 2009). Where questions are misaligned with the research objectives, this can introduce bias, weaken findings, and may lead to questions about the research's integrity (Patton, 2014). Additionally, pilot testing interview questions is often recommended to ensure clarity, reduce ambiguity, and check that the questions elicit responses that align with the research objectives (Turner, 2010). This preparatory step – conducted here – allows for refinement and ensures questions are accessible while facilitating an open exchange of information.

Effective derivation of interview questions typically involves reviewing the observation under examination to identify contextual factors, settings of occurrence, and to gain a more thorough understanding of the scope of enquiry (Creswell & Poth, 2016). This process not only helps ground the questions according to the paradigmatic approach but also provides a framework that guides the formulation of questions specific to the unique context of the study. For instance, Spradley's (1979) typology of descriptive, structural, and contrast questions is a frequently cited framework that offers varied question types to capture different dimensions of a participant's worldview. In this context, descriptive questions are those that encourage a participant to share their most ubiquitous experiences in greater detail, allowing the researcher deeper insight into how they organise and perceive their reality. Often, questions of this nature focus on requests to describe events or occurrences in broader terms, maximising flexibility and freedom of response (Spradley, 1979). In works of grounded theory, this type of question is particularly valuable, noting the methodological importance of establishing context. Alongside descriptive questions, structural questions are also encouraged. These types of

questions are posed to elucidate a participant's relationship with a concept or within a particular contextual setting. Questions might request details on how participants prioritise their work, or, in the case of professionals, how they navigate their workload. The aim here is to identify patterns and themes that relate to how a participant organises and classifies aspects of their reality. Researchers can gain significant insight as a result by uncovering internal or contextual structures through which a researcher can identify relationships, correlations, and causations. Lastly, contrast questions ought to be used to illuminate distinctions and comparisons between participants' experiences, approaches, and emergent categories. They are most effectively employed when used in follow-up to structural questions, exploring the meaning of specific terms or concepts that may have been mentioned in participant accounts. For example, where a particular structural component has been referenced, contrast questions may probe how that component differs from another. Utilising this type of question allows the researcher to gain an appreciation of the layered nuances of a phenomenon, which can facilitate deeper implicit insight and more accurate analysis (see: Spradley, 1979).

Spradley's guidance is progressive in its approach, ensuring development from shallower forms of narrative to meaning-focused and context-dependent accounts. Sequencing questions according to typology can aid in building rapport and complement efforts to generate perceptual and categorical insight, as well as those that are descriptive in nature. The systematic approach outlined allows for greater confidence in minimising researcher influence and provides a consistent and comparable basis for data collection. Included in the forthcoming section is a dossier of the primary questions, designed in line with both the research objectives and Spradley's guidance.

3.7.1.1 Primary Question Set

i) Have you heard of The Copper's Nose (TCN)?

If yes, what would you define it as? If no, do you recognise the term 'policing sixth sense', and what would you define it as?

ii) Could you provide an anecdotal example of TCN in practice?

iii) How do you see it being used in policing practice? Could you tell me about how you or colleagues may have used or employed it in practice?

iv) What are the defining characteristics of TCN to you (either in thought, behaviour, feeling, etc)?

v) What value do you place on TCN, or how valuable do you believe it to be (in the practice of policing)?

vi) Do you believe some officers can have a 'better' or 'worse' TCN than others? N.B.: 'Better' or 'worse' to be determined by the officer, and asked how they are defining it.

If yes, why?

vii) Does an officer's TCN (whether 'good' or 'bad') affect your motivation or desire to work or be crewed with them?

If yes, why?

viii) Where, or how, do you believe TCN originates and develops? Why do you believe that?

ix) Do you believe TCN can be 'taught' or developed further? If yes, how might that work in practice?

x) How do you view the relationship between TCN and EBP? What conflicts or complements do you foresee? Do they enhance or hinder each other? N.B.: Ask for an anecdotal example in practice, where relevant.

3.7.2 Phase 1

Phase 1 consisted of 38 interviews which lasted approximately 45 minutes per interview. The longest interview lasted 1 hour and 22 minutes, and the shortest interview lasted 29 minutes. The interviews underwent a process of familiarisation⁵⁸ throughout the collection process and were transcribed concurrently with memos constructed around the emergent themes. The coding process for Phase 1 generated 1785 separate data incidents categorised into 34 thematic codes and 11 integrated sub-categories.

3.7.2.1 Reviewing Phase 1

At the end of Phase 1 collection and analysis, the data were reviewed, and any notable omissions in the question set were redressed. As will become clear in the forthcoming theoretical discussion, an emergent theme from Phase 1 was a distinction between officer specialisms (Proactive, Detective, Response), which became integral to the narratives in reference to context, approach, development, and the use of TCN. To explore this theme in more depth and to contextualise the data, it was determined that the question set would require amendment for Phase 2 to include a dedicated question about the participants' career experience to date.

Similarly, participants frequently discussed notions of 'life experience', referring to themselves or others, often in response to question VI (disparity between officers' TCN). To examine this factor further, a dedicated question regarding the participant's own life experience, prior to or alongside policing, was added for Phase 2. This was implemented alongside an additional

⁵⁸Consisting of repeated listening and review.

question relating to an officer's perceptual self-efficacy of TCN, complementing the existing question which focused on the identification of TCN in colleagues.

Also, within the Phase 1 review was a critique of the thematic codes. As Glaser (2013) emphasises, to remain true to Classic Grounded Theory, one must be cautious of labelling thematic codes in descriptive terms. Instead, one ought to review thematic codes iteratively and amend any descriptive codes to categories that reflect broader concepts – often those ending in -'ing'.

3.7.3 Phase 2

Phase 2 consisted of 18 interviews which generated 349 additional coding incidents. The question set remained broadly unchanged with the inclusion of three new focused questions (secondary questions).

3.7.3.1 Reviewing Phase 2

Following Phase 2, many of the primary questions had reached thematic saturation. Increasingly – as will be discussed in the forthcoming discussion – the physical (visceral and somatic) sensations and presentations of TCN became a key theme. As narratives were reviewed, the phenomenological complexity and nuances within these accounts warranted further exploration, focusing on officers who referenced more acute presentations of TCN. Therefore, in the planning of Phase 3, sampling was altered to focus on re-interviews of earlier participants and the inclusion of new participants based on their professional specialisms. Of particular interest were those who had undertaken a significant amount of proactivity⁵⁹ within current or former roles, where reports of visceral and somatic associations with TCN had been most reported in earlier phases. To counteract sampling bias, all officers who were in proactive roles, or had been in proactive roles for the majority of their careers⁶⁰, were categorised separately. A randomiser was then applied to determine which participants would be approached for re-interview. Additionally, proactive teams⁶¹ within partner forces were asked to share the research with their specialist officers with an invitation to participate. Interviews then occurred until theoretical saturation had been reached.

3.7.4 Phase 3

Phase 3 consisted of 10 interviews generating an additional 111 coded incidents. At this stage of the research, the coding matrix had been amended to reflect the emergent core concepts

⁵⁹Defined herein as roles that prioritise preventive strategies through independent or task-force operations, targeting high-risk areas, individuals, and groups, to deter crime (often serious, organised, and high-harm).

⁶⁰Calculated on a per-officer basis.

⁶¹Including covert units.

that encompasses the phenomenon. An overview of these concept categories will be provided in the forthcoming chapter. To focus on the emerging themes requiring further exploration, the question set was amended to focus on these specific themes. Where participants were re-interviewees (six participants), they were asked only the secondary questions after a recap of the purpose of research and the contribution of their earlier participation had been discussed, along with a new declaration of consent. Where participants were new to the study (four participants), they were asked the primary questions, plus the secondary questions.

3.7.4.1 Reviewing Phase 3

Theoretical saturation of the phenomenon was deemed to have been reached at the end of Phase 3. The interviews provided no new or additional insights in response to either the primary or secondary questions.

To add contextual awareness, Chief Constables of the contributing forces were approached for interview to round out the research. Interviewing Chiefs was deemed beneficial owing to the research's requirement for organisational and cultural insight. The culture of policing is often influenced by the day-to-day practices and policies embedded or enacted by senior leaders. Engaging with leaders within the profession to ask about the phenomenon may elucidate the nuances of concerns regarding its application and freedom of use, both of which were areas of investigation within the research. By incorporating leadership insights, the research would gain a well-rounded contextual understanding of the institutional dynamics, values, and constraints, which would ground the resulting theory in more robust, real-world practicalities. Furthermore, interviews of this type can act as a form of triangulation, enriching the research with comprehensive accounts and corroborating findings and emergent theories more comprehensively across all 'levels' and forms of policing. This adds credibility to a substantive theory as perspectives across the contextual setting are provided, highlighting consistencies or disparities within the cultural narrative. By closing data collection with insights from senior leaders, the resulting grounded theory is better positioned to suggest well-reasoned policy and practice implications, potential applications, and avenues for future research.

3.7.5 Phase 4

Phase 4 consisted of three interviews with the Chief Constables of the forces with the highest rates of participation. Their demographics will not be provided herein, as the population of Chief Constables is sufficiently modest that sharing their demographics may make them identifiable and breach anonymity agreements. The three interviews did not differ in their narratives, and each corroborated the core thematic categories that had emerged within the wider data set. The completion of these interviews marked the end of fieldwork.

4. The Theory: An Overview

This is the first of four chapters which outline the substantive grounded theory of 'The Copper's Nose' – the main research contribution. The chapter herein begins by providing a framing through which the theory ought to be interpreted before outlining the emergent core concepts. Thereafter, a comprehensive theoretical summary is offered before exploring each of the core concepts as they emerged in adherence to GTM. In the chapters that follow, each of these concepts are discussed, supported by excerpts from the data.

4.1 Framing the Theory

This thesis set out to explore 'The Copper's Nose'. At research conception, it was not hypothesised what TCN was, why it occurred, or how it came to be, based on adherence to stipulations contained within GTM. The results present a complex picture of possibilities, many of which warrant further research. The forthcoming theory is proposed as a substantive theory and may be updated in due course⁶². It is therefore not intended to be read as a finalised formal theory.

Whilst GTM ordinarily demands the identification of a single core category, the methodology was articulated from works within the health and social care setting (Glaser & Strauss, 1967). In later works, Glaser re-emphasises that the priority of GTM is to establish a coherent and integrated theory and accepts that flexibility regarding adherence to a single core category is warranted (Glaser, 1978, 1992). Aligned with this is the understanding that GTM may be used outside the health and social care setting, where identifying a 'concern' (or concerns) may not be the principal aim of research. Instead, in cases where researchers are focused on the discovery of a phenomenon, it may be necessary to identify multiple core categories that each elucidate interconnected but distinct components of the phenomenon that hold equal importance to establishing a theoretical understanding (Glaser, 1978, 1992). For example, in the case of this thesis, TCN bears multiple considerations: what TCN is (its presentation), how it comes to be (its development), and how it is used (its applications). These dimensions are intrinsically interconnected, and each contributes valuably to a comprehensive understanding of the phenomenon. Arguably, answering the question of 'what' TCN is, without discussing its potential origins or applications, leaves a theoretical omission. Instead, the complexity of investigating a nuanced phenomenon requires, in this case, the use of three core categories that each inform the fundamental components of TCN.

The concepts presented have emerged from strict adherence to Classic Grounded Theory methodology, as previously covered. When presenting the theory, Glaser (1998) recommends the use of excerpts from the data to provide illustrative support for the theory whilst ensuring readability is not hindered. With this in mind, the core concepts and the subcategories proposed will be supported by data incidents in the form of excerpts from the data set and

⁶²As GTM also dictates.

referenced according to their relevant code, e.g. P01F01. It is important to note that where excerpts are included, their purpose is purely illustrative to support theoretical emergence and not for the purpose of providing conceptual qualification. For readability, as the concepts represent specific named entities as opposed to referring to the common usage of the same word, they will be capitalised throughout, e.g. 'Mediating' as opposed to 'mediating'.

4.1.1 Theoretical Validation

Demonstrating a scrupulous commitment to methodological rigour necessitates evaluating the emergent substantive theory against the criteria stipulated by Classic Grounded Theory Methodology. Glaser emphasised that a theory's quality lies in its meeting specific criteria measuring applicability and validity within the context of exploration. These criteria cover fit, relevance, workability, and modifiability.

Fit refers to the extent to which the theory is underpinned by relevant data. Glaser (1992, p. 15) stated: "Fit is achieved when concepts earn their way into the theory by being constantly compared to the data and modified to ensure their relevance". Glaser also argued that, to fit, a theory must be iteratively formed to ensure it does not arise from a preconceived hypothesis. This bottom-up approach ensures theoretical validity insofar as the theory reflects the phenomenon of interest (Glaser, 1978). To this end, the elements of the theory presented have been derived from the phases of data, demonstrating amendments to the question set considering emergent concepts to maintain appropriate fit.

Relevance refers to the prioritisation of theoretical insights that resonate with and are applicable to participants' lived experiences. Relevance arises organically when researchers remain open-minded to the emerging core concepts, being mindful not to dismiss speculative possibilities owing to their complexity of understanding. Unlike other theoretical methodologies that might focus on academic or external measures of validation, a substantive grounded theory must focus on the specific components of the phenomenon, even where difficulty presents. Glaser states, "A theory is relevant when it captures the concerns and realities of the participants, allowing them to see themselves and their processes in the theory" (Glaser, 1978, p. 93).

Workability pertains to the explanatory power of the theory and how it might contribute to predictive or practical application(s). Glaser emphasised that a substantive theory ought to provide a speculative 'how and why' for contributions to postulations of the theory, which could benefit potential future research and outcomes. Workability, in this context, fundamentally refers to the practical offerings beyond the research setting. In his 1998 works, Glaser wrote, "Workability ensures that a theory is not just an abstract construct, but a practical tool for understanding and solving the real-world problems identified in the research" (p. 236).

Modifiability, particularly regarding substantive theories, ensures that any theory proposed remains open to refinement as new or future data emerges. Remaining critical of rigid or

deductive approaches that merely exist to verify, Glaser highlighted the importance of allowing revisions of the theory, both in its development and after positing, to maintain its relevance and accuracy. He contributed, “Grounded theory is never static; its strength lies in its modifiability. New data must always have the power to reshape the theory” (Glaser, 1992, p. 43).

The criteria stated have been referred to iteratively throughout the emergence and write-up of the proposed theory. Where possible, discussions are framed with this in mind.

4.2 Theoretical Summary

The theory herein is proposed as a ‘substantive grounded theory’ elucidating a unique phenomenon. Through the application of GTM, the theory identifies three primary ‘core’ concept categories – Mediating, Updating, and Navigating – which are supported by descriptive subcategories. These interconnected components provide a comprehensive explanation of the presentation, development, and application of TCN, situating it as an adaptive cognitive mechanism and socially influenced phenomenon within the policing context.

The theory postulates the possible mechanistic and contributory elements underpinning ‘The Copper’s Nose’ (TCN). Presenting as a context-dependent mediator, TCN represents the instinctual capacity attributed to police officers that assists in their ability to detect subtle and ambiguous environmental cues and policing-relevant stimuli. Its function assists in an officer’s ability to make quick assessments that align with their role motivations and perceptual purpose within complex operational situations. Central to TCN are the emergent concepts of Mediating, Updating, and Navigating. These processes interact and collectively contribute to an officer’s ability to adapt and respond to challenges within their professional roles while reconciling individual instincts with organisational or operational mandates.

As a Mediator, the function of TCN involves the subconscious and conscious integration of sensory input (salient stimuli), somatic markers (visceral sensations), and cognitive heuristic judgements (intuition), resulting in the ability to detect and interpret relevant stimuli in the environment. This process is grounded in neurological, physiological, and cognitive capacities, filtering irrelevant sensory and environmental information whilst prioritising stimuli carrying operational and context-specific significance. Presentations of TCN occur with a phenomenological specificity: a unique psychosomatic experience occurring subconsciously which demands heightened attention towards particular environmental cues. For example, in practice, this may include an officer ‘suddenly noticing something’, experiencing feelings of engagement and perceptual increases in catecholamines such as adrenaline, accompanied by visceral sensations, e.g. ‘upturned hairs on the back of the neck’, and an overwhelming sense that ‘something doesn’t feel right’. Combined, these components – which are closely linked to threat perception – act as an indicator, prompting subsequent cognitive engagement.

An officer's experiences – both within and prior to policing – can contribute to their sensory and perceptual abilities concerned with TCN, where repeated exposures to policing-relevant environments assist in subconscious pattern recognition and the ability to 'read' the environment more accurately. For example, officers with a greater level of proactive experience may develop a heightened ability – compared to that of inexperienced colleagues or non-policing counterparts – to detect subtle cues of criminal intent within the immediate environment; an ability that is often characterised by an inability to articulate but is deeply influential in practice and measures of professional 'success'. The TCN, as a mediator, is therefore an acute mechanism balancing internal predispositions, professional exposures, and the demands (sensory, cognitive, and practical) of the policing context and environment.

As TCN develops, it updates through dynamic processes that allow an officer to refine their assessments of situations and policing-relevant contexts based on situational exposure, the learning environment, and the utilisation of particular mindsets and personality traits. Within the context of TCN, this process of Updating involves the cyclical recalibration of instincts and heuristic biases to remain effective in the policing environment, subject to an officer's policing specialism. Updating is heavily influenced by dynamic factors: the development of tacit knowledge; feedback mechanisms (active mentorship, self-evaluation, etc.); and levels of engagement and motivation. The Updating process is particularly effective in complex or evolving situations, which provide greater breadth and depth of exposure and experience. As officers learn to attune themselves to somatic markers (e.g. gut feelings) that indicate the presence of relevant stimuli, they engage in processes of development alongside theories of embodied cognition, where somatic feedback acts as a non-verbal form of situational intelligence. By engaging in reflective practices and incorporating feedback from experience, officers refine their TCN over time and sharpen its presence as an indicator mediating between the officer and environmental cues relevant to policing contexts.

When TCN presents, officers undertake navigational processes deliberating between their formed beliefs about a situation prompted by TCN and the scope to act upon it. Navigating between multiple factors present within the real-world context – i.e., operational constraints, the likelihood of negative repercussions, and a persistent belief about the situation – this process is critical in understanding how officers manage conflicts in their personal and professional capacities and exercise discretionary practices. Recognising that officers may find themselves in situations where judgements arising from TCN may conflict with organisational mandates or instructions, officers engage in a process of reconciliation regarding their sense of professional duty. Navigating between their intrinsic and extrinsic 'purpose', risk assessments, and adherence to organisational culture and protocol, officers negotiate between their perceptual position as an officer and situate themselves accordingly within the wider context of policing. This tension is fundamental to understanding the applications and impacts of TCN within the framework of contemporary policing.

The interplay between Mediating, Updating, and Navigating – representing the processes of presentation, development, and application of TCN – highlights the complexity and specificity present in the phenomenon. Mediating provides functional assistance in the detection of critical information; Updating refines officer ability based on experience, exposure, and feedback; and Navigating illuminates how these context-dependent insights may be applied alongside competing demands. As officers experience the biopsychological, cognitive, and social components of the phenomenon, the processes embedded within it provide an iterative, cyclical, and dynamic feedback loop that allows officers to adapt to the demands of policing.

Advancing a theory that elucidates the multilayered nuances of a policing phenomenon (TCN), implications for its existence are posited. Calling for structured opportunities to develop and refine TCN through scenario-based training, greater embedment with experienced officers, engagement with active mentors, and encouragement of reflexive practice, the integration of TCN into formal evaluation processes could address the gap between instinctual practice and organisational accountability. In doing so, officers are afforded greater levels of support in their application of judgement whilst remaining aligned with professional standards and increasing oversight for an otherwise opaque phenomenon.

4.2.1 Core Concept: Mediating

The first core category is that of '*Mediating*'. This category refers to the constitution of TCN: its essence, presentations, and unifying definition. The defining function of TCN is its ability to mediate between an officer's internal and external realities and experiences, heightening attentional focus and aligning an officer's subconscious instincts with perceptions of the external environment to enhance their understanding within the professional context. As a mediator, TCN performs a dynamic and revisional function in the perception of and attendance to stimuli that trigger specific actions, responses, and ongoing processes. The concept of Mediating can be divided into the subcategories of Perceiving, Attending, Interpreting, and Assessing: functions which can be explored further within GTM's coding framework to deepen the theoretical understanding of the core category.

Perceiving, the initial phase of TCN's presentation as a mediator, involves the detection of environmental and situational stimuli. Shaped by biophysiological and neuropsychological factors – including the mechanisms of sensory perception and interoception – Perceiving allows an officer to detect subtle, ambiguous, and overt cues within the environment, triggering further processes.

Attending refers to the heightened attentional focus that is applied upon perceiving relevant stimuli. By focusing cognitive and physiological resources to sharpen situational awareness, attention is narrowed towards critical aspects that assist in an officer's understanding, whilst distractions are filtered out.

Interpreting begins the process of cognitive evaluation, where stimuli are synthesised into actionable understanding. By applying tacit knowledge and contextual frameworks, officers interpret the stimuli within the environment, drawing upon established 'norms' within the expected situational pattern.

Assessing, as the final process within Mediating, integrates an officer's perception into beliefs, revising evaluations and informing decisions. Refining and reframing an officer's understanding of a situation based on new information prompted by the processes of Attending and Interpreting, officers update their beliefs and hypotheses accordingly.

Mediating, alongside the concept subcategories of Perceiving, Attending, Interpreting, and Assessing, presents as a cyclical framework that defines how TCN mediates between the officer and a situation or immediate environment. Perceiving relates to the identification of relevant cues that act as seminal triggers; Attending sharpens focus and directs cognitive resources to the percept; Interpreting engages wider cognitive processes to apply sense-making and belief formation to the percept; and Assessing integrates this information dynamically into actionable understanding, revising the former processes as necessary. This cyclical process highlights TCN's primary identity and function as a context-dependent mediator, dynamically shaping how officers perceive, interpret, assess, and respond to situational and environmental stimuli. It positions TCN as an active and iterative biopsychological mechanism essential to officer function.

4.2.2. Core Concept: Updating

The second core concept is that of '*Updating*'. This category refers to the genesis of TCN: its proposed origins and developments, focusing on how it comes to be, inclusive of the (retroductively analysed) mechanisms and processes that contribute to its formation and presentation. The subcategories of Experiencing, Learning, Engaging, and Trusting encapsulate the broader core concept of Updating, which is theorised as being central to the development of TCN. In this context, Updating refers to the process by which officers develop, refine, adapt, and enhance their instinctual abilities and situational awareness in dynamic policing contexts. Whilst TCN functions as a mediator, Updating explains the framework through which TCN is constructed and refined.

Experiencing, as a subcategory, highlights the cumulative influence of experience on an officer's TCN development. Officers rely on their personal and life experiences, alongside professional knowledge, to discern patterns in situations and environments. This process is shaped by prior learning and complemented by interoceptive awareness, such as recognising visceral sensations that signal attentional relevance within the policing context.

Learning complements this process by referring to the assimilation of experiential knowledge to refine TCN. Encompassing predictive models and the influence of active mentorship,

officers iteratively update their situational understanding to form beliefs that are more accurate to their perceptual reality.

Engaging recognises the importance of active participation, motivation, and relational dynamics as contributors to the development of TCN. Officers who actively engage with learning and development opportunities, and who are themselves engaged with by experienced colleagues, are seen to exhibit faster and more robust development of TCN.

Trusting, as an important mechanism promoting action, marks the culmination of the Updating process. As officers build confidence in TCN through successful application, they engage in revisional processes ('trial and error') increasing their reliance upon TCN as a mediator, further influencing its development.

Updating is understood as a core process through which TCN develops, evolves, and maintains its effectiveness in policing. Whilst TCN can be ascribed the role of mediator – bridging an officer's internal perceptions with their external environments – Updating explains how TCN is constructed and refined within each officer. This distinction highlights that the nature of Updating is underpinned by its contribution as a dynamic and iterative mechanism.

Key features of the process reflect iterative and cyclical refinements that allow TCN to adapt and develop over time, including:

- the individualised experience of TCN, reflecting an officer's unique life experiences, professional exposures, and physiological sensitivities;
- the impact of organisational demands and the contributions of colleagues in sharing professional knowledge; and
- the importance of predictive processing and learning models that resolve conflicts between perception and interpretation, sharpening an officer's ability to assess situational cues.

Through the Updating components of Experiencing, Learning, Engaging, and Trusting, TCN remains adaptable to variable and evolving policing contexts and responsive to the inherent complexities of challenges in policing. In its simplest form, Updating represents the mechanisms of adaptation that underpin and develop TCN in each officer, where TCN functions as both the framework and the product of these processes.

4.2.3 Core Concept: Navigating

The third core concept is that of '*Navigating*'. This category refers to the application(s) of TCN: how officers operate alongside or with TCN within the policing context. Unlike the previous core concepts, which are presented as process-oriented and consist of sociopsychological components of the phenomenological experience associated with TCN, Navigating reflects the series of concerns and considerations that officers apply in operationalising TCN. Navigating can be considered an adjacent function of TCN, reflecting an officer's ability to navigate the

multifaceted terrain of policing as it influences their application of TCN. Encompassing the use of powers, the influence of societal dynamics, the organisational culture and expectations, and adherence to policing or organisational priorities, Navigating captures the ongoing process of balancing an officer's sense of self (personally and professionally) with their sense of purpose within the wider context. The subcategories reflecting these processes include Positioning, Situating, and Negotiating, which encompass persistent areas of concern that shape how an officer comes to operate within their role and acts upon presentations of TCN.

Positioning reflects the inward-focused processes concerning how an officer evaluates and positions their own TCN relative to their colleagues and former self.

Situating shifts this focus outwardly, highlighting how officers align their perceptions of self with the broader organisational culture and situational frameworks, e.g. whether their TCN can be relied upon, specific to the situation.

Negotiating represents the deliberations and conflicts an officer undergoes when navigating competing or opposing priorities in the operationalisation of TCN. This includes notions of 'duty', personal motivations, and organisational taskings and priorities, reflecting the process of reconciliation between TCN and the broader organisational, operational, and external demands of the role.

Navigating fundamentally represents an officer's ability to position themselves within overlapping frameworks of their professional environment, societal expectations, and individual judgements. In other words, it is not solely about navigating external contexts, but about relational positioning ('Positioning') – illuminating how officers evaluate their abilities alongside those of their colleagues; evaluating (or 'Situating') their purpose within wider policing and societal systems and structures; and reconciling ('Negotiating') between their sense of purpose and motivation as an officer with complementary or oppositional directives that may present challenges to, or freedoms in, use.

Through this lens, Navigating captures both external and internal processes, such as officer assessments of their environment, their relationships with others (colleagues and the public), and the dynamic decisions demanded of them in the policing context. This concept integrates various concerns summarised as navigating police powers, procedures, and policy-driven mandates; navigating organisational dynamics and demands; navigating policing priorities; and navigating their sense of identity as a police officer (alongside the associated responsibilities of 'doing the job').

That which features within this category highlights the importance of adaptability, critical reflection, and decision-making in the dynamic context of policing. Navigating fundamentally addresses the fluidity of balance between assessing external factors against personal influences, reflecting the interplay between the existence of TCN as a highly personalised phenomenon (internal) and the wider, shared contexts of operation and application (external).

4.3 Example Data Incident

"It's definitely something I'll straight away recognise, and I think everybody in the force knows the other people that have it, if that makes sense. And, as I'm sure you've probably already, like, encountered, it's probably quite a hard thing to explain or put your finger on because it's very subjective and it's different for every single person, but I don't think it's something that you can teach anybody really. I think you either have it or develop it over time ... or [you] don't ... I think it's probably something you either have or you don't, but it'll get better over time. So you might have like a little bit of an instinct for it early on, but I think as your career develops you just-, you pick up on signs easier and you trust your gut instinct a bit more perhaps. I think maybe some new officers are perhaps a little bit less confident to trust what's in their gut ... you know, the world nowadays, you have to explain everything really ... you have to have a reason for doing everything and with that context, it's then difficult to explain why you just followed your gut instinct because you can't really put it into words. You just knew something wasn't right or something feels wrong, and I think I've always done a lot of proactive policing in every role that I've done – especially now, which is all I do – and you know, it's just recognising that somebody isn't right where they are at the time." (Phase 2 Interviews > 2P02F35 Transcribed, p. 1)

The data incident above provides a rich example of much of the theoretical framework of TCN within a single officer statement. The incident discusses the Mediating, Updating, and Navigating components, while illustrating the heterogeneity and highly individualised nature of the phenomenon. It demonstrates the nuances of TCN as both an internalised and instinctual mechanism, as well as a socially embedded occurrence, revealing how officers frame this capacity within the context of policing.

The officer's description of a "gut instinct" aligns with TCN's function as a mediator between internal, subconscious perceptions and the resultant mechanisms with the external reality or situation. This instinctual "sense of knowing" is referenced and characterised by its indescribable nature, coupled with a strong sense of certainty despite this. The officer's emphasis on being "drawn to certain people/events" reflects the biopsychological foundations of the Perceiving and Attending subcategories, where subconscious environmental cues trigger attentional processes within the context-dependent settings in which TCN occurs. The process of Attending is evident in the officer's focus on the recognition of cues that are described in terms of "something isn't right". Prompting heightened attention, triggered by recognition of this perceptive interpretation, signals the officer to prioritise critical stimuli and disregard additional distractions, enhancing focus. Their mention of "recognising" speaks to the nature of Interpreting, where detected stimuli are translated into an understanding that something doesn't feel right. Furthermore, the inclusion of "feels" indicates a visceral or somatically linked presentation of TCN when triggered.

The officer's acknowledgement of their struggle to articulate or assign reasoning highlights the process of Assessing, where the perception and interpretation of stimuli are attended to in an attempt to form a situational determination without full conscious awareness of the cognitive processes involved. The belief formed subsequently manifests with certainty and a sense of 'knowing' that bypasses deliberative reasoning. The difficulty the officer experiences in explaining their resultant beliefs and actions reinforces the lack of cognitive engagement present in the presentation of TCN from the outset. Instead, more immediate conclusions are drawn based on a perception that has been attended to, interpreted, and assessed without the involvement of explicit or conscious processes.

Acknowledgement of the heterogeneity between officers' presentation and development of TCN offers significant insight into the Updating process. Describing TCN as something officers "just have", while explaining that others develop it over time, underscores the individualised nature of TCN development, which is shaped by experience both prior to and within policing. Judgements of this type additionally create implicit standards of professional capacity based on comparisons made between colleagues. Experiencing, as a key mechanism, is highlighted by the mention of repeated exposures to patterns in proactive policing settings, and underscores how cumulative on-the-job experience refines TCN's Mediating function. The mention of proactive policing serves as a key factor in the context-dependent nature of TCN, highlighting how certain 'types' of policing provide different and critical exposures that enhance situational awareness and pattern recognition relevant to specific contexts. Acknowledging that the learning process emerges through iterative feedback loops, the officer's suggestion that newer-in-service officers lack confidence reflects a developmental stage where experiential learning has not validated their perceptions and encouraged greater freedom of use. This aligns with the concept that TCN's development is embedded within tacit knowledge and is strengthened by an officer's confidence in their ability. Dismissing the notion that TCN can be formally taught reflects its intrinsic quality, which depends heavily on an individual's unique cumulative exposures. The perspective aligns with the theory's emphasis on phenomenological heterogeneity, highlighting nuanced micro-level differences in individuals' experiences of TCN.

Regarding Navigating and the application of TCN, the relational, contextual, and operational dimensions are evident in the data incident (example). The officer's delineation between newer-in-service officers and more experienced officers demonstrates the recognition of perceptual and measured differences between colleagues. Similarly, despite their explanation that confidence is perceived as growing with experience, they apply comparative measures between newer officers themselves, referencing how some demonstrate an innate ability that surpasses other colleagues across all levels. This relational positioning demonstrates how trust and collaboration between officers can be affected by the presentation of TCN. As an officer balances their TCN with external pressures or frameworks, statements such as "you have to have a reason for doing everything" reflect the ongoing tension and necessary

navigation between meeting societal and organisational demands for transparency and legitimacy, while also adhering to the notion of 'doing the job'. The outward-facing nature of this process exemplifies how officers situate their actions within broader systems, reconciling their decisions with professional credibility and acceptable standards. The data incident demonstrates how negotiation between these factors occurs cyclically and over time, often coupled with struggles to articulate and justify the subconscious nature of TCN and the approved practices within policing. Navigating these conflicts by drawing upon trust in one's abilities remains central to the sentiment. The mention of proactive policing additionally highlights the importance of specialisms and the relational dynamics perceived by an officer within the wider organisational and policing function, emphasising the heterogeneity of presentations and developmental mechanisms of TCN.

As an example, the data incident encapsulates the multifaceted nature of TCN, demonstrating its function as a context-dependent mediator. The incident reflects the unconscious nature of TCN as a mediator mechanised by a gut instinct that produces certainty without cognitive awareness or articulation. TCN is described as being shaped by experiencing and learning and is presented as a highly individualised concept resulting from variances in individuals and their experiences. The application of TCN is shrouded by the challenges of organisational and operational limitations, underscored by a process of internal deliberation measured against external expectations. Illustrating how TCN exists, develops, and operates as an individualised mechanism (mediating) and a socially embedded phenomenon (navigating) within adaptive environments (updating), TCN is described herein as enabling officers to converge subconscious perceptions with actionable understanding within policing.

5. Mediating

"It's the innate ability for police officers to look at a situation and get like a tummy feeling about what's going on, and because they're coppers and worldly and wise, you find that they are able to read into that situation or understand that situation without knowing too much about it, kinda thing. That gut-instinct type thing." (Phase 1 Interviews > P08F11 Transcribed, p. 1)

Mediating emerged as the central, core concept in understanding *what* The Copper's Nose is, how it presents, and its function within the context of policing. Conceptualised and defined herein as a context-dependent mediator between an officer and their environment, TCN moderates an individual's perception(s) of situational or environmental stimuli, demanding heightened attentional focus, and catalysing a process of situational analysis. This concept captures the integral role that TCN plays in triggering the assessment of an officer's immediate surroundings. Far from a passive presence, TCN presents as an all-encompassing entity, intertwined with an officer's life experiences and exposures, bridging the gap between an officer within their capacity as an individual, their professional responsibilities, and their immediate environment or situation. This chapter unpacks how TCN presents as a mediator, its associated phrases, and its primary characteristics, including the subcategories of Perceiving, Attending, Interpreting, and Assessing.

5.1 Perceiving

Perceiving involves the active detection and acknowledgement of environmental or situational stimuli where officers explicitly notice that something requires attention⁶³. It is not tied to one particular sensory modality and will often occur below the level of conscious awareness⁶⁴. This 'stage' is the first that is recognised in presentations of TCN.

"It's a bit like a gut instinct, I think. You just sometimes—, you see something and you just get a feel for it and it's nothing more than a feel, really ... TCN is just that gut instinct of, to put it in a very vernacular phrase, when you see a wrong'un or you see something wrong, you know it's wrong. You can't necessarily explain why, you just know it is." (Phase 2 Interviews > 2P01F14 Transcribed, p. 1)

Within the coding framework, the concept of Perceiving can be aligned to the specific coding families of process and dimension. Perceiving marks the entry-point and seminal stage of TCN, where an officer may commonly remark that "something isn't right"⁶⁵. As a 'trigger', this

⁶³"...[it's] your subconscious telling you, screaming out, "there's something here and you're not paying attention to it!" (Phase 1 Interviews > P01F08 Transcribed, p. 1)

⁶⁴"You clock it [stimuli] sometimes from before you've actually seen it --

⁶⁵"I think it's just a mixture of a lot of different things in someone's head, and the ability to ... just know that something isn't right or something is suspicious within your sort of vision or peripheral vision." (Phase 1 Interviews > P02F11 Transcribed, p. 1)

can be considered the seminal event in a sequence of biophysiological and neuropsychological processes that subsequently follow, such as autonomic signals. However, it is argued that there are underlying biophysiological and neuropsychological factors that contribute to an individual's unique perceptual abilities. Similarly, the intensity of Perceiving presents uniquely to each officer and within each situation⁶⁶. Perceiving, in this context, distinctly separates perceptions of overt and unambiguous cues that relate to explicit behaviours, and those which present as subtle or ambiguous cues⁶⁷. An officer's ability to perceive each of these dimensional elements influences how they come to attend, interpret, and assess (forthcoming concepts).

At the social level, as it relates to Basic Social Processes (BSP), Perceiving can be interpreted as 'Managing Situational Cues'. It involves the continual scanning, detection, and recognition of relevant environmental factors that contribute to an officer's situational awareness⁶⁸. This can include detecting atmospheric or dynamic cues⁶⁹, such as noticing changes in noise levels or movements within groups and crowds that may present as behavioural indicators; or individual micro-level cues, such as changes to body language⁷⁰. At the psychological level, as it relates to Basic Psychological Social Process(es) (BSP), Perceiving is intrinsically tied to 'Developing Intuitive Ability and Awareness'⁷¹. The process is heavily reliant upon an officer's exogenous (outside of) and endogenous (inside of) sensing abilities, where interoception contributes to the intensity of mediation. The emotional and cognitive integration of perceived stimuli and perceptions is crucial to the success of TCN as a

⁶⁶"If you're a police officer and you go around blinked, you're going to miss things and actually things could happen, consequences could happen because you're not actually opening your eyes about what's going on around you. You might miss someone who's vulnerable who needs someone to speak to, or you might miss a crime happening ... it's that first sort of key to things." (Phase 1 Interviews > P05F08 Transcribed, p. 1)

⁶⁷"It's literally, you see something, you hear something, and you're acting on it..." (Phase 1 Interviews > P09F08 Transcribed, p. 1)

⁶⁸"It's just knowing a certain situation; it's seeing something and you think something's not quite right." (Phase 3 Interviews > 3P05F11 Transcribed, p. 2)

⁶⁹"TCN, for me, is more around- where it's helpful, is when you're dealing with an incident, or dealing with a situation. So, it could be something like public order, where it just feels like something is going to go wrong ... you can feel the atmosphere. Now, there's nothing scientific around that, but you can feel it. There's something bubbling up." (Phase 1 Interviews > P02F17 Transcribed, p. 1)

⁷⁰"I'd say it's almost quite often it's probably 80% unconscious, a lot of the time. You just happen to find yourself getting drawn over to certain people, certain events." (Phase 1 Interviews > P11F08 Transcribed, p. 1)

⁷¹"You don't realise it when you're doing it, it just comes naturally." (Phase 1 Interviews > P02F14 Transcribed, p. 1)

mediator, mediating the ability to recognise situational stimuli and beginning a process of cyclical filtering and framing resultantly⁷².

5.2 Attending

Attending involves the allocation of neuropsychological resources to the processing of perceived stimuli. This element of TCN reflects the depth and intensity of focus (or attentional focus) that an officer brings to understanding what they have perceived. As perceptions can take the form of either conscious or unconscious (below the level of conscious awareness), officers often speak in terms of not knowing what has drawn their attention but knowing that it has been drawn nonetheless⁷³. Attending to the percept is necessary for the future step of Interpretation.

"If I find that something's, like, activated, I find, like, it'll slow down the room a little bit and I can like just hyper-evaluate things that are going on. And yeah, it just seems a little bit almost like it does slow down and I'm able to really assess what's going on and sort of spot things ... as soon as that kicks in physically, I'm properly getting ready for like a fight or flight kind of situation, just assessing it ... I find that my mind just goes into hyperdrive, just like properly hyper-fixates on the situation." (Phase 2 Interviews > 2P01F35 Transcribed, p. 2-3)

Attending, within the coding framework, can be aligned to process, dimension, and strategy families. In the process family, Attending represents the engagement stage, where heightened attention is directed towards specific stimuli⁷⁴. Officers may describe the occurrence of 'tunnel

⁷²"Instantly you think something's not quite right in that situation that you're walking into ... you're drawing on all this stuff that you're looking around [seeing], and it's just a process that you go through, 'this doesn't feel right'." (Phase 1 Interviews > P02F17 Transcribed, p. 2)

⁷³"It [TCN] tells me to pay attention to that thing [stimuli]." (Phase 3 Interviews > 3P01F08 Transcribed, p. 2)

⁷⁴"I lose focus on anything else going on." (Phase 2 Interviews > 2P07F20 Transcribed, p. 8)

vision' within this stage⁷⁵⁷⁶. In the dimension family, Attending reflects the shift from diffused to focused attention, prioritising specific stimuli over broader or more general environmental cues⁷⁷. High or intense cognitive resource allocation may also occur based on situational demands and/or the officer's resource availability. At this stage of the process, integration is said to occur between instinctual focus and deliberative reasoning⁷⁸. Within the strategy family, officer accounts illustrate the employment of strategies to 'isolate key stimuli' to optimise their attentional resources⁷⁹.

Socially, Attending can be classified within the BSP coding framework as 'Refining Situational Focus'. This process reflects how officers refine or narrow their attentional focus to priority

⁷⁵"I'll be in the room and all of a sudden, I'll get this, like adrenaline, right. Not because I think I'm the next Bergerac or the next Vera and I'm gonna have my own TV show 'cause I'm the best detective in the world, but I get this adrenaline going. I'm on to something ... and for me – because I'm aware of it, I'm conscious of it – what then happens is I get tunnel vision. I am now no longer interested in anyone else's opinion. I don't care what anyone else is gonna tell me, or if the next Poirot walks in and tells me that this is, you know, Miss Marple in the Library with the candles. I don't care because all of a sudden, I've got this adrenaline. I go tunnel vision and I'm like, 'right, this ain't right' and I've stopped because I want to understand it. And when I get to that point, then I'll start listening to the other bits of evidence or what other people have got to say, but up until that point, I do have this...not metamorphosis...but I have this adrenaline and then I have this – and like I say, I'm aware of it – it's like tunnel vision. It's like nothing else matters at the moment. This is it." (Phase 2 Interviews > 2P05F35 Transcribed, p. 6)

⁷⁶"I'll get tunnel vision, and you start becoming hyperaware..." (Phase 2 Interviews > 2P07F20 Transcribed, p. 8)

⁷⁷"It's the thing that draws your attention. The thing that you might otherwise miss... something's there that I need to be doing something about. Something that's worthy of a little bit of, sort of, professional curiosity." (Phase 1 Interviews > P09F17 Transcribed, p. 1)

⁷⁸"You have that interaction element that's happening in front of you where a person, car, situation doesn't feel right, [but] you've got the proactive bit where you are out looking, you're actively sort of tuned into whatever you are looking for, and I think a lot of that's about scanning... almost harnessing everything you've got and putting it all in one place." (Phase 2 Interviews > 2P05F20 Transcribed, p. 2)

⁷⁹"You just feel it ... so I focused on him. I got that tunnel vision, and then once I kind of got the tunnel vision and my brain kind of was telling me what I thought I was looking at, I then started to watch what he was looking at and that's when I started picking up the runners. And you start going, well, okay, I've now got the whole picture and that probably took a matter of seconds, you know, and, but again, would I've seen that if I hadn't been a copper and hadn't been exposed to some of the bits and bobs that I've been exposed to? Probably not." (Phase 2 Interviews > 2P07F20 Transcribed, p. 8-9)

stimuli within the environment or situation, filtering extraneous details⁸⁰. In the context of policing, this is essential for managing cognitive resources which may be prioritised toward criminal detection and prevention⁸¹. For example, officers may narrow their focus towards a particular individual raising suspicion within a crowd. Psychologically, Attending connects to the BSPS of 'Narrowing and Sustaining Cognitive Engagement', capturing the efforts required to refine and maintain attentional focus under pressure and within dynamic environments⁸². This is particularly prominent when experiencing cognitive strain, i.e. information overload within complex investigations or environments, or where they are experiencing fatigue or chronic stress. Officers continually manage their attentional biases, and response to environmental and situational cues with dedicated cognitive resources⁸³⁸⁴. Together, these BSP and BPSPs categorise Attending as a situational manager, demanding cognitive engagement with relevant perceptions and reflecting the psychological and physiological components involved in processing complex environmental stimuli and competing demands on attention⁸⁵. The nature of Attending highlights the Mediating role of TCN in deepening or

⁸⁰"You go to an address, and you just think, something's not right, but then you can substantiate that with things like looking at the physical surroundings... I think that feeds into what you already sense..., whether that subconsciously informs that decision or the other way around, I'm not too sure." (Phase 1 Interviews > P05F17 Transcribed, p. 1)

⁸¹"If you're a police officer and you go around blinkered, you're going to miss things and actually things could happen, consequences could happen because you're not actually opening your eyes about what's going on around you. You might miss someone who's vulnerable who needs someone to speak to, or you might miss a crime happening, so yeah, it's that first sort of key to things." (Phase 1 Interviews > P05F08 Transcribed, p. 1)

⁸²"There's always got to be a degree of actually using your own brain, using your own intuition to think 'I really should follow up that inquiry' or 'that just doesn't look right to me. I'm gonna investigate it further.'" (Phase 1 Interviews > P02F08 Transcribed, p. 5)

⁸³"... You don't want to miss anything, you become even more sort of hyper-vigilant." (Phase 1 Interviews > P02F11 Transcribed, p. 3)

⁸⁴"You might go out and be looking for a needle in a haystack... it's like going out and being hyper-vigilant, being on high alert and looking for things. If you haven't got that skill then you can be looking, as I say, it could be a needle in a haystack type job..." (Phase 1 Interviews > P02F11 Transcribed, p. 2)

⁸⁵"You do get hairs on the back of your neck. I don't care what anybody says. You get that little tingle and probably just that alertness. It's probably just that you start becoming knowingly, intensely watching something to the omission of all other things that are going on around you. You sort of block all that out and you almost hone in on what's there. I think if there is threat, then you get the adrenaline rush with you as well. You get the fight or flight type thing kick in." (Phase 2 Interviews > 2P05F20 Transcribed, p. 3)

focusing engagement within the environment or complex investigations. It demonstrates how TCN channels attentional resources towards specific stimuli⁸⁶.

5.3 Interpreting

Interpreting is closely linked with Assessing (forthcoming) and marks a separation from the raw detection of stimuli and environmental cues experienced through Perceiving and Attending, moving into the evaluative stages of Assessing. Within this stage, the interpretation of the identified stimuli begins, taking account of contextual understanding and combining the attended perception with supplementary information, including that drawn from unfolding stimuli and tacit knowledge⁸⁷. Within the GTM framework of coding families, it can be categorised as 'sense-making' within the process family. Involving the conversion of stimuli into meaningful patterns or explanations and creating actionable understanding, it integrates the identification of triggers or cues into the broader situational analysis. This involves processes best aligned with the dimension family, exploring the dichotomies of certainty and confidence where narratives such as, 'something is wrong', or 'I think something is wrong' are commonplace. Within the strategy family framework, officers employ interpretative strategies to guide their understanding and support their beliefs. They may do this by relating current stimuli to learned patterns or drawing upon tacit knowledge⁸⁸. Similarly, officers relate the

⁸⁶"If I actually then see something that I'm looking for, your heart would speed up because you know I'm in the right area now. I'm in the middle of the trouble, and now I've seen what I'm looking for, i.e. a problematic person, someone who's wanted or whatever ... you then wake up and your heart then speeds up... your thought process speeds up and you start waking up a little bit." (Phase 3 Interviews > 3P02F14 Transcribed, p. 1)

⁸⁷"It's something that's quite hard to explain. It's, like, when I was doing street duties and things like that with the new people [officers] and taking them out, it's trying to make people understand people's body language, it's trying to sort of get them to look at things differently. It's not just all black and white just driving around with your eyes closed, like, it's not all about the calls. It's looking at people's reactions to the police cars - whether it be marked or unmarked. It's looking at people's body language, how they hold themselves, and it's looking at how they interact with other people on the streets and things like that. It's constantly being aware of what's going on around you, which is what you do normally as police officers, but it's sort of a subconscious thing. You're not constantly sitting there going, oh yeah... whatever it is, you've already picked it out before it's even happened, and it's a very hard thing to teach." (Phase 2 Interviews > 2P02F14 Transcribed, p. 1-2)

⁸⁸"What we're looking for is something that doesn't fit the baseline..." (Phase 1 Interviews > P01F11 Transcribed, p. 4)

formation of their belief or hypothesis following detection of a stimulus to visceral or somatic sensations depending on the level of certainty ascribed to their interoceptive experiences⁸⁹.

Connecting to the BSP and BPSP frameworks, Interpreting might be classified as 'Constructing Meaning' and 'Synthesising Biophysiological, Cognitive, and Experiential Data', respectively. The BSP of 'Constructing Meaning' reflects how officers assign meaning to ambiguous, modal, or amodal perceptions in their environment. In the context of policing, this might include reflecting on one's experiences to relate the stimuli to patterns of prior experience – subconsciously or consciously – or deliberating with colleagues to apply collective meaning to refine understanding of the stimuli or broader situation⁹⁰. Understanding the cultural and operational frameworks of policing is necessary for interpretation, and during this stage, the attended stimuli may be placed according to the norms expected in similar

⁸⁹"I'm driving down the road and I suddenly come up behind a car and there's nothing at all to give it away, but I'll just get a feeling and then my hair is- I might get that sort of like almost like a bit of a rush of adrenaline and it's like 'something's not right', I can just feel that it's not...and you have to take a couple of deep breaths and you think 'right, let's get my head on straight. What is it?' And it might be that, you know, I put the blue lights on and that car takes off and then we have a chase, or it could be, you know, you said you go to, you might go to something mundane, something routine, and while you're there, something else is occurring. Perhaps in the same block or building, or block of flats or road, and you know, your heart rate goes a little...it's almost like anxiety, I would describe it. It's not like a horrible anxiety. It's like- probably the best way to describe it is sort of the symptoms of anxiety you get and then you have to think, 'why am I getting these symptoms? What is it telling me? There's something wrong.' (Phase 2 Interviews > 2P06F35 Transcribed, p. 3)

⁹⁰"We were talking to some family members, and it was quite clear that the picture they were painting of their son was nothing near right if you just looked at it and analysed it... but if someone said, 'well, why didn't you believe them?', I could actually go through it and say, 'well, I didn't believe them because they said this, and it just didn't make sense.'" (Phase 1 Interviews > P02F17 Transcribed, p. 3-4)

situations⁹¹⁹². This BSP highlights the personal and social interplay in constructing and applying meaning, indicating how an officer's interpretations contribute to broader hypothesis formation and subsequent decision-making. Interpreting aligns with the BPSP of 'Synthesising Biophysiological, Cognitive, and Experiential Data', which combines notions of integrating intuition with broader situational analysis, resolving ambiguity of internal and external types, and regulating emotional and physiological states⁹³. The integration of intuition with situational analysis requires combining tacit and experience-based knowledge with conscious reasoning,

⁹¹"When I was on Response policing, we just happened to come across somebody who was out in the middle of the night...and we just ended up having a conversation, and it was during this conversation that I just had a feeling that something was wrong. There was nothing immediately jumping out when we first stopped them, you know. It was just someone saying they were going from one place to another with a couple of bags, but as we got talking, there was just a feeling that, you know, this doesn't feel right. I felt like he was hiding something. And it developed into a stop-search which resulted in seizing quite a few big knives from his bag which were clearly not just the type of thing that you'd use in a kitchen, you know, they were quite dangerous weapons. That always stands out to me as an example of where the copper's nose comes into it..." (Phase 1 Interviews > P06F08 Transcribed, p. 1)

⁹²"For me, your TCN, it's based upon the individual, your previous history, your diversity, your background, but then your experiences in the job as well. You can have somebody that might come into the organisation that is from a particular faith or a particular culture, or a particular background, their TCN will be smelling something completely different to me... So certainly, it is better with some people, but that comes with the diversity that they bring. There's [some that are] 'better', but it's—, sometimes it's for scenarios that are different. Different people can walk into scenarios, like a child protection scenario, and just have that instinct that says something that's not quite right with this kid. Someone else could walk into a firearms or a different risk scenario or a murder and think there's something not quite right with that witness that another person might not see. So, I think it's certainly situational depending upon the different circumstances. But, when it comes to 'better' [TCN], some people will have a greater and broader skills of it. But I think, for me, to talk about the part as I mentioned earlier, it's all based on your schemas, your group experience, what you've built up. And the time you got bitten; the time you've been to a job, and it hasn't worked out right and you start recognising the same traits, the same characteristics. So yeah, I think some people are better, but some people are just naturally inquisitive as well, which I think is a little bit different." (Phase 1 Interviews > P12F08 Transcribed, p. 2)

⁹³"I'll give you an example...I went to go and pick a prisoner up in [redacted] last week, and as soon as you get out of [redacted], as soon as you get on the motorway, you don't switch off, but you tend to relax, and you know, I mean, you're just in that zone where you're-...yeah. As soon as you come back down the motorway and you start hitting familiar areas, familiar territory, problematic areas, you wake up. You're not conscious that you're actually doing it, but when you actually sit back and have these chats, you realise that that is actually happening." (Phase 3 Interviews > 3P02F14 Transcribed, p. 1)

notwithstanding the influence of emotional or physiological states. Whilst stimuli remain unclear and prompt narratives such as, 'I don't know what about the situation/person/environment was 'wrong', but I knew something was wrong', officers seek to resolve the ambiguity by drawing upon internal frameworks to make sense of the situation and apply the most likely explanation⁹⁴. This can be influenced by psychological states, such as stress or fear, and physiological contributions, such as the release of adrenaline, which may bias or enhance meaning-making. It is necessary to synthesise environmental cues with contextual knowledge and interoception (e.g. gut feeling) to interpret the attended perception⁹⁵.

5.4 Assessing

Assessing, as the final step in the Mediating process, involves the broader evaluation of stimuli to determine whether the initial perception aligns with the broader situational understanding. As an inherently cyclical process, it involves revision and re-evaluation based on ongoing inputs. Assessing underscores the iterative and dynamic nature of TCN as a mediator, emphasising its role in evaluating and maintaining situational awareness and contributing to decision-making.

⁹⁴"You might drive into a street and even something like the bins being in a different position...so there might be a bin up against a fence or garage, but everyone else's bins are out on the driveway for collection day and you think, 'why those bins over there', and then you go, 'have they just forgotten or has someone put it there so they can access their garden', and then you might get out of the car and have a look and go and the car's insecure, and then you look over the fence and it's like, the window's open if someone has tried to burgle, so yeah...you can sort of drive into a street or you can walk down the road, and sometimes you just think 'somebody doesn't feel right', and sometimes you can put your finger on it and you discover what it is. Sometimes you just get that feeling. You get that itch. You can't scratch it. You don't know where it's coming from, but it does happen." (Phase 2 Interviews > 2P06F35 Transcribed, p. 3)

⁹⁵"I've done a lot of work in a lot of my roles recently having been on knife crime, serious violence towards women, domestic abuse and sex offenders and all that kind of stuff, so those scenarios when they come about, when it's a crime I know, I'm pretty much on board with my colleagues now at this point - they've got 7 or 8 years of experience. When, however, we go to a new crime, for example rural crime or something like that, which is out of what we do normally, I would probably put me somewhere near the bottom on picking up on the cues of what goes on. It's almost like you're- it depends contextually on the crime. So if it's a crime I'm used to, like shoplifting, you'll know a shoplifter the second you look at one, 'you're shoplifting' and you just know it, it doesn't matter what they're doing ... I'm a 10 on shoplifting. If it's, again, if it was someone stealing cattle, I'd be like I have no idea. You're a bit weird being in the field, but I don't know ... it's not my area." (Phase 2 Interviews > 2P04F20 Transcribed, p. 2-3)

Within the GTM coding framework, it occupies the process, dimension, and strategy families. Assessing represents the 'evaluation' stage, bridging the gap between Perceiving, Attending, and Interpreting, with subsequent decisions to act or proceed. It integrates stimuli into a broader framework based on situational context⁹⁶. It can highlight areas of discrepancy and engages in a feedback loop, amending the interpretation of the percept. As a dimension process, Assessing involves determining the accuracy of an assessment (or hypothesis) and validating the alignment of perception with reality⁹⁷. It introduces the notion of confidence in drawing conclusions about how 'certain' an officer might feel about the percept and the belief they are beginning to form⁹⁸. Assessing enables an officer to adjust their interpretation based on new or changing information and represents the dimension between static and dynamic

⁹⁶"I do go into that kind of super focused mode ... I mean the brain is filling up synapses around that experience, and actually it's helping them for their self-preservation later on down the line. You just pick up routines and, you know, sort of just that feeling ... it is kind of a, there's something going on, I heard something, or I've seen something, or I've-, or it's just caught my eye and I'm now looking, and I want to know, and I think I want to know not because I'm a copper but because I'm worried someone's gonna get hurt ... so I go into hyper-sensitivity, hyper-focus ... which way do I need to run if we need to run? Which way are we gonna run? And what am I gonna tell them to do, you know? And you kind of go into that, they call it-, they used to call it fight or flight, didn't they, but now it's fight, flight or freeze." (Phase 2 Interviews > 2P07F20 Transcribed, p. 8)

⁹⁷"Did you actually do your job properly, or did I just go and stand in front of them, and just because they were being friendly - and I do often hear this, and I do say this - just because someone is being friendly, it doesn't mean that they're not up to something, or they haven't got something going on..." (Phase 1 Interviews > P04F14 Transcribed, p. 2)

⁹⁸"For me, it's down to being observant. You could quite-, as police officers, we have to take the blinkers off, we have to make sure we look around, even when we're dealing with an incident, we have to sort of see if something else happens behind us, we have to be aware of things for our own personal safety, as well." (Phase 1 Interviews > P05F08 Transcribed, p. 2)

assessment, including that related to risk⁹⁹¹⁰⁰¹⁰¹. Within the strategy family, Assessing draws upon cross-referenced cues and additional environmental or situational stimuli to corroborate and support an assessment or to weaken a hypothesis or belief. This contributes to the BSP framework elements of the Assessing process, where it could be termed as a 'Cyclical Situational Analysis'. In this regard, Assessing involves integrating the interpretation of attended stimuli within the wider situation and evaluating its significance to determine appropriate action¹⁰². As an iterative and ongoing process, officers cross-reference information and make revised assessments of the situation, adjusting their understanding based on new or conflicting stimuli and information¹⁰³. Comparing initial perceptions with new data – for example, the subsequent actions of an identified person or the integration of stimuli from the wider environment – officers revise their assessments as they attend to additional cues or stimuli ¹⁰⁴. Psychologically, as a BPSP, Assessing could be categorised as 'Resolving

⁹⁹"It comes down to [does] 'this person pose a risk to us' or [is] 'this person maybe less of a risk to us'." (Phase 1 Interviews > P02F08 Transcribed, p. 3)

¹⁰⁰"The classic example as a police officer is when a police officer goes out for a meal, they kind of look at who is around them because they don't want-, they're kind of judging everyone as they come across them, they're looking out for danger, they're looking out for someone who is going to cause trouble and looking for the exit as well." (Phase 1 Interviews > P03F08 Transcribed, p. 2)

¹⁰¹"You know when someone's being a right'un, or someone's being a wrong'un, or someone's doing what you're asking them to, but they're looking for a way out. It's either a way to attack you, or run away, or do whatever they're gonna do. So, lots of times when you're at that final point where you're going to arrest somebody, that's their last chance to get away from things. So, that is a really-, not stressful, but needs to be a well-managed area for us." (Phase 1 Interviews > P06F11 Transcribed, p. 1)

¹⁰²"In terms of keeping yourself safe, if you can't read the scene fast enough then you are going to get hurt." (Phase 1 Interviews > P04F17 Transcribed, p. 1)

¹⁰³"It is valuable. Extremely valuable. It can sometimes lead you down a garden path and we come to the end of it and there's nothing there. So, it can, at times– you're trying to get from A-Z but BCD are never gonna be there and sometimes you will put more effort into things than what's totally required. But other times, it saves lives." (Phase 1 Interviews > P12F08 Transcribed, p. 2)

¹⁰⁴"When you're out on patrol and you go to an incident, if it's a fast-moving incident where you're driving on 999 call, you're on blue lights, when you jump out the van, people can be in the middle of an incident where there might be some violence, might be some fighting, and you've quickly got to work out who is who, you've gotta kinda look at who you need to stop, you need to look at who is on the outside, you need to look at who's coming forward to tell you information, and it is very much a snap decision where you've got to think, 'you just don't look right, you just look-, you look very much part of this and I need to get to the bottom of this', but you've got stop things, so it's like very much, you haven't always got all the information, but you have got that instinct of like, 'yeah, I need you stay here', kind of thing, and then you get the information." (Phase 1 Interviews > P04F17 Transcribed, p. 1)

Cognitive Dissonance and Establishing Belief'. At this stage, officers focus on evaluating the attended stimuli and determining whether their perception aligns based on informing and revised information. This is a process concerned with balancing their instinctual interpretations with analytical reasoning, as other cognitive processes are triggered and contribute to the assessment¹⁰⁵. Simultaneously, officers must process their internal certainties or uncertainties as they continue to perceive, attend, and interpret, revising their assessment to form actionable conclusions¹⁰⁶. Within TCN, Assessing completes the cycle by synthesising Perceiving, Attending, and Interpreting into belief and determining resultant action(s). It reinforces TCN as a mediator by bridging the gap between stimuli and an officer's belief or

¹⁰⁵"Sometimes you can just be in an area, and you can almost just-, and this is the bit that's really hard to quantify-, you can feel that something's not right. You walk into an area, be in as a plain clothes officer like I am, or you know, full on blacks with everything on there that really easily identifies you as a police officer, and if you were used to that area, you can feel it. You can feel something's not right. There's, you know, there's less people around, it's very-, there's no noise when there's really quite a bit of noise, the area will feel different to how it normally does straight away. You start thinking, 'right, why is that? Is there somebody at risk? Am I at risk? Is this going to be, you know, worst case scenario? Is there a plan of attack on the police officer and it's all gone quiet?', and you know there're areas of [redacted] that I have worked in that it is fairly normal to get quite a bit of abuse in as an officer. When that stops, I always say, 'okay, right, it's very quiet ... normally I'm getting some grief and there isn't any, why is that?' And I think if you're in the community, which, you know, now my current role [redacted] is not so much, but in previous roles we were based in communities, you're out, you're in those communities every single day, all of your shift is there, in your car, be it on foot, you are there all the time and unfortunately in policing, it does tend to be the same areas and you notice when things don't fit with that area the same way as if you were at your house. You know you have that baseline for where you live and what that feels like when it's gone very quiet. And if there's then other factors into that, so you might have somebody on the street corner looking as a lookout – as a stereotypical one, that does happen. They have pulled cars into streets. Look out and suddenly got straight on the phone and literally sent the entirety of the car park to go because I know I can't pull six cars at once, so they just starburst because I can't go in six directions at once, so it's that kind of thing where sometimes it is as simple as you just know something's happening."

(Phase 2 Interviews > 2P09F20 Transcribed, p. 2)

¹⁰⁶"...especially with sort of body language and like a psychological sort of thing, you can tell when someone's not doesn't quite fitting in for whatever reason ... and I think from that learning from other experiences helps you with that TCN because you're like, 'well, this happened last time or this is what happened or likely to happen', so you're constantly running risk assessments in your head and going through all of them sort of past schemas and things like that." (Phase 2 Interviews > 2P03F35 Transcribed, p. 2)

hypothesis about a situation, while highlighting the influence of ongoing inputs in the process¹⁰⁷.

5.5. Example Data Incident

The following example illustrates the Mediating process, from perception through assessment, showing how officers perceive, attend to, interpret, and ultimately assess their environment. It highlights how officers combine visceral sensations with cognitive models to form a belief about a situation.

"If you walk into a domestic abuse situation, when you walk into those, when you step behind the doors, you get this weird feeling - you almost automatically know the feeling of the house. It's a warm house or it's a cold house, or this-is-a-partner-that's-being-beaten-house and it's literally the minute you walk in the door ... and it's just- you feel it, and you get this weird [feeling]. When it's a house where you know there are kids and something's going really wrong with the kids, you walk in and you get this nasty, almost quite...it's not like an aggressive-, but-...have you ever been really scared and you kind of-, everything else shuts off, and you get that, I'm in this moment kind of feeling, you get that, and you're like, 'now I'm really getting weird senses now', and when you deal with-...I've dealt with paedophiles in the past – we've done a lot of that recently – and you can walk in and they'll be denying everything when you're doing the initial arrest, but you get this weird feeling going...you're telling me these things, but I'm not believing your eyes, and you get it [this feeling]. And with that, you get a creepy feeling where you're almost- you feel a bit repulsed by them, it's probably disgust that you're bordering on in some respect, and you start to realise that they're looking at things. Like, they'll start looking at the cabinet, so we'll start looking at things you go, 'that's where you're keeping the stuff then, isn't it?' So that's where we're gonna start looking. And so yeah, it's a really hard one to put a finger on, but it's a primal instinct, I suppose, where you walk in, and you go, 'hmmm'. Definitely with domestics, though, you get it [that feeling]. You literally walk through the door, and you'll go, 'I feel comfortable here'. It's almost like you walk into your own house. 'I feel comfortable and relaxed, so we're okay'. Whereas you get others where you walk in and go, 'I don't feel comfortable here. Something's not resonating with me and that's the problem'. And you get that weird...not hot per say...in my scenario, it's more quite cold and your emotions switch off in some respects and you become very much, 'right, I'm running my risk assessment now', and all that kind of feeling goes away and it's more 'what's the logical thing here? What's the next step? What's the danger? What's the thing I'm looking for? What's causing this', if that makes sense." (Phase 2 Interviews > 2P04F20 Transcribed, p. 2)

¹⁰⁷"When you walk into a house, there are so many different things that you need to consider, that you really need to get quick at analysing." (Phase 1 Interviews > P04F17 Transcribed, p. 2)

5.6 Discussion

Drawing on the findings presented and the resulting substantive theory, this section applies retroductive reasoning or ‘abduction’ to propose potential causal or contributory mechanisms that underpin TCN. Retroductive reasoning, as discussed in Ch. 3, is an inference-based analytical approach that converts empirical observations into the ‘most likely’ explanatory hypothesis. Since TCN is situated within a practical policing context, providing an explanatory framework is valuable for understanding the implications of its existence. The ‘Mediating’ discussion uniquely incorporates insights from neuroscientific and biopsychological literature, as unexpected physiologically embedded components were identified in the perceptual accounts. While causation or concomitance has not been empirically tested, the proposed framework offers theoretical insights for further research to validate these hypotheses.

5.6.1 Sensory Perception

Perception, which has emerged as a component of the ‘Mediating’ process, occurs in response to sensory data (sensation or sensing) and presents in multiple forms; broadly divisible into those that relate to our sensory modalities, and further into conscious (explicit) and subconscious (implicit) perception. Aligned with our sensory modalities are: visual perceptions – the process of interpreting visual stimuli (Goldstein, 2013); auditory perceptions – data processed through sound (Moore, 2012); tactile perceptions – the interpretation of touch, including pressure and temperature (Kandel et al., 2013); olfactory perceptions – the detection of smells from airborne molecules (see: Li, 2014; Rosen & Chakraborty, 2015); gustatory perception – the interpretation of flavour and taste profiles (Vincis & Fontanini, 2019); proprioception – the ability to sense position and reflexes (Sherrington, 1906); and vestibular perception – involving the detection of balance and spatial orientation via the ear (separate from auditory perception) (Angelaki & Cullen, 2008). These sensory modalities will often produce multi-factor perceptions, including social perception, which combines sensory perceptions to interpret the behaviour, emotions, and intentions of others (Fiske & Taylor, 2017), and multimodal perception, which concerns the integration of sensory information from various modalities to generate unified perceptions of objects or events (Shimojo & Shams, 2001). Often included within the category of subconscious perception are implicit perceptions – concerning automatic associations, biases, and priming effects, influencing cognition and behaviour without conscious awareness (Bargh, 1997; Greenwald & Banaji, 1995) – and subliminal processes – involving stimuli processed below conscious awareness with behavioural effects (Kouider & Dehaene, 2007; Merikle & Daneman, 1998). Understanding both conscious and subconscious forms of perception is crucial for understanding the interplay between the detection of and response to environmental stimuli – which TCN fundamentally concerns.

How, or what, we come to perceive can be split into mechanisms of perception (the biological components of visual processing, for example) and the subconscious stimuli that focus our

attention. Certain bottom-up processes include salience-driven attention, where stimuli are more readily identifiable owing to their physical properties (e.g. contrast, brightness, movement, etc.). Occurring without conscious effort, the mechanisms involved in these processes rely on the superior colliculus¹⁰⁸ and the primary visual cortex, which modulate perceptual changes in the environment, such as sudden movement (see: Yantis & Jonides, 1990). In policing, an officer may come to notice a loud noise in a crowd or a sudden movement, automatically directing their attention towards a stimulus unconsciously. Similarly, psychologists have well-documented the “stare-in-the-crowd” effect, in which direct eye contact, particularly when accompanied by perceived intentionality, is more rapidly detected than an averted gaze (Colombatto et al., 2020; Ramamoorthy et al., 2019).

Perceptual focus can also be influenced by top-down, goal-directed processes. Forms of top-down attention involve directing focus towards stimuli that align with goals or expectations. Influenced by an individual’s priorities, the dorsolateral prefrontal cortex¹⁰⁹ couples with the posterior parietal cortex¹¹⁰ to maintain focus on task-relevant stimuli. To minimise distraction caused by additional stimuli, the anterior cingulate cortex¹¹¹ mediates attention allocation against competing demands (Corbetta & Shulman, 2002). In the professional policing context, officers may subconsciously focus on individuals behaving in ways that align with their task-oriented goals (e.g. someone exhibiting nervous body language as a relevant indicator). The notion that individuals display task-oriented perception may contribute to the micro-variances cited by officers in different specialisms. For example, officers in proactive roles who are tasked with the prevention or interception of crime may focus on stimuli that indicate imminent criminal activity, while those in investigative roles may focus on stimuli that indicate retrospective patterns. These task variances may influence an officer’s focus and present subtle differences in the detection of particular stimuli as it is relevant to their role.

Further influencing perceptual detection are stimuli which hold emotional or motivational weight. Motivation – which will be discussed in forthcoming sections – was cited as an important trait in officers identified as having a ‘good’ TCN. Neurologically, stimuli with motivational significance are more likely to be noticed and subsequently attended to, reflecting the brain’s prioritisation of relevant information (Vuilleumier, 2005). Facilitating the process, the amygdala evaluates the emotional salience of stimuli and enhances attention toward cues

¹⁰⁸A midbrain structure responsible for detecting, localising, and orientating towards particular environmental stimuli.

¹⁰⁹Brain region concerned with cognitive mechanisms of executive processing, social decision-making, etc.

¹¹⁰A brain region responsible for focusing attention and spatial awareness.

¹¹¹Responsible for regulating situational cues including the minimisation of error and adaptive responses.

that are assigned heightened weight; for example, those classified as threat or reward. In the policing context, where threat is ubiquitous and reward could be seen as synonymous with successful arrest or the prevention of crime, this is likely to result in the subconscious application of heightened weighting to stimuli that are specifically relevant to the practice of policing, i.e. an individual displaying suspicious behaviour. Concurrently, the hypothalamus and autonomic nervous system heighten arousal by modulating adrenaline, sharpening focus, and directing it towards the identified weighted stimuli (Vuilleumier, 2005). While this may have far-reaching explanatory power across the broader policing context, it demonstrates the potential for a plethora of applications for officers who proactively seek to apply their TCN. In doing so, an officer benefits from experience-driven selection, which also impacts what stimuli are prioritised via perceptual faculties. Repeated exposure to specific environments trains the brain to notice subtle cues that align with learned expectations (Klein, 1998). The basal ganglia¹¹² and medial temporal lobe¹¹³ encode habitual responses and patterns of recognition, simultaneously enhancing experience-based neural pathways to improve sensitivity to relevant stimuli. Manifesting as quick, subconscious processes, this might explain how experienced officers, when engaged in task-based activity relevant to the policing context (i.e. the detection of crime), reference their noticing micro-indicators of deception where those unfamiliar with the policing environment might overlook them.

Fundamentally, the mechanisms of perception require cross-modality integration, drawing upon an officer's multi-sensory capability to prioritise stimuli. The superior temporal sulcus¹¹⁴ engages in multi-sensory integration through the parietal cortex¹¹⁵ to coordinate these complex processes of multi-input sensory information to establish situational understanding. Oftentimes, stimuli that are relevant to multiple sensory faculties will also be prioritised (Stein & Meredith, 1993). This could allow an officer to intake a multitude of integrated sensory information that demands heightened attention specifically within the policing context without the officer being consciously aware and may explain how officers become skilled at detecting ambiguous – yet relevant – stimuli within the environment that might otherwise go undetected by laypersons.

5.6.2 Heightened Attentional Focus

Heightened attentional focus (the underlying principle of 'Attending') is generally understood in terms of perceptual narrowing or 'selective attention', in which focus is drawn towards particular stimuli, objects, or tasks. In doing so, the brain focuses its cognitive resources, including the filtering of sensory information, to prioritise stimuli of interest (see: Posner &

¹¹²Brain structure concerned with learning and processing.

¹¹³A region that contributes to cognitive function (memory processing).

¹¹⁴Involved in social perception, i.e. anticipating the actions and thoughts of others.

¹¹⁵Fundamental in sensory processing.

Rothbart, 2007). Commonly, this occurs due to emotional arousal which prompts an attentional bias (see: Mogg et al., 1994), although it can occur volitionally as a result of goal-orientated processes without emotional arousal (see: Posner & Petersen, 1990).

An important development in contemporary literature are challenges leveraged against traditional cognitive models, which often emphasise conscious awareness as being central to perception. Instead, scientific output is more frequently positing the existence of interactive and dynamic systems where conscious and unconscious processes sit within a continuum and collaborate to shape our perceptions and determinable actions. One such theory is that of 'Global Workspace Theory' (GWT), which supports arguments that individuals selectively attend to perceptions. Proposed by Baars (1988), GWT theorises that individuals prioritise specific stimuli over others to enter detailed processing in the 'global workspace' (a functional cognitive architecture that allows the integration and dissemination of information across multiple brain regions), and only selected stimuli are processed and analysed. In GWT, attending functions only to 'broadcast' that which is deemed relevant to the global workspace, prompting subsequent cognitive processes. This process represents the critical mechanisms underpinning attending by drawing upon the neurological processes of sensory filtering, memory integration, and actionable focus (Baars, 1988). Supporting theories include those posited by Broadbent (1958), which demonstrate that attentional mechanisms act as a 'bottleneck', applying filtration processes to incoming sensory information. Ascribed an integration feature by Treisman & Gelade (1980), attending also acts as the mechanism of establishing sensory coherency. As a dynamic process, stimuli which are considered 'relevant' are determined through goal-orientated top-down and bottom-up neural mechanisms. For example, the prefrontal cortex (PFC) is engaged to maintain top-down control of task-relevant goals, where the dorsolateral PFC focuses cognitive resources on stimuli that align with these goals. The posterior parietal cortex (PPC)¹¹⁶ collaborates with these systems to prioritise and integrate information, ensuring that attention aligns with the intended focus (Corbetta & Shulman, 2002). Complementary bottom-up processes allow for attention to be captured involuntarily by salient or novel stimuli (which aligns with notions in predictive processing), such as sudden or unexpected cues in the environment. As a reflexive and environment-driven mechanism, the ventral attention network¹¹⁷ (comprising the temporoparietal junction and the ventrolateral prefrontal cortex) becomes activated in response to these novel stimuli. In policing vernacular, this may relate to incidents where officers intently focus on that which 'doesn't fit' within the environment or situation. Identifying such stimuli disrupts ongoing attention and directs additional cognitive resources towards these unexpected stimuli within the environment (Corbetta et al., 2008). These task-driven processes, complemented by novel stimuli, are supported by endocrinological processes, particularly that of dopamine and

¹¹⁶Concerned with managing attention, spatial reasoning, forward planning, etc.

¹¹⁷The brain's radar system that modulates rapid shifts in attention.

noradrenaline, to sustain focus on the attended stimuli (Aston-Jone & Cohen, 2005; Robbins & Arnsted, 2009; Sara, 2009). The release of noradrenaline embedded within these processes may provide an explanation for the frequency and intensity with which officers cited the perceptual presence of noradrenaline coinciding with TCN. It also correlates to notions in the data where officers reference the perceived presence of adrenaline, which may be explained by the ‘expectancy hypothesis’: where expecting imminent engagement with a salient stimulus (e.g. anticipation of making contact with a suspected criminal) leads to “heightened energisation ... searching for and expecting reward” (Panksepp, 1986, p. 91).

An additional contributing factor to the identification of weighted stimuli is emotional valence. Emotional valence refers to the “value associated with a stimulus as expressed on a continuum from pleasant to unpleasant... (and) is one of two axes on which an emotion can be located, the other axis being arousal” (American Psychological Association, n.d.). When stimuli carry additional emotional weight – which can be influenced by task motivation – arousal is increased, leading to a heightened physiological response when perceiving relevant stimuli (Khosrowabadi et al., 2010; Olofsson et al., 2008). Emotionally significant stimuli are also known to capture attention faster and sustain attention for longer periods (see: Fox et al., 2002; Öhman et al., 2001). However, as there remains an absence of a comprehensive definition for ‘emotions’¹¹⁸ (Khosrowabadi, 2018), the accepted practice is to define and categorise emotions based on their subjective valence and resultant arousal (Ekman, 1999; Russell, 1980). While studies concerning the emotional valence assigned to stimuli in policing (i.e. the presence of ‘fear’ in conflict situations) have not been conducted, the emotional nature of policing has been well-documented (see: Black & Lumsden, 2020; Chapman, 2009; Sweeney, 2022; van Gelderen, 2013). In practical terms, competing demands in policing – between reward-centred activities (e.g. arresting a known offender) and threat or fear-centred activities (e.g. exposure to violent persons) – increase the emotional valence that officers are likely to experience in the course of ‘doing their job’. Heightened emotional weight further compounds the ability to perceive novel stimuli in the environment (see: Mitchell & Greening, 2012) and is demonstrable in the ‘oddball effect’. This effect, also referred to phenomenologically as ‘behavioural distractions’ or ‘oddball tasks’ (see: Parmentier, 2014), refers to the detection of novel stimuli that deviate from perceptual expectations and disrupt less relevant primary tasks. The process causes involuntary attentional focus towards the ‘oddball’ within the environment – i.e. that which “doesn’t look right” (Parmentier et al., 2008; Schröger & Wolff, 1998). The strength of the oddball effect is moderated by the ascribed emotional valence of a specific stimulus (Lu et al., 2017). In policing terms, this effect suggests that the more an officer is emotionally invested in the detection of relevant oddball stimuli (e.g. identifying an offender in a crowd), the more enhanced their detection abilities

¹¹⁸Determining what can be ruled an ‘emotion’ and what cannot, based on their properties and presentation. For example, whether ‘anxiety’ is an emotion in the same way that ‘melancholy’ is an emotion, and whether they can be classified by the same metrics.

become. This occurrence has known crossover effects in other performance-driven tasks, including those exhibited within athletic performance (Janelle, 2002; Robazza et al., 2008; Triplett, 1898 as cited in Lu et al., 2017). Within the policing context, which can additionally be characterised by a prevalence of fast-paced scenarios presenting complex and competing sensory input, TCN commonly relies upon 'split-second' perception (referred to in the data incidents as "seeing something that just catches your eye"). As a result, it may be the case that exhibiting TCN relies not only on the ability to detect relevant stimuli, but also on doing so accurately and effectively within fast-paced environments.

5.6.3 Mental Chronometry

Whilst emotional ascription to relevant stimuli is a potential effectual component in presentations of TCN, another potential underlying mechanism that could explain presentations of, and micro-variances between, officers' perceptual abilities is the concept of mental chronometry. Mental chronometry can be classified as the study of the neural-cognitive determinate comprising the speed or time ('*chronos*') that elapses between an individual's neural detection of a stimulus and their cognitive response (see: Akhiani et al., 2015; Hough, 2017; Schall, 2003). In other words, the time taken between the unconscious perception of a stimulus and the conscious recognition that something has been detected that requires increased attentional focus (e.g. "That doesn't look right"). The process is underpinned by a reliance on two neural components: i) neurons in the sensorimotor structures responsible for gathering sensory information relating to a stimulus; ii) additional neurons, both within and outside of these structures, responsible for preparing for and executing subsequent responses (Schall, 2003). Relevant to this thesis are studies that have examined the impact of mental chronometry in policing, focusing on the effects of individual variances and the nature of policing itself. Of particular interest are those which explore the underlying biophysiological factors that influence neural-cognitive processes, such as perceptual distortion and sensory reliability, and how these vary in situations commonly faced by police officers. For example, Hough (2017) stressed the impact of perceptual distortions and how they might contribute to outcomes in law enforcement shootings whereby an officer is subjected to multiple demands on their sensory perceptions. The findings demonstrated that officers often experience perceptual distortion in high-stress situations where they exhibit low stress management, manifesting as tunnel vision, time dilation, and auditory hallucination. These distortions are suggested to occur due to rapid neurochemical changes, e.g. the release of adrenaline, which leads to narrowed stimuli focus – echoing works earlier cited. Hough examined how this impacted decision-making and recorded mental 'trade-offs' between response speed and accuracy. Commonly cited by officers within the data is the frequency of exposure to high-intensity and often high-risk situations. The biophysiological state of an officer – particularly those operating within high-intensity environments where there is an increased acute demand – is known to have significant measurable impacts beyond that which is often considered in policing practice. Taverniers et al. (2010) ran a visuo-spatial declarative working memory field

experiment with candidates in training for the Special Forces. Their focus was on measuring the effects of stress and the elicitation of cortisol on working memory and visuo-spatial perception. The results revealed that in high-stress scenarios, such as those that officers are regularly exposed to, working memory and visuo-spatial perception are hindered. In a review conducted by Novy (2012), it was found that high-stress policing situations, particularly those where there exists the potential for lethal force, officers near-universally experience perceptual distortion (see also: Yerkes-Dodson Principle, Yerkes & Dodson, 1908). Levels of physiological and psychological stress were emphasised as having significant effects on sensory and cognitive processing, lessening an officer's ability to perceive and interpret their environment accurately. These studies highlight the importance of recognising individual variances in baseline perceptual abilities – the impact of which is not readily considered in policing – as well as the negative impact that poorly managed stress (negative arousal) can have on officers. Officers appear aware of these effects, as supported by the data incidents herein where 'tunnel vision' was included in the narratives of officers, particularly those in high-stress, high-demand roles (e.g. violent crime response). Our knowledge of mental chronometry also demonstrates how the variability in perceptual abilities and accuracies exhibited by individuals rests, at some not insignificant magnitude, upon deviations in their sensory perception at the physiological level, prior to cognitive engagement. More broadly, the literature suggests that officers may have the ability to narrow their attentional focus to threat-related cues. This is of interest when discussing presentations of TCN as many of the participants reported heightened sensory awareness towards a stimulus which prompted cognitive engagement – as opposed to reporting a concurrent or reversed process.

It is important not to confuse these specific neural processes with reaction time. Reaction time, by contrast, concerns the total duration between the neural response and a physical motor response, often impacted by an individual's 'readiness potential' (RP). The concept of RP: a measurable brain signal that precedes motor action, was outlined in an experimental paper by Libet (1985) where he highlighted the impact of the cerebral initiative in processes of voluntary action. His research provided groundbreaking insights into the relationship between brain activity and conscious experience by demonstrating that unconscious processes initiate actions before conscious awareness – which could offer compelling mechanistic explanations behind officers' inability to articulate a conscious detection of stimuli that trigger TCN. These findings challenge the often-over-simplified models concerning decision-making, e.g. dual models, 'System 1 and System 2' (see: Kahneman, 2011; Kahneman & Frederick, 2002), which have been criticised for neglecting the subconscious neural and physiological processes that precede and supersede wider cognitive engagement (see: Evans, 2008; Gigerenzer, 1996, 2007, 2019; Stanovich et al., 2000). The impact of (the study of) mental chronometry, and the heterogeneity exhibited between individuals, holds such significance that it has become a growing central focus in the analysis of decision-making (see: Glimcher, 2001; Gold & Shadlen, 2001; Platt, 2002; Romo & Salinas, 2001; Schall, 2001).

5.6.4 The Science Behind 'The Sixth Sense'

Central to narratives concerning decision-making, and relevant to discussions of TCN as a mediator between officers' internal and external states, are notions of conscious versus subconscious awareness and processing. Whilst much of the chapter thus far has discussed the putative neural mechanisms underlying 'Perceiving' and 'Attending', other processes emergent from the data within the 'Mediating' function are those of 'Interpreting' and 'Assessing'. How information is categorised and beliefs formed (e.g. conscious determinations of "that doesn't look right") relies upon how perceptions are interpreted and assessed. Phrases often associated with the phenomenon of TCN (born from the data set) include 'spidey sense', 'gut instinct', 'gut feeling', and more rarely but remaining significant, 'intuition' and the 'sixth sense'. The sixth sense – which is more often adopted into the parlance 'policing sixth sense' in the United States (Worrall, 2013) – has become synonymous with a sense of 'knowing without knowing' and as an ambiguous means of perception. Outside of popular culture, however, the 'sixth sense' has received more focused attention where strict delineation has been applied.

In the advent of modern neuroscience, the 'sixth sense' has become a poignant focus of scientific study, culminating in the contemporary work, *'Biophysics and Neurophysiology of the Sixth Sense'* (Rezaei & Saghazadeh, 2019). Whilst the authors did not necessarily intend to establish the boundaries of the sixth sense, they provide a collection of empirical studies concerning extrasensory perceptions, evolutionary perspectives, and neurocircuitry, to offer an exhaustive and scientifically grounded explanation for the physiological existence of the 'sixth sense'. Neuroscientific examination of the sixth sense can be traced back at least to the works of Zagon (2001), who proposed that the sixth sense was mediated by the vagus nerve. The paper posited that the vagus nerve possesses mediating properties in the integration of viscerosensations (bodily sensations) with processes of the central nervous system. Zagon's work discusses how the vagus nerve – a known transponder of internal sensory faculty input – can influence perception, behaviour, and stress response by modulating activity in key brain areas (e.g. solitary tract, locus coeruleus) that are linked to cognitive processing. In the policing context, the nature of unconscious sensory integration might underlie mechanisms of TCN whereby officers cite the ability to detect stimuli in the environment prior to articulable awareness. The vagus nerve's role in stress regulation and attentional modulation is known, based on Zagon's theory, to contribute to heightened sensitivity during critical moments. The presence of the stress response also has known influences on perceptual abilities – which has been studied in police officers with significant findings (see: Hough, 2017). Importantly, however, the vagus nerve acts as the primary communication mechanism between the gut and the brain and is integral to the gut-brain axis¹¹⁹ (Berthoud & Neuhuber, 2000). This communication plays a crucial role in what is considered to be the 'gut instinct', which was

¹¹⁹Which regulates mood, cognition, and mental health states.

frequently cited by officers herein as the defining component of TCN. Similarly, the vagus nerve's role in stress modulation and processes of arousal (i.e. the release of adrenaline) contribute to perceptual abilities in detecting environmental stimuli (Thayer & Lane, 2000). For example, when the body experiences stress, modulated by the vagus nerve from imperceptible sensory input, it raises levels of alertness and influences decision-making (Porges, 2007). Empirical evidence to support the functional effects of the vagus nerve have been recorded in studies concerning impaired gut-brain signalling. In certain disorders, including anxiety, depression, and irritable bowel syndrome – where gut sensations and emotional processing are misaligned – underlying impairment of the vagus nerve is found (Mayer, 2011). The vagus nerve's role in regulation of viscerosensations with resultant cognitive processes suggests that it may play a key part in our empirical understanding of the 'gut instinct'. Practically, and of relevance to this theory, not all vagal nerves are created equal.

5.6.5 Vagal Tone

Vagal tone refers to the level of activity of the vagus nerve in coordination with the parasympathetic nervous system: responsible for the 'rest and digest' recovery state, autonomic function, and maintaining homeostasis following exposure to stress or threat response (Ruffoli et al., 2011; Yuan & Silberstein, 2016). Importantly, vagal tone can be measured and, by doing so, provides significant insights. Most commonly, vagal tone is established using heart rate variability (HRV) analysis, which measures the variation in time between consecutive heartbeats. 'High' vagal tone indicates a robust and well-functioning parasympathetic system and is associated with better stress resilience and enhanced emotional regulation; whereas low vagal tone is linked to poor vagal and parasympathetic function and can act as a predictor in the development of neuropsychological conditions such as anxiety and depression (McLaughlin et al., 2015). Critically, vagal tone is a valuable indicator in assessing the body's ability to rapidly shift between states of rest and stress (arousal), playing a key role in the preparation of individuals to perceive and respond to stimuli, including threat and reward. Research suggests that individuals who demonstrate elevated vagal tone exhibit superior perceptual abilities across both top-down and bottom-up processes (Park & Thayer, 2014). The same individuals also demonstrate enhanced regulation of attentional focus, enabling more efficient detection of environmental cues and the inhibition of affective emotional states (Park & Thayer, 2014; Thayer & Lane, 2000). In recent studies where the vagal nerve was manipulated to improve tone, higher-order cognitive functions, including that of goal-directed behaviour and motivation, were enhanced (Müller et al., 2022; Teckentrup & Kroemer, 2024). The impact that variation in vagal tone may have on the emergence and presentation of TCN in individuals could be vast. For example, it has been shown that individuals with higher vagal tone (indicated by HRV) are able to more effectively shift and maintain attentional focus toward novel and situationally relevant stimuli and away from emotional distractions and demands (e.g. a fearful face) (Park et al., 2012). Furthermore,

studies have also shown that those with higher frontal asymmetry (measured by EEG¹²⁰) and lower vagal tone exhibit significant social threat bias, accounting for 37% of recorded variation across individuals in attentional vigilance to 'angry' faces (Miskovic & Schmidt, 2010). In practice, and as highlighted by Zagon (2011), this demonstrates the significance of the vagus nerve's relationship to the detection of and response to environmental stimuli, particularly that which concerns threat as may be more prevalent in the policing environment. Within policing, and as demonstrated within the data, officers are required to process competing demands for attention often within environments characterised by high emotional intensity (e.g. the anger or upset someone, or those in the immediate environment, may demonstrate on being arrested). An officer's ability to maintain focus on relevant stimuli and reduce distraction caused by emotional stimuli is paramount to their success. It may be the case that officers who possess higher vagal tone may also be the officers known for having a 'good' TCN owing to their ability to remain vigilant to policing-relevant stimuli, negating emotional distractions, shifting their attentional focus more effectively, and demonstrating resilience to stress-induced pressure. However, without further testing, this remains a speculative – albeit neuroscientifically supportable – possibility.

5.6.6 Interoception

Closely linked to the concept of the 'gut instinct' and the 'sixth sense' is that of interoception. Often defined as "the perception of the state of the body" arising from senses of the viscera (Ceunen et al., 2016, p. 1), interoception refers to an individual's ability to detect (or 'sense') internal sensory changes, e.g. increases/decreases in heart rate, or the presence of adrenaline.

Original thinkers on interoception date back to James (1890) and Lange (1885/1912), who postulated that emotions¹²¹ arise from perceiving somatic changes within the body. More commonly, interoception refers specifically to the brain's ability to perceive and interpret bodily signals arising from inputs modulated by, e.g. the vagus nerve (Craig, 2009). This feedback, which provides the brain with continuous updates about internal bodily states (e.g. triggering of the threat-response and the release of adrenaline – cited frequently by officers), shapes the unconscious processing of perceptions, emotions, and decisions. The concept has become prominent in scientific application, providing evidence in the form of the Somatic Marker Hypothesis/Theory posited by Damasio (1996, 2006), the Sentient Self Model (Craig, 2009), and theories of interoceptive awareness and sensitivity (Critchley et al., 2004. See also: Seth & Critchley, 2013). Research has also demonstrated that interoception has far-reaching impacts and consequences for cognitive function. Garfinkel & Critchley (2016) explored how states of bodily arousal (i.e. cardiovascular arousal) influence stimuli processing, and found

¹²⁰Electroencephalogram.

¹²¹Herein concerning physical and mental changes resulting in the sensation of "feeling".

that heightened arousal intensifies feelings of fear and anxiety, and enhances memory for emotionally salient stimuli (e.g. fear). Similarly, Mather et al. (2016) examined how norepinephrine-driven arousal amplifies neuronal activity, enhancing selectivity in perception during attention-demanding situations, particularly those ascribed emotional significance. To adopt a policing lexicon, they refer to 'hotspots' of heightened neural activity that prioritise sensory information over peripheral details and sharpen perceptual focus in 'critical' moments. This research offers clear applications for TCN, where the nature of policing requires officers to function in high-arousal environments characterised by criticality. The findings suggest that heightened arousal, mediated by norepinephrine, may enhance an officer's ability to focus on contextually critical stimuli, i.e. the detection of threats or criminality. By sharpening perceptual focus and prioritising essential sensory information, these underlying neural mechanisms may support quicker and more accurate interpretation of environments or situations, enhancing the operational utility of TCN (see also: Critchley & Garfinkel, 2017; Yerkes & Dodson, 1908).

Central to work within the field, Damasio (1996; Bechara et al., 2000) proposed that bodily sensations arising from the gut (those mediated by the vagus nerve via the gut-brain axis) act as neurophysiological "markers" that influence and guide decision-making (see also: Damasio, 1999a, 1999b). The process is particularly prominent in situations of uncertainty, or where stress and arousal are present (i.e., commonly within policing). This is defined by the 'body-loop', where emotive events (those charged with, e.g. fear, detection of threat, excitement, etc.) expressed through visceral presentations (somatic markers, e.g. rapid heart rate) influence decision-making by guiding afferent feedback to the brain. It does so via the vagus nerve, subject to its tone, and influences higher-order cognition and goal-directed behaviour (Poppa & Bechara, 2018). These processes of adaptation have far-reaching consequences for how individuals navigate instinctual and unconscious perceptions – that which "doesn't feel right" – including the alteration of motivational urges (Poppa & Bechara, 2018). This concept is particularly relevant to TCN, as officers – particularly those in proactive roles – frequently cited how visceral sensations (e.g. rapid heart rate, 'hairs on the back of the neck', feelings in the gut) are indicative of TCN and are often classed as the seminal characteristic of TCN being 'triggered', subsequently prompting conscious engagement with the situation. An officer's ability to accurately perceive and interpret these somatic effects may have significant implications for their decision-making, both in the immediacy and over time. For example, in situations of uncertainty – with which policing is synonymous – officers with more demonstrable interoceptive awareness may be able to hone their instinctual responses and make quicker, more accurate, and less turbulent decisions.

One study that demonstrated this in practice focused on the interplay between somatic markers and perception, and their influence on situational interpretation. Examining individuals' ability to feel and understand their bodily responses in the moment (e.g. noticing a change in their heart rate in response to a stimulus), they found that those who demonstrated higher levels of interoceptive awareness were more attuned to interpreting ambiguous

situational factors (e.g. recognising situational inequality). Conversely, individuals who demonstrated poor interoceptive awareness were less able to detect nuanced situational factors. Those who demonstrated an acute ability to manage their somatic sensations (e.g. able to calm their heart rate as/when it rose) were less likely to demonstrate emotionally charged behaviours (Dunn et al., 2012). The study offers a comprehensive account of how individuals' levels of interoceptive awareness influence and guide the interpretation of and responses to a situation, where those who are able to respond acutely to somatic sensations are less likely to be negatively influenced by their presence.

Applying the same concept to studies of practitioners – as this thesis concerns – Brown and Reid (2002) explored how the presence of somatic markers led to a shift in practitioner decision-making. Observing teachers in classroom settings, they identified key decision points based on 'instinct' and 'gut feeling', and found that the decisions taken could be reduced to somatic markers. The same research team subsequently identified that teaching practitioners develop a 'teacherly emotional orientation' shaped by somatic markers (Reid et al., 2017). This practice, which not only guides their decision-making unconsciously, was said to be central to their identity as a practitioner, which echoes the sentiments expressed by officers herein.

Of further relevance to this thesis, Herman et al. (2021) recently explored how somatic markers (bodily responses) affect decision-making in anticipatory situations and when facing uncertainty (across risk and ambiguity). They found that the strongest bodily responses occurred in anticipatory circumstances, regardless of whether risk and ambiguity were present. When risk and ambiguity were introduced, those who were able to more readily identify somatic changes within themselves (interoception) were able to more accurately distinguish between situations characterised by risk, or by ambiguity. This suggests that an officer's ability to perceive and respond accordingly to somatic signals (e.g. heart rate, sweating, surges in adrenaline) may influence their ability to make more accurate predictions within contexts characterised by uncertainty and risk (as, could be argued, defines the very nature of policing).

Further evidencing the importance of somatic markers in practitioner-led situations, a study by Hoogendoorn et al. (2009) measured the instinctual decision-making of fighter pilots against the somatic marker hypothesis. They found that in tactical situations, fighter pilots divert to instinctually dependent and emotionally driven somatic indicators to guide their decision-making. While these studies represent a small subsection of that which examines the effects of somatic markers, they represent the vast potential impact that the concept has on individuals' interpretation and response to stimuli, particularly within situations relevant to policing.

The interoceptive process, as it also relates to the 'sixth sense' and 'gut feelings', has found integration with other cognitive models. The notion that our cognitive processes and resultant

decision-making, particularly situational assessments under ambiguity, are influenced to some degree by physiological response, is now widely accepted across psychophysiological discourse (see also: Bechara, 2011; Bechara et al., 2000; Dunn et al., 2010; Guillaume et al., 2009; Herman et al., 2021; Ohira, 2010; Sokol-Hessner et al., 2015; Suzuki et al., 2003). Importantly, this advancement in our understanding of the ‘sixth sense’ and its relationship with ‘gut instinct’, supported by empirical evidence, places a spotlight on intuition; another phrase associated with TCN, albeit less frequently within the data.

5.6.7 Intuition

In a paper entitled 'Demystifying Intuition' (Epstein, 2010), it was noted that intuition suffers from a lack of definition. Akin to the ‘hard problem of consciousness’ (see: Chalmers, 2017, 2020; Melloni et al., 2021), intuition suffers from agreements that ‘it’ exists without categorisation. Complicating the discourse further, scholars in the field often oppose or contradict each other in their proposition of intuition. In 1995, Abernathy and Hamm conducted a non-exhaustive survey and identified 20 different definitions of intuition within literature, most of which focused on what intuition is not, as opposed to what it is (as cited in Epstein, 2010). Intuition, therefore, has not yet been assigned a valid foundation upon which any comparative analysis (analysing the phenomenon against a validated framework) might be conducted. This presents the most critical problem in offering a causal explanation of TCN as intuition: we are not yet agreed on what intuition is and concluding that TCN can be explained by the existence of ‘intuition’ seems an unsatisfactory hypothesis. However, ‘the hard problem of intuition’ – as it might be called – has recently received a new definition: the unconscious use of adaptive heuristics (Gigerenzer, 2023).

Building a career in the exploration of neuropsychological routes of intuition and intuitive thinking, Gigerenzer has pioneered an approach to intuition that rests upon its existence within larger societal contexts. Posited as a form of intelligence, he roots intuition in forms of ecological rationality, emphasising the importance of environmental structure and context in the application of heuristically informed patterns of thinking (Gigerenzer, 2023). Differentiating between the different forms of heuristics (e.g. adaptive, fluency), he argues that a valid conceptualisation of intuition requires the formulation of precise and testable cognitive models, leveraging criticism against the oversimplified and vague heuristic frameworks proposed by others (Gigerenzer, 1996). Critically, however, he acknowledges that any postulation of intuition requires a working definition which shares a consensus. Drawing upon the works of Bruner (1973), Hogarth (2001), Gladwell (2007), and Klein (1998/2017), he argues that intuition is:

“A feeling, 1) based on long experience, 2) that appears quickly in one’s consciousness, and 3) whose underlying rationale is unconscious.” (Gigerenzer, 2023, p. 3)

Gigerenzer's definition is, importantly and near-uniquely, drawn from critical consideration of literature which assists in the demarcation of often conflated concepts, i.e., the 'sixth sense' and 'gut feeling' (Gigerenzer, 2007, 2023). For example, gut feeling, Gigerenzer argues, ought to be considered separate from intuition, where intuition exists as a cognitive tool – as opposed to a biophysiological sensory mechanism – to assist in the interpretation and assessment of situations. Haidt (2001) also emphasised this distinction by remarking that intuition is indicated by arriving at the moment of conscious awareness following subconscious processes: "...Intuition can be defined as the sudden appearance in consciousness of a judgement, including an affective valence, without any conscious awareness of having gone through steps of searching, weighting evidence, or inferring a conclusion" (p. 818). As a result of assigning strict delineations to the boundaries of intuition, supported by empirical reasoning, Gigerenzer's definition holds weight as arguably the most rigorous and valid definition to date, and as such, is adopted within this thesis.

Key to the intuitive process are notions of expertise and environmental familiarity and feedback (Gigerenzer, 2007). Gigerenzer's work, while representing a significant and evidence-based move towards a universal definition of intuition, builds upon frameworks proposed by Hogarth (2001), who posits that the formation of intuition rests upon experience, and Klein (1998), who highlighted the importance of expertise (domain-specific experience) in intuitive processes. These approaches utilise notions of knowledge acquisition, formulated through exposures and classified as 'experience'. To understand how intuitively relevant knowledge is acquired, Hurtienne & Israel (2007) propose a continuum of prior knowledge. They stipulate that prior knowledge for intuitive use can emerge from different sources and, depending on the relevancy of knowledge, may contribute to intuitive behaviours. The first 'level' of knowledge, they posit, is that of innate knowledge, referring to instinctual reflexes present at birth. The second is that of sensorimotor knowledge, which is gained through interaction with the world and is predominantly based on sensory and motor information. The third is that of culture, which comprises knowledge acquired through cultural and subcultural exposure, but may be unattainable outside of that environment. Finally, the most attuned form of knowledge is considered that of expert knowledge, generated through extensive exposure to a profession or hobby (craft) (Hurtienne & Israel, 2007, p. 128). The combination of intuition as a domain-specific cognitive process, marked by conscious awareness of information, and intuitive behaviour as reliant upon expert knowledge derived from experience, aligns with the application of adaptive heuristics described by Gigerenzer (2007, 2023). Heuristics, in this regard, depend on the acquisition of domain-specific knowledge, which in turn can enhance predictive processing. By refining internal models resultant of exposure and 'updating' models in kind, predictive processes allow individuals to optimise identification and direct attentional focus toward relevant stimuli (Clark, 2013).

5.6.8 Predictive Processing

Complementing the importance of domain expertise gained from situational familiarity in training the brain to align with expectations (see: Klein, 1998), are models of predictive processing. Far from a new concept – but occasionally criticised for a lack of empirical evidence and imprecision in the terminology of ‘prediction’ (see: Litwin & Milkowski, 2020; Teufel & Fletcher, 2020) – predictive processing provides a theoretical explanation regarding the representation of stimuli in the environment based on prior information (Friston, 2010; Kersten et al., 2004; Lee & Mumford, 2003). While notions of the ‘Bayesian brain’ are heavily criticised for lacking a precise definition, which would otherwise ensure conceptual consistency (see: Corlett et al., 2020; Rahnev, 2019), and for lacking testability (see: Bowers & Davis, 2012; Colombo & Seriès, 2012; Jones & Love, 2011), the idea that the brain uses prior information to optimise processing has been posited in the literature for some time, in the guise of ‘associationism’ (see: Plato, 350 B.C./1999; Aristotle, 350 B.C./1930; Warren, 1921). Applying this concept to our understanding of the relationship between predictive processing and the minimisation of perceptual errors is now well-documented in contemporary studies, drawing upon developments in neuroscience to explain perceptual learning (see: Fiser et al., 2010; Itti & Baldi, 2009; Rao & Ballard, 1999). Validation of these models may suggest that officers demonstrate heightened perceptual awareness of certain behaviours, environments, or individuals, that align with their perceptual focus based on prior learning. Engaging in processes of attending to perceptual input, processing, learning, and updating – through reconciliation between expectation and reality – experience becomes a powerful contributor to perceptual efficacy (see: Bar, 2009; Clark, 2013; Hohwy, 2013). For example, officers expecting to perceive certain patterns of behaviour indicative of criminality may be ‘primed’, based on experience, to more readily detect anomalies in the environment that are registered as stimuli relevant to this expectation. As experience reinforces patterns of learning (e.g. nuanced knowledge of criminal behaviour), predictive models are strengthened, allowing officers to improve their perceptual accuracy. This is reflected in the data where officers discuss more readily identifying stimuli that sit ‘outside the norm’ or do not fit the ‘baseline’.

5.6.9 Cognitive Load

Despite neuropsychological mechanisms dictating much of the perceptual process, what can be perceived remains subject to the limits of cognitive load. The brain has finite cognitive resources, and as such, allocates these resources to stimuli deemed most relevant or urgent. This echoes processes in which task-relevant stimuli are assigned more perceptual weighting. This relies upon mechanisms involved in working memory, where the prefrontal cortex allocates resources from one’s working memory to capture and subsequently attend to

relevant stimuli. The inhibitory control system¹²², operated by the orbitofrontal cortex¹²³, suppresses competing stimuli attempting to interrupt the perceptual process of important stimuli (Tiego et al., 2018). This may manifest in policing contexts, e.g. an officer attending to a chaotic situation with multiple stimuli demands may focus on the most immediate threat, particularly one associated with a 'task' within their role (i.e., protecting the public), and suppress unnecessary distractions. Within the data, officers spoke about their ability to quickly analyse 'chaotic' situations and how this is considered a necessity for success within their role. The most relevant stimuli within the environment command prioritisation in these situations, initiating processes aligned with the concept of 'Attending'.

5.6.10 Cognitive Bias

When referring to processes concerning predetermined perceptual prioritisation, cognitive biases may be referenced to explain individual variances. One of the most well-known phenomena that explains how underlying biases determine what the brain perceives is the Baader-Meinhof phenomenon, also known as the 'Frequency Illusion' (see: Kolli et al., 2019). This cognitive bias occurs when the brain is primed to filter perceptual information according to knowledge input. Typically, this is demonstrated when an individual learns about a new piece of information (e.g. a vehicle make or model they are invested in) and subconsciously focuses on that information, resulting in perceptual weighting (i.e. 'suddenly' seeing the vehicle of interest more frequently). This leads to the belief that something is more common than it actually is or has become more common when it has not (Kolli et al., 2019). In policing, this may manifest when officers are briefed to look for a particular suspect (selective attention), thereby being biased toward spotting them. Confirmation bias may also cause an officer to inadvertently focus on confirming suspicions rather than maintaining objectivity in their assessment. In practice, this could lead to the belief that their TCN is more successful and reliable than it is due to priming processes. Combining processes associated with selective attention, selective interpretation, and selective memory, empirical studies have examined the effects of such biases. Lord et al. (1979) conducted an experiment with participants who held opposing views on capital punishment ('death penalty') and found that participants rated studies supporting their beliefs as more valid and convincing, despite all studies demonstrating identical methodological rigour. Similarly, Wason's (1960) seminal 'Selection Task' demonstrated that individuals tend to select information confirming their preformed hypotheses, readily disregarding disconfirming evidence. In psychology, 'Cognitive Dissonance Theory' explains that when information conflicts with one's beliefs, it is often dismissed in favour of confirmatory evidence, despite contradictory data (Festinger, 1957). Holding such biases can have significant impacts in policing, resulting in officers reinforcing stereotypes that lead to disproportional suspicion, or influencing the interpretation of evidence

¹²²A process of executive function that overrides and mutes specific stimuli.

¹²³Which regulates behavioural flexibility and cognitive processes (e.g. decision-making).

to support an expected outcome while dismissing exculpatory data (i.e., refusing to accept a legitimate account when it contradicts one's belief). Commonly, biases of this type can result in 'tunnel vision', where additional stimuli that may alter a belief are overlooked, and the existence of such biases in policing has been widely recorded (see: Elaad, 2022; Findley & Scott, 2006; Wallace, 2015).

6. Updating

The concept of updating emerged as a core idea regarding the origins of The Copper's Nose, understood here as the dynamic process of developing and adapting TCN. The act of updating requires the ongoing revision of knowledge, skills, and behaviours in response to the uses and applications of TCN. The fundamental components of TCN, as discussed in the 'Mediating' chapter, may exist within an individual before exposure to policing, or be limited in its existence. In either case, context-dependent updating occurs, influenced by the unique experiences each individual encounters.

As a core concept, it involves not only the acquisition of new knowledge, especially in 'craft' or 'tacit' forms, but also the dynamic processes through which individuals recalibrate their perceptions and understandings based on lived experiences. This process may be influenced by an individual's unique biopsychological and physiological state, which can either facilitate or hinder the development, adaptation, and learning processes associated with updating. This chapter explores how updating manifests in both personal and collective policing contexts, illustrating its significance in dynamic and evolving environments.

The concept of updating emerged during early data analysis when participants consistently discussed the development of experience and how this contributed to and aligned with processes of engaging, learning, testing, and trusting in TCN. This was considered in terms of comparative development: between their current self and earlier versions of themselves, as well as across specialisms and levels of experience. Discussion also addressed influential factors in development, including active mentorship, personality traits, officer 'types', and specific life exposures – both before and during their policing career.

Comparative analysis of the narratives within the data highlighted that updating was not simply about acquiring new facts or information, but about attuning interoceptive and attentional processes that contributed to the presentation of TCN as a mediator. Through constant comparison of codes and memos, the iterative process of updating and its contributing factors became evident as a key aspect of participants' experiences of TCN and its evolution. The process of updating revealed itself through the subcategories of:

Experiencing (trusting and testing), *Learning*, *Engaging* (motivation, curiosity, mentorship), and *Trusting*. As with the previous chapter, many of these subcategories relate to each other and to categories discussed under other core concepts.

6.1 Experiencing

Experiencing, and the importance of experience, emerged as a central theme within the data. While not a core concept, experiencing was found to be a persistent and pervasive contributor to the narrative on development. It simultaneously contributed to the theorising of the mechanistic, correlated, and causal factors that render TCN as a mediator (as discussed), and in the decision-making frameworks concerning its application (as will be discussed). However,

in each of these cases, the effects of experiencing were most strikingly linked to the concept of Updating, hence its inclusion as a subcategory here.

Experiencing refers to the totality of encounters and exposures that shape the development and presentation of TCN. As a subcategory of Updating, Experiencing captures the cumulative nature of exposure. This can occur through on-the-job experiencing; whereby real-world policing interactions provide officers with a 'training ground' to hone their TCN. For example, repeatedly observing patterns of growing tension in a crowded place prior to a conflict incident is likely to sharpen an officer's awareness of similar patterns in the future. However, on-the-job experience is just one component of the valuable experience that contributes to TCN. The second component is life experience, which may occur prior to or outside of policing. Pre-policing experiences can shape baseline intuitions, especially if an officer has been exposed to interpersonal conflict, high-stress or high-risk environments, or criminal adjacency¹²⁴¹²⁵. These contribute to an officer's predisposition toward and awareness of subtle environmental cues in complex situations which may overlap with their experience¹²⁶. Similarly, these

¹²⁴"It's a dynamic risk assessment that people do and people that have been more—, had a high level of exposure to risk management or who have had say, more adverse childhood experiences involving things like violence or, you know, hairline triggers, that sort of thing, I think they are more sensitive to it and develop a lot faster. I think people who've had quite sheltered lives up until that point who've maybe just come out of an educational background, haven't had a chance to interact with the world and realise that the world bounces back. It's not like—, as I was saying, it's not to say that they won't develop and it's not gonna be a great tool in them. It's just it's better that they're with someone with that, so they can see that there's extra skill sets out there that you need to start to develop into you. It's not necessarily gonna change your decision making, but it might certainly save your life." (Phase 1 Interviews > P10F08 Transcribed, p. 3)

¹²⁵"I learned a lot from people that was hanging around with that did actually go out and commit crime..." (Phase 1 Interviews > P01F14 Transcribed, p. 2)

¹²⁶"About five years ago, the experience in the police was massively kind of different. It was kind of a lot of people with ten years plus, and I'd say there's probably going to be a kind of, a year where someone kind of develops into kind of a fully-fledged officer who can deal with all the types of incidents and has that full instinct ... I think it could be kind of having that instinct kind of embedded in you kind of from birth, you're just one of those people who kind of can pick up on situations and can pick up on and kind of things that don't feel right about. But I think some of it comes with experience." (Phase 3 Interviews > 3P03F08 Transcribed, p. 3)

experiences may produce a heightened physical awareness relevant to TCN¹²⁷. Interoception – the acute awareness of internal bodily states and visceral responses, such as increases in heart rate, rising adrenaline, etc. – provides a critical feedback loop for TCN. Officers speak of their ability to “feel” when something is wrong (e.g. literal gut feelings) before engaging cognitively. Oftentimes, officers refer to situations where they recognise that something is ‘wrong’ about a situation before identifying what (stimuli) or how they have made that determination (see: ‘Mediating’). Biological sensitivities are likely to enhance an officer’s responses to sub- or unconscious perceptions, which may increase their levels of attention towards particular stimuli.

Within the GTM ‘coding families’ framework, Experiencing also occupies the process, dimension, and strategy families. As a process, Experiencing represents the gradual and accumulative acquisition of situational and context-dependent knowledge that manifests as tacit understanding, commonly referred to as ‘experience’. This encompasses both on-the-job experiences acquired throughout policing and life experiences external to policing that inform an officer’s situational familiarity¹²⁸¹²⁹. These experiences contribute directly to the development of TCN, exposing officers to patterns of criminality, deception, aggression, and

¹²⁷“I think you’re a product of your upbringing as a person; so you’re a product of, like, your knowledge and experience of what you bring to the police as a whole. So that might be things that you’ve grown up with, things that you’ve experienced throughout your childhood, and equally through things you’ve experienced in that life before the police, and you build on that through all the police service, through experience.” (Phase 1 Interviews > P02F08 Transcribed, p. 1)

¹²⁸“...you bring your own experience to work, and then you develop that within work whereby, you know, you learn through all your kind of senses once you’re here through what you’re here, what you see, what you’ve what you do and what you experience. And that is, it all becomes a developmental sense.” (Phase 1 Interviews > P02F08 Transcribed, p. 1)

¹²⁹“I’ve seen some cops who just hit the ground and with their life experience or personality can cut through that no problem and just have that ability straight away, really proactive, and they’re heralded and seen with a lot of kudos amongst colleagues.” (Phase 1 Interviews > P01F08 Transcribed, p. 2)

other relevant contexts¹³⁰. Over time, these iterative processes refine TCN as a mediator, enhancing its context-dependency¹³¹. Within the dimension family, differences in exposure influence the development and presentation of TCN. The type and nature of policing – such as urban versus rural settings – shape the heuristic frameworks officers develop, reflecting the

¹³⁰“I started off with none of it [TCN], and I had to develop. I’ve known officers who’ve come from a rough side of town, and who have been involved in some kind of level minor criminality in their lives, kinda thing, and hung around with a few scallywags over the years, really, and they bring that perception to the police, because essentially it’s all about deceptions and lies and criminality, that’s what we’re trying to sniff out, really. If you’ve never been exposed to that, I think, it’s difficult to pick up on it, and it’s not until you’re exposed to it regularly within the police, and you kinda take that mantra that some people are gonna tell me some kind of porky, not always earth-shattering, but someone will-, even the most honest of people I will expect them almost to tweak something because they feel a bit embarrassed or shy, kinda thing, most will tweak it a little bit. So, I think if you’ve been around the officers that I know that have maybe joined the job a little bit later and have a bit more life experience, a bit of life experience around the rough old mates and they’ve maybe done a few dodgy jobs at one time, hung around building sites types, they will have that sort of developed already, a little bit better, than some clean-cut young person who’s had a fairly nice, well-balanced life. I think it’s a surprise for them when everyone’s lying their arse off to them.” (Phase 1 Interviews > P08F11 Transcribed, p. 3)

¹³¹“...when you go out into the big wide world in uniform for the first time, you’re thinking impact factor straight away. And I remember years ago working with an old bobby who’s well retired now. And he said, out of nowhere—, we went to a job and out of nowhere this guy has head-butted him. OK. Well, me seeing that, I’m thinking, ‘well what’s he done wrong there? Well, he’s let someone get close enough to head-but him for starters’. So personal preservation; do not let anyone get within arm’s length as they’re saying, keep my arm’s length. So, for me, definitely experience from speaking to other cops and hearing that police officer say to that ‘suspect, last time, I did this, someone ran away from me’. You get this experience, practical experience on job experience from speaking to people that’ve been there, that’ve made the mistakes, from the observation of watching it go wrong and thinking how would I have done that differently? When you’ve been in situations that have gone wrong, thinking to yourself, what could I have done differently? How could have dealt with that different?” (Phase 1 Interviews > P01F17 Transcribed, p. 4 - 5)

types of crime or situations they encounter more frequently¹³². Similarly, TCN evolves differently in proactive roles compared to investigative ones, as the demands of these roles

¹³²"I think especially it's like the people that are still doing it [practising TCN] as well because a lot of people spend time in certain roles and then they either leave the job or move to roles where they're not involved in that kind of thing anymore. You know, more office-based roles or more supervisory roles where you're not out on the street seeing things anymore. But you know, there's certain people who are still in those roles where they're still frontline, still out and about seeing things all the time. And the people that I can think of that immediately-, if there's a couple of people that immediately spring to mind, like in, in my force that I just know were really good at it, and like they've really got a sense for it that, they're even more experienced than I am, so I think it does almost follow your experience. I think the longer-, if you've got that ability, the longer you're doing it, the better it gets, I think, which I think just makes sense, doesn't it?" (Phase 2 Interviews > 2P02F35 Transcribed, p. 2 - 3)

affect the development and application of situational awareness¹³³¹³⁴¹³⁵¹³⁶¹³⁷¹³⁸. Additionally, variations in interoceptive sensitivity – the ability to detect and interpret internal physiological cues – may further influence how officers perceive and interpret environmental stimuli, highlighting potential biophysiological heterogeneity as a factor in perceptual abilities. Within the strategy family, active mentorship emerges as a crucial mechanism for embedding

¹³³“I was only on Uniform for two years and then went into CID, so then you sort of turn, sort of more factual and reasonable lines of inquiry and things like that [over TCN].” (Phase 1 Interviews > P05F08 Transcribed, p. 1)

¹³⁴“I do think that there are some officers that have it more, and I’ve noticed that when it comes to working with different colleagues that have more experience in proactive policing.” (Phase 1 Interviews > P05F17 Transcribed, p. 2)

¹³⁵“The thing is with proactive policing, it’s definitely a different thing from, you know, general policing. Your general policing, you’re sort of a slave to the radio, you go to job-job-job, and I think that can detract a lot from either acting upon it [TCN]” (Phase 1 Interviews > P06F11 Transcribed, p. 1)

¹³⁶“Sometimes there is a right or a wrong in investigation, and some people are just better at it than others ... I suppose with that TCN, you could be a great PC on the street and not take any crap from people and know when people are lying to you and all that stuff ... but from an investigation point of view, yeah, you’ve gotta see all the warning signs, and have a funny feeling about this doesn’t all add up and you’ve got to be, like I said, methodical and go back sometimes and review evidence and reread a statement and take the time. So, I have taken myself right back to the beginning, again, the whole extra mile again ... that’s how you’re gonna do a good job, be a good copper and have a good result.” (Phase 2 Interviews > 2P03F20 Transcribed, p. 3)

¹³⁷“If you’ve got those transferable skills where you are aware, you are looking, using that sixth sense which is probably all your senses combined, then it can definitely be developed, but on the flip side of that, there’s probably some officers that don’t have that, and you can try to teach it but it just means that maybe reactive policing isn’t for them as much as other policing roles...” (Phase 1 Interviews > P05F17 Transcribed, p. 2)

¹³⁸“I think a lot of it does stem from their background, their history, their upbringing, and I think their drive more than anything. When they joined the police, if they’re driven to go out and catching criminals, I think they’re-, they’re more switched on to have the instinct, to recognise who is wrong and who is right; whereas some people may look to go down to in the detective role where they won’t need their instincts as much because they are dealing with the aftermath rather than actually going out and catching criminals.” (Phase 1 Interviews > P01F14 Transcribed, p. 2)

experiential knowledge into TCN development¹³⁹. Experienced officers scaffold the development of less experienced colleagues, sharing their tacit knowledge to enhance the contextual precision of TCN, and incorporating mentorship into the broader framework of experiential learning¹⁴⁰.

As processes concerned with both BSP and BPSP, Experiencing provides the raw inputs for the development of TCN. It captures how on-the-job exposures, the nature and culture of policing, and biological and cognitive sensitivities in individuals combine to create a baseline situational awareness and understanding in each officer. As a BSP, Experiencing could be framed as 'Building Situational and Contextual Knowledge', reflecting how officers construct context-specific understanding through iterative and recurrent exposure to real-world

¹³⁹"I think a lot of it- it's either the culture-, a few different things: culture, their values, their tutor - because every single one of my students who I've tutored, they're all keen and proactive and it sounds big-headed, but they've all gone on to be either in proactive units, specialist operations, or Sergeants, and I think when you drive people and given the best of-...bar the latest one, the latest one is only young and he wants to stay on Response a bit more, but the results that I'm seeing off that lad, because he's younger and fitter as well, he's always catching the burglars. He's catching the robbery offenders. He's doing good statements; he's doing good investigations, and he's really found his feet with that sort of line of work. Whereas you'll clock tutors that aren't being proactive and they're not interested, or that- they might be very thorough and they might be very good at doing other things, but you'll be thinking well, you've got some down downtime here on night shift, get your student out and get them looking for burglars and robbers and general shitbags because, why not? And if the tutor doesn't drive it, that student doesn't end up being proactive." (Phase 1 Interviews > P10F17 Transcribed, p. 5)

¹⁴⁰"My tutor when I came through, they were kinda lazy, so I-, and my first say 10-20 weeks felt these characteristics being pushed on me, and I didn't call for as many jobs, and I only figured that when I started becoming my own cop, and then once I figured that out, then I started to be a bit more proactive, started to find myself, find my own work, and I think a lot of these characteristics and being propped down on to the younger officers who have been tutored by maybe not-so like, enthusiastic, or proactive tutors. Some tutors are like they've got less than 3 years, and I think that's wrong. I think-, I believe that if you've got less than 3 years you shouldn't be tutoring because you're still learning your trade." (Phase 1 Interviews > P09F08 Transcribed, p. 3)

environments, combined with active learning input from experienced officers¹⁴¹. Experiencing combines with Learning (forthcoming) in the development of TCN. As a BSPS, Experiencing ought to be considered as a process of 'Integrating Cognitive, Physiological, and Environmental Feedback'. It captures how interoception, interoceptive awareness and feedback (e.g. visceral sensations linked to unconscious perceptions), and environmental stimuli converge and contribute to an officer's interpretation¹⁴². With experience, officers develop a heightened sensitivity and enhanced ability to detect, recognise, and integrate these biopsychological signals (including those triggered by emotional state) into their situational assessments¹⁴³¹⁴⁴.

¹⁴¹"I used to always give people the benefit of the doubt and always think I was too nice for my own good ... but I remember being new in service and being with this bobby and him being like, 'this situation is ABC', and I was like, 'no, no, no, I think it's DEF', and he was like, 'look, this lad has another side to him', and I was like, 'no, he's lovely', and then the guy just said something and it was a perfectly innocent statement that was obviously deliberate on his part, and sure enough the guy we were dealing with flipped his shirt and got really aggressive, and so I said to him [the colleague] afterwards that he was bang on the money ... he'd obviously picked up on it and me being new in service, I hadn't."
(Phase 1 Interviews > P07F17 Transcribed, p. 2)

¹⁴²"There's not a single thing you don't get better at with practise, and it's, I mean, in a lot of ways I've not been taught it; you just naturally acquire it the more you deal with things, and like, you just know when a set of circumstances is just absolute rubbish because you deal with so many interviews where people just lie to you. You deal with so many victims where they'll lie to you - not necessarily maliciously, but like of embarrassment, or things like that, you know, and you just start to pick up on all sorts of different things that just don't ring true." (Phase 1 Interviews > P07F17 Transcribed, p. 2 - 3)

¹⁴³"I do think it's a self-developed thing. I think it's down to experience, and I think that people who are emotionally aware are more receptive to it and probably recognise it more often than people who are not emotionally-aware." (Phase 1 Interviews > P06F17 Transcribed, p. 2)

¹⁴⁴"What I think is that it's being exposed quite regularly to different types of situations. I guess where you are investigating things, and people are telling you lies, and then you find out things. So, over a period of time, you are aware of certain sets of circumstances and probably sets of behaviour, right, that you've learned over years, many years for some of us, right, so when you're confronted with a situation, or you first come across a situation, I'll use the term loosely, my tummy will tell me something's not quite right here, right, but what I think is happening is that that's my experience telling me that something's not right here, because in my head somewhere, I'm relating that back to previous experiences, probably subconsciously at that time, just the rational side of my brain hasn't caught up with the thoughts that are going through my head." (Phase 1 Interviews > P08F11 Transcribed, p. 1)

6.2 Learning

Whilst Learning is closely related to Experiencing, Learning refers uniquely to the process of refining and processing the raw information gained through Experiencing. As a subcategory of Updating, Learning emphasises the role of tacit knowledge, active learner engagement (see: Motivation, forthcoming), and learning frameworks (e.g. Predictive Processing Models) in the development of TCN. Learning occurs through practical experience (e.g. trial and error. See: Trusting¹⁴⁵), active mentorship (sharing tacit knowledge), and an officer's internal models of the world, especially those related to policing. These factors enhance TCN in context-specific ways.

Aligning with the GTM framework, Learning fits within the process, dimension, and strategy families. As a process of corrective Updating, Learning involves inputting new, supplementary, or contradictory information, establishing 'frameworks of knowledge' that mediate sensory stimuli. In the dimension family, Learning takes the form of implicit or explicit learning. Explicit learning includes training programmes and briefings to equip officers with new information, altering their situational judgement (e.g. detecting behaviour linked to criminality in high- vs. low-crime areas)¹⁴⁶. Implicit learning includes on-the-job experience, situational exposure, and trial-and-error¹⁴⁷. Both types are influenced by mentorship, which introduces a social and cultural aspect to learning through co-construction, reinforcement, and experienced guidance¹⁴⁸. Mentorship also features in the strategy coding family, embedding officers in a

¹⁴⁵"...that's perhaps an element of it; that you have to accept that your hunches aren't always right, or you might not be able to prove it, you know?" (Phase 1 Interviews > P02F17 Transcribed, p. 3)

¹⁴⁶"I think it can be taught, but I think it needs to be taught and instilled from an early stage of your policing career." (Phase 1 Interviews > P02F14 Transcribed, p. 2)

¹⁴⁷"I don't think instinct is something you can teach someone, but I think you can teach them the skills to get there quicker." (Phase 1 Interviews > P03F08 Transcribed, p. 3)

¹⁴⁸"...I almost think it's like the difference between training and coaching. And so, I would say in my vocabulary that training is almost like that formal official process where we go through stuff and actually you know, I sit down people in front of the classroom and say, 'here you go, here's some learning'. You get PowerPoint open. We'll all go through it together. Coaching is that more flexible, ad hoc, 1:1 type process where it's tailored more to that individual, and that is the way you'd always get something like this across when it's behavioural based." (Phase 1 Interviews > P02F08 Transcribed, p. 4)

culture of collective experience where experiential knowledge is used strategically¹⁴⁹.

Predictive updating is also part of the strategy family, as officers engage in a 'learning by doing' process, refining their TCN through ongoing action and prediction adjustment in the process of Assessing¹⁵⁰.

As a BSP, Learning can be framed as a process of 'Refining Predictive Models', illustrating how officers individually and collectively update their situational and contextual awareness by refining their beliefs and assessments. This ongoing and iterative process demonstrates that TCN is not static but continually evolving¹⁵¹. As policing contexts change (e.g. criminality, priorities), so too do the models that shape officers' assessments. Within the BPSP framework, Learning becomes 'Cognitive Adaptation', a feedback-driven process that corrects interpretation, assessment, and belief. This refinement through exposure allows officers to resolve errors in prediction or judgement, cementing Learning as a transformative process

¹⁴⁹"When I'm tutoring someone, and somebody will say something, I can quite often see it. Where some-, especially if you're in an interview, and somebody will say something, and if I'm working with a junior person that little bit of micro detail or that little bit of omission or something, it's just lost on them, and my- I get a little bit like 'woah what was said there?', you know what I mean? And I will then have to pick that back up...and then it's that learning game where I'll say to them [the junior colleague], when they say that in interview, they're not really answering the question, or they answer it qualitatively or something like that, that's what they've [the junior colleague] missed out on because they've just listened to what's been said rather than actively listened, if I can use that term, do you know what I mean? So, I'm like passing that on and developing their nose if that makes any sense?" (Phase 1 Interviews > P08F11 Transcribed, p. 2)

¹⁵⁰"You definitely can teach them, and teach people the signs to look out for, and that's what we try to instil in them [the new officers] as they don't get that in the first few years, and I think if you're not taught it by your tutors within the first few years, then I think you can perhaps go through your service without developing that skillset, so yeah, I definitely do think it can be taught to a certain extent." (Phase 1 Interviews > P02F11 Transcribed, p. 4)

¹⁵¹"Actually, good officers make luck, and they make luck from experience, and they make luck through trial and error, and actually like anything else, it's a learning process where they build synapses in the brain which identify things that are out the ordinary." (Phase 2 Interviews > 2P07F20 Transcribed, p. 4)

that converts experience into actionable knowledge¹⁵². It provides the cognitive and social frameworks necessary for the development of accurate and reliable TCN function¹⁵³.

6.3 Engaging

Engaging is a subcategory that emerged, referring to the intrinsic (internal) and extrinsic (external) aspects of active processing that underpin Updating. Closely related to notions of 'mindset', Engaging captures the quality and nature of being engaged as it contributes to the Learning, Experiencing, and Trusting processes of Updating. Intrinsically, Engaging can refer

¹⁵²"You can teach the law, you can teach what your Powers are which is great and wonderful, and the ability to write reports and everything else, is necessary, but we live, we function, as a police force on consent from the public. We only build trust and rapport by interacting with people, and you're only going to get the right information if you know what to pick up on, and what to act on. Like, if you had someone who was a victim of DA, just telling you, 'yeah, everything's fine', you know, and you weren't having that TCN, you wouldn't pick up on those little 'help', the help in their eyes, the subtleties, the stories they have of the pizza, all those sort of things, those call-takers have got to have that instinct that something's not right, they can then plan out and make sure that the person talking isn't exposed by talking to the police. So, it's that sort of thing that you can't-, you can nurture over time and anyone can do it, but it's not something you can do academically. It's a practical element of instinct." (Phase 1 Interviews > P07F08 Transcribed, p. 2)

¹⁵³"Whenever I've worked with someone who have 30 years, 28 years at the job, they are so good at it. And I love learning, so for me to watch them, and observe how they do things, is-, I'm far from it, but if I learn even one skill or one method of dealing with something, that's me tooled up for the next time I'm dealing with something like that." (Phase 1 Interviews > P04F14 Transcribed, p. 3)

to the personality traits of an officer¹⁵⁴¹⁵⁵, reflected in qualities of motivation or curiosity¹⁵⁶¹⁵⁷; the cognitive availability of an officer, reflected in their levels of attention and focus; and their internal motivators and goals that prompt engagement¹⁵⁸. As an extrinsic process, it can refer to external measures of Engaging, including the level of investment in the officer's development, the opportunities afforded, and the types of active learning or mentorship provided. As an interactive process between the officer and their environment (including the officers with whom they work), Engaging is foundational to the development of TCN. Reflecting an officer's drive and capacity to learn, their receptivity to external guidance (mentors), and their keenness to develop through engagement with on-the-job practice (active

¹⁵⁴"I mentioned emotional intelligence; I think that links to it. I know some people who are, by definition, a psychopath – and I don't mean that in a nasty way, but you know, personality-wise, and they're not, you know, I know that can lead to all the criminality and things, but they're not, it's just that is their personality type, they're quite narcissistic. Great coppers in lots of ways, but they've really poor emotional intelligence and they don't have any street craft or TCN..." (Phase 1 Interviews > P01F08 Transcribed, p. 4)

¹⁵⁵"I think you have it in you, but it's honed in different ways, and you know, because we are all professionally curious as you say, and we have to dig and dig into people's lives and ask the difficult questions – and I think that if you haven't got that, like, nose, so to speak, that knows to push the boundaries and push people to ask the difficult questions, I don't think you'd ever be a good officer in the first place." (Phase 2 Interviews > 2P01F20 Transcribed, p. 4)

¹⁵⁶"I think every cop would say to you that they are naturally, sort of, inquisitive or nosey people, or like to know what's going on." (Phase 1 Interviews > P03F17 Transcribed, p. 3)

¹⁵⁷"I think our expectation is one of the qualities I often say is, as a police officer, is that you need to be curious or, you know, to put it bluntly, you need to be nosey, don't you? You need to have that professional curiosity to think, to question things, to think 'well, why is that happening', or 'why has someone said that', or you know, just don't assume things – just question them and be professionally curious." (Phase 1 Interviews > P02F08 Transcribed, p. 4)

¹⁵⁸"I think by exposure for somebody with that sort of attribute and the right mentality and the right work ethic, you would probably certainly develop some of that [TCN]. You would certainly start to know where to look and start to understand what the sort of signs are of something that's amiss or whatever. I don't think you could teach it in a classroom. I think it would be very difficult because you're going to need a long period of time to affect somebody's behaviours and personality... but I think you can teach it to a certain extent." (Phase 1 Interviews > P12F17 Transcribed, p. 3)

learning), the process of Engaging fosters a continual cycle of knowledge acquisition, integration, and application¹⁵⁹¹⁶⁰.

Central to Engaging are forms of intrinsic engagement. Individuals each possess levels of baseline motivation and curiosity that drive their goals and ambitions, which ordinarily translate into their active participation in environments and situations¹⁶¹. In doing so, the processes of Learning are enhanced, leading to Updating through adaptation. Oftentimes, levels of motivation stem from personal values, professional commitments, and/or a desire to learn and develop¹⁶²¹⁶³. Personality traits – particularly those of open-mindedness and curiosity – are considered fundamental in further shaping an officer's ability to engage in

¹⁵⁹“Some people are more minded to sort of self-generate work, and that's part of what it is. It's part of a 'I come to work, I get paid, and I want to do something, and I don't want to sort of sit and wait until something happens'. I think part of the problem of policing nowadays is it is very much demand-led and it's a kind of skillset and an ability that's getting lost. But that's part of it. So, part of it is the natural disposition to it, and part of it is that you see other people doing things, and you think, 'oh, well, he got that particular arrest because of this, you know, he was looking for a particular thing'. I think part of it is you learn off others as well, if you're that way inclined.” (Phase 1 Interviews > P09F17 Transcribed, p. 2)

¹⁶⁰“[Speaking of a colleague] He ferrets shit out, and he finds stuff, and he's just good at it. And he's got absolutely no background in policing... he's probably an outlier, he's the anomaly, but he's got no background in policing, he's got no parents that were police officers, he's got no parents that were criminals, he's just good at that shit. But he's probably good at that shit because he's interested and committed and wants to work...” (Phase 1 Interviews > P01F11 Transcribed, p. 2)

¹⁶¹“If something doesn't feel right, we act on it, satisfy ourselves, and ultimately protect the public and reduce crime.” (Phase 1 Interviews > P04F08 Transcribed, p. 3)

¹⁶²“I would say some people develop it [TCN] faster than others. I don't know if it's perhaps, maybe, an attribute of somebody who's particularly keen, or somebody who is really determined, over somebody who is maybe less bothered by finding that little extra. But, maybe, there's the old description that we always use to say in a police context...some people are thief takers, that's what they get called, good thief takers. And they all tend to be quite determined individuals, very single-minded when it comes to dealing with people and, you know, they're very passionate about the job. I think probably anyone could be a good thief taker in that respect, but it's probably more on the individual that maybe that's just not the kind of policing that they're interested in.” (Phase 1 Interviews > P06F08 Transcribed, p. 2)

¹⁶³“I think sometimes it can't be learnt because some people are very strong-willed in their own characters, and they'll just see the world as they see it, and you can't really teach people who don't want to be taught.” (Phase 1 Interviews > P09F08 Transcribed, p. 4)

dynamic environments, leading to qualities beneficial to TCN development¹⁶⁴. Concurrently, concepts of 'being engaged with', or extrinsic relational engagement in the form of active mentorship, peer support, and collaborative learning, are key external factors that exploit and sustain engagement. The nature of Engagement is cyclical and requires ongoing contextual engagement. As officers encounter new contexts or challenges that require heightened attention or effort, situational variation demands that officers revisit and recalibrate their levels of engagement. Balancing intrinsic motivation with external inputs like mentorship and professional feedback, the process of Engaging ensures a commitment to situational attendance¹⁶⁵.

¹⁶⁴"You can teach certain things. You can teach people to spot the telltale signs and spot the body language and spot the psychology surrounding it. But there's only so much you can teach in being able to see things. Whereas if you can't put them together to form some kind of logical, analogical reasoning or try to put them into some kind of working strategy, then some people can't be taught. ... some people can't be taught to ride a bike, because physically they can't put themselves or move their feet in a way and be so coordinated as to get themselves over without hitting the wall. It's just the way people are made. For me, you can nurture it to a certain extent. You have to have the predisposition and the psychology and the personality type for me to want that to drive you. Otherwise, you get cops who will say, 'oh no, we just can't do anything about that'. Whereas you get people who will say, 'I'll find out a way of doing something about that. I will exhaust every duty, and I'm going to find out, and there's something that I can do with this. There's something in there that I can do'. Naturally, the police will attract different personality types. You can't have the same personality type in every single police service, as that wouldn't breed diversity anyway. Robotic people doing the same thing over and over again. You do need the different types. You need the go-kick-the-door-down types, and you do need the thinker sat in the corner. You do need both, so for me, you can teach, but you can't be solely reliant upon teaching. It has to be predisposed. You have to have that want in you." (Phase 1 Interviews > P12F08 Transcribed, p. 4)

¹⁶⁵"I think neighbourhoods [referring to Neighbourhood Policing Team(s)], we're used as a second-tier response team. We go to quite a lot – especially myself, we go to a lot of Response jobs, so we don't always get to be proactive. It's good, and like, we can help the young officers that are on shift, and we can help them... the experienced coppers who are a bit more proactive, they'll look at us – what we're looking for, what we're after, obviously, and they'll see a situation that doesn't seem quite right to maybe an experienced officer, where the younger officer might just take it for what it is, and they might just write the job off. Whereas they could do a bit more digging into the whole family, the whole history, and you can try and pass these instincts on. So, I think it can be learned in some cases. I think I had to learn it myself because I was very, very enthusiastic, myself, when I came into the job. I got my tutor – he was a great man, but was obviously kind of lazy, so it didn't get passed down to me. So, the instincts and my own intuition, I think I've developed myself." (Phase 1 Interviews > P09F08 Transcribed, p. 4)

As a concept aligned with the process family, Engaging represents the sustained investment necessary for developing TCN (to its most effective state), where officers iteratively refine their perceptions by actively participating in real-world policing contexts¹⁶⁶. This process requires balancing intrinsic and extrinsic factors, creating multidirectional feedback loops that integrate external knowledge with personal and professional motivation. Dimensionally, Engaging operates across a spectrum of activity and receptivity. At one end, officers actively seek out challenges or opportunities to deepen their understanding, often resulting in their being known as a ‘motivated’ or ‘proactive’¹⁶⁷ officer. Conversely, a lack of engagement or disengagement can hinder the Learning process and, in turn, the Updating process, which may be more prevalent in stressful or demoralising circumstances. Whilst much of the Engaging process can be cultivated by external factors (i.e. the implementation of active mentorship programmes), the extent of engagement may also be influenced by the personality traits and intrinsic motivations of each officer¹⁶⁸. Within the strategy coding family, Engaging can be understood as reflecting the deliberate and conscious choice(s) that an officer makes to immerse themselves within the policing context and the resultant opportunities¹⁶⁹¹⁷⁰. This can include proactively seeking learning opportunities, requesting feedback, and setting goals relevant to their professional career that may facilitate greater exposure to policing contexts¹⁷¹. Additionally, forces and police organisations play a role in fostering engagement

¹⁶⁶“I think it’s a combination of upbringing, passion for the job, street smarts, and wanting to do a good service and have job satisfaction.” (Phase 1 Interviews > P03F11 Transcribed, p. 3)

¹⁶⁷Used in this sentence as a descriptor, as opposed to referring to those in proactive roles, albeit both may be true simultaneously.

¹⁶⁸“You get good people and bad people everywhere. Some that are good, some that are lazy and can’t be arsed.” (Phase 1 Interviews > P05F11 Transcribed, p. 2)

¹⁶⁹“Policing is a lifestyle.” (Phase 1 Interviews > P03F08 Transcribed, p. 1)

¹⁷⁰“You end up changing as a person, and you kind of get into that mindset on and off duty.” (Phase 1 Interviews > P03F08 Transcribed, p. 2)

¹⁷¹“You do get better with experience, but I do think there’s probably an element that people with that sense get drawn into the occupations where it’s kind of an asset, almost.” (Phase 1 Interviews > P08F17 Transcribed, p. 3)

by crafting collaborative and supportive environments where investment in officer development is prioritised¹⁷².

In terms of BSP, Engaging can be viewed as a process of 'Socialisation and Integration'. Through ongoing mentorship, peer collaboration, and investment in officer development, officers are able to learn the heuristics and skills that shape their operational and professional effectiveness. Relational dynamics and acknowledgement of engagement of officers, both within the wider organisation and amongst colleagues, ensure that engagement remains a productive contributor to the development of TCN¹⁷³. As a BPSP, Engaging reflects processes of 'Motivational Regulation': where officers align their internal drive with external demands through psychological processing¹⁷⁴. This might take the form of, for example, actively regulating their commitment and reaffirming their motivations for serving as a police officer during periods of stress or high operational demand. Similarly, maintaining engagement internally may require external reassurance from peers or mentors, contributing in kind to the Trusting process (forthcoming).

6.4 Trusting

Trusting exists as a necessary byproduct of Experiencing, Learning, and Engaging, influencing and contributing to each component mechanism in turn. It represents the culmination of preceding processes and reflects the confidence officers develop to rely on

¹⁷²"I would like to work with someone who is a really good officer and is experienced, but what makes a good officer? That is a question...because I could be working with someone who is really experienced, been in the job for 25 years, and I just don't agree with the way they deal with members of the public. Or I could be working with someone who has been in the job for 25 years and his instinct is great, his skills, his skillset is great, I really want to learn from you; however, it's their style of teaching. Are they willing to teach or are they just very arrogant about the fact that they've been in the job for so many years and actually they don't really care about a newcomer, and don't really want to teach them anything? So, anyone who is open to teaching and helping me learn and develop is a person that I would want to spend time with." (Phase 1 Interviews > P04F14 Transcribed, p. 3)

¹⁷³"You feed off of each other as well. You feed off of each other and you don't want to miss anything, you become even more sort of hyper-vigilant and looking for stuff." (Phase 1 Interviews > P02F11 Transcribed, p. 3)

¹⁷⁴"...wanting to do well, combined with being passionate about a job, when you're out there and you're scanning and you're doing your things, that's TCN." (Phase 1 Interviews > P03F11 Transcribed, p. 2)

TCN as a mediator to guide decision-making and action¹⁷⁵. A fundamental component in determining subsequent action, trust is built incrementally through successful application, where mentorship and validation can enhance the process¹⁷⁶. Trusting can be compartmentalised into the development of self-trust, and in reference to reinforced trust through mentorship and operational support.

Within the coding families, Trusting can be categorised into the dimension and strategy families. As a process of dimension, trust varies in scope from trust in oneself, trust in the operational parameters that speak to freedom of use, and trust in others (validating or undermining an officer's judgement)¹⁷⁷. It is similarly affected by the degree or strength of trust, referring to tentative or established confidence¹⁷⁸. As a strategic dimension, trust can be

¹⁷⁵"I'm experienced, maybe have a bit of confidence as well, because sometimes you have to be prepared to take risks and you have to accept that you might get it wrong and be really, you know, not brave, but you have to be really content that if you get it wrong, you're not gonna, you know, you're not gonna lose a great deal of sleep over that. You have to be prepared to get things wrong to be able to make good decisions, if you're not—, if you're gonna worry about your reputation of being, you know, of getting something wrong in it, everybody knowing that you got it wrong and you're gonna worry about the stigma of that, then you know, for my money, don't do the job because you'll be a rubbish investigator because you'll never be prepared to make a decision until it's so blatantly obvious that actually anybody could make the decision. You could get a-, you know, you could get the cleaner in and they would make the same decision quicker than you would, so if you're not prepared to make decisions and get it wrong, then don't do the job." (Phase 2 Interviews > 2P04F35 Transcribed, p. 4)

¹⁷⁶"When I speak to the right-, develop a suspicion that they've got something on them, I might search them accordingly if those thresholds are met, but if you don't have the confidence to say, 'well, I don't have much more than a hunch', you're not going to act on it, and it's a practice thing, you know, and it probably even gives the person a bit of a 'well, I thought there were lying, I tested it and they were. So next time when someone's doing something similar, I'll have the confidence that my gut instinct, my copper's nose is right'. (Phase 1 Interviews > P01F08 Transcribed, p. 2)

¹⁷⁷"You might have it like a little bit of an instinct for it early on, but I think as your career develops you just-, you pick up on signs easier and you trust your gut instinct a bit more perhaps. I think maybe some new officers are perhaps a little bit less confident to trust what's in their gut. I think, you know, the world nowadays, you have to explain everything really, you know, and you have to have a reason for doing everything and with that context, it's then difficult to explain why you just followed your gut instinct because you can't really put it into words. You just knew something was not right or something was wrong, and I think I've always done a lot of proactive policing in every role that I've done, especially now, which is all I do, and you know, it's just recognising that somebody isn't right where they are at the time." (Phase 2 Interviews > 2P02F35 Transcribed, p. 1)

¹⁷⁸"I think it is something that the more I did, the more I trusted it." (Phase 1 Interviews > P04F11 Transcribed, p. 1)

built incrementally by mentorship or peer validation, as well as reflexive practice, which can make the process of Trusting more or less influential. As a BSP, Trusting can be viewed as a process of 'Establishing Operational Confidence', whereby the trust held by an officer reflects the validation bestowed upon TCN internally and externally. External reinforcement in this case can strengthen internal confidence. Within the BPSP framework, Trusting can be categorised as 'Resolving Uncertainty Through Validation'. Psychologically, this can refer to the process of resolution when employing TCN in inherently uncertain situations and updating beliefs accordingly. Trusting can be challenged in high-pressure or high-risk decision-making where notions of internal trust or external validation affect reliance¹⁷⁹.

Trusting marks the culmination of the cyclical process of Updating, whereby an officer determines whether to act upon TCN or not¹⁸⁰. Accumulated knowledge, experiences, and exposures, alongside internal and external factors of influence, instil confidence in an officer's ability to rely upon TCN, translating cognitive and biopsychological processes into action. This confidence in judgement is critical, especially in dynamic environments where officers are required to make swift decisions based on their instincts and training.

6.5 Discussion

Drawing upon the findings presented and the resultant substantive theory, this section employs retroductive reasoning, or 'abduction,' to propose possible causal or contributory mechanisms that underpin TCN. Retroductive reasoning, as outlined in Chapter Three, is a form of inference-based analysis that translates empirical data from a set of observations into the 'most likely' explanatory hypothesis. Given that TCN is a phenomenon within a practical environment (the policing context), providing an explanatory framework is crucial for understanding the implications of this phenomenon's existence. This section aims to develop theoretical insight and suggest explanations regarding the development of TCN.

¹⁷⁹"I think you've either got people who are proactive and they're really good and they're trying; you've got people who aren't proactive because they're lazy or don't know how to be; or you've got people that might want to be proactive, but they're too stressed and busy to actually go and be proactive and trust their gut instinct. And I think if you stay stressed and not want to be proactive, you lose that skill or that motivation to be skilled in that area." (Phase 1 Interviews > P10F17 Transcribed, p. 5)

¹⁸⁰"If you stay rigid with strategic things, it's got its pros and cons I think, but as a proactive cop who's just frontline, who's not tasked with one thing, you'd be going, well, actually, you know, I'm sat here now and nothing's going on. I'm gonna go and see what that person is doing, or that vehicle is doing, but then you run the risk of, 'well, hang a minute, I've just left the burglary hotspot where I should have been sat', so if a burglary happens there, you're gonna kick yourself, so it's just trusting your gut instinct." (P10F17 Transcribed, p. 9)

6.5.1 Experience

The influence of experience can be traced back to the contributions of John Locke (1689), William James (1890), and Edmund Husserl (1913), underpinning long-standing debates often summarised as 'nature versus nurture'. The philosophical foundations of these theories were instrumental in shaping modern discourse, particularly Locke's (1689) theory of the mind as a blank slate ('tabula rasa'). Locke postulated that knowledge originates solely from sensory experience, which shapes how we perceive and interpret the world. Experience, he argued, writes itself to form our understanding. Similarly, James' theory (1890) posited that the stream of consciousness rests upon continuous lived experience. Although the origins of 'consciousness' remain central in modern philosophical debate (see: Chalmers, 2017, 2020), this theory remains prominent in establishing our psychological understanding of the mind. Later, Husserl (1931) addressed the nature of phenomenological experience, asserting that our perception and structure of the world are rooted in first-hand experiences. Much of these philosophical contributions have been foundational in the development of psychology and neuroscience.

In cognitive science, John Dewey (1938) focused on the integration of experience and learning, emphasising the central role of experiential processes in shaping our understanding and knowledge acquisition. Piaget's *'Origins of Intelligence in Children'* (1952) – which continues to function as a key theory in educational psychology – asserted that children construct knowledge through interactions with their environment. Experiences in these environments are key to developing schemas (to be discussed, forthcoming), which underpin how individuals frame and adapt to the world. Kolb (2014) expanded on this, outlining the experiential learning cycle, which argues that knowledge emerges through the transformative process of experience (concrete experience, reflective observation, abstract conceptualisation, and active experimentation). As neuroscience became mainstream, theories regarding the impact of experience on knowledge development further evolved. Neisser (1967) explored how experiences undergo a system of encoding, structuring, and retrieval, framing cognition as a process shaped by iterative and cyclical interactions with the immediate environment. These theories were later tested in embodied cognition studies. Varela, Thompson, & Rosch (2017) integrated cognitive science with phenomenology, finding that 'understanding' is shaped by embodied experiences mediated by sensorimotor interactions with the world, placing individual interpretation at the heart of experiential knowledge. Clark (1999) explored the role of embodied and situated cognition, determining that understanding and perception are formed through real-time interaction with subjective perceptions of the environment. Damasio (1996) further connected psychophysiological states to interpretations of external realities, emphasising that bodily experiences (somatic markers) and emotions are integral to perception and decision-making processes. These works collectively explain the central role of experience in shaping our understanding and perception of the world. The growing integration of sensory perception, cognitive processes, and

developmental learning suggests that the causes and effects of experience are dynamic, multifaceted, and inherently subjective.

6.5.2 Tacit, Expert, and 'Craft' Knowledge

One concept of knowledge-based experience that emerged from the data and earlier discussions on intuitive decision-making and behaviours is 'expert knowledge', often referred to as 'tacit' knowledge. Tacit and professional learning are central to understanding how practitioners, particularly in hands-on fields, acquire and develop their skills. Described as the ability to "know more than we can tell" (Polanyi, 1966, p. 4), tacit knowledge refers to experience-based knowledge gained through practice. This personal process is shaped by an individual's unique exposures and immersion in a professional environment (Polanyi, 1966) and acquired over time through repeated exposure and engagement with real-world contexts (Eraut, 2000). This subjectivity makes tacit knowledge difficult to explicitly teach or formalise into a learning framework. Instead, its transfer often combines formal education, which is considered 'explicit' knowledge (e.g. classroom-based input), with on-the-job practical training and mentorship (Nonaka & Takeuchi, 2001; Schön, 1983). Tacit knowledge, also referred to as 'expert' or 'domain' knowledge in professional settings (see: Patel et al., 1999), has also been discussed as 'craft knowledge'.

Craft knowledge, named for its prevalence in professions requiring skill-based practice, encompasses the subtle practices and judgement developed over time that result in craftsmanship (Sennett, 2008). First appearing in practitioner-based literature in 1978¹⁸¹ in an article entitled, 'The Social Sciences, Teacher Education, and the Objectification of Craft Knowledge' (Desforges & McNamara, 1979), craft knowledge's importance in practitioner decision-making was initially studied in educational settings influenced by heuristic thinking (see: Calderhead, 1991; Grimmet & MacKinnon, 1992; Leinhardt, 1990; Raban, 1990; Rowell & Dawson, 1981). Shortly thereafter, craft knowledge was identified as a valid form of professional reasoning in the medical field (see: Anderson, 1992), and later applied to law (see: Scharffs, 2001). Eventually, studies on learning by 'craft knowledge' and its importance emerged in the policing context (see: Fleming & Rhodes, 2018; Innes, 2010; Roach, 2023; Rowe et al., 2016; Willis & Mastrofski, 2014; Willis & Mastrofski, 2018; Willis & Mastrofski, 2019). Whether framed as 'tacit', 'expert', 'domain', or 'craft' knowledge, the literature unanimously highlights its significance in developing professional practice, including areas that lack formalisation. Understanding how these 'learnings' are embedded within practitioners is of critical importance.

6.5.3 Learning Processes

The concept of learning presented as a highly nuanced and layered concept within the data. The consensus shared among participants was that TCN could not be taught in formalised,

¹⁸¹Based on systematic searches of literature databases.

'classroom' settings and therefore the traditional learning settings did not contribute to its development. This was particularly emphasised by those who had proactive careers, and less by those in investigative roles where the nature of the job was described as less reactionary. Some elements of strategic policing – that which could be attributed to explicit or systematic knowledge, e.g. where to go, what to do, how to execute your powers – were considered teachable; however, it was emphasised that the most valuable knowledge related to TCN was that obtained through tacit learning. The process of tacit knowledge transfer is known to emerge through prolonged engagement, mentorship, and immersion, as opposed to explicit instruction (i.e. classroom-based learning) (see: Lave & Wenger, 1991, 2001). Within policing, craft knowledge is thought to play a vital role in the assessment of situations, allowing officers to make reasonable and informed decisions about unfolding situations (Willis, 2013). Without opportunities for practical experiential learning, officers may struggle to acquire the situational understanding required to fulfil the requirements of the job (see: Lum, 2009). Central to how knowledge becomes exchanged, transferred, and adopted in professional settings is the concept of communities of practice, which more commonly refers to the concept of apprenticeship (learning by seeing, learning by doing, and learning by reflection) (see: Lave & Wenger, 1991, 2001). The hands-on learning environment enables the transfer of tacit forms of knowledge through engagement with real-world contexts, particularly when the knowledge is shared actively between experienced officers and those less experienced. Learners in professional contexts absorb intuitive approaches through methods of observation and practical application alongside expert guidance. This is echoed in the findings, where officers referenced at length the influence of mentorship on their learning of 'the craft' and the operational parameters in which they felt they could apply, reflect, and thereby develop their TCN. The emergent theory therefore articulates the importance of engaging and learning – including the effects of mentorship – within the development process.

6.5.4 Active Mentorship

Research has shown that an engaged and active mentor can significantly enhance motivation, resilience, knowledge retention, and engagement of learners. For example, positive experiences of mentorship are linked with learner motivation and engagement, the sharing of environmental attitudes, and professional growth (see: Crisp & Cruz, 2009; Deci & Ryan, 2000). Mentors also play a critical role in the transfer of tacit knowledge, which is invaluable in professionals that can be categorised by practical applications of craft, domain, or expert knowledge. As emphasised in the works of Lave and Wenger (1991), communities of practice whereby those inexperienced within the field learn by engaging in relevant tasks under the guidance of an experienced practitioner are particularly important for skill-based professions and experiential fields, e.g. law enforcement, healthcare, and education. Contextual and observational learning allows learners to internalise practices which may be difficult to verbalise, such as reactionary or instinctual decisions (Eraut, 2000). Simultaneously, working

intimately¹⁸² with an experienced practitioner allows for questioning and probing to occur where required, facilitating space for various learning styles. The development of these learner-mentor relationships also encourages the sharing of feedback, which is a critical mechanism in the transfer of tacit knowledge. Emphasised by Schön (1983), reflective thinking is central to the recognition of patterns relevant to the context, which in turn develops and improves cognitive processes concerned with intuitive thinking. As intuition – as defined in terms of being a unique cognitive process – develops over time through forms of experience, mentors can actively encourage the cultivation of intuition by providing guided exposures. As a result of these exposures, inexperienced officers become experienced in navigating complex environments and renegotiate their concepts of relevant stimuli (see: Klein, 2011). This is of critical importance in the field of policing, where officers are often required to make quick, high-pressure decisions in rapidly evolving scenarios, often based on their assessment of perceived stimuli alone. Guided (or engaged) reflection encourages an iterative process of internalisation, where learners develop deeper and more nuanced insights into ambiguous and complex situations in real-world contexts, thus improving accuracy in context-dependent decision-making. These situated forms of learning are fundamental in the development of tacit knowledge, as they contextualise the ‘why’ behind the ‘how’, and allow for naturally occurring deviations from otherwise ‘standard practices’ to form part of the learning material. Cognitive models have also shown that for professions which concern field-based operation, maximising levels of immersion through hands-on experience is crucial to understanding the ‘practice community’ and improving strategic thinking (Lave & Wenger, 1991). Within policing, elements of craft knowledge are likely to include how identified stimuli ought to be assessed in terms of relevance and subsequent decisions to act (e.g. whether something ought to be classified as a ‘threat’ within the context) (see: Willis, 2013). This process is improved by engagement with the professional community and relevant professional exposures, becoming embedded as a legitimate practitioner, resultantly. Where mentors provide practical insights, allowing for learning on the job, encouraging critical thinking and reflection, and supporting the application of knowledge in real-world contexts, they are engaging in ‘communities of practice’ (Lave & Wenger, 1991). Mentors can play a significant role in the facilitation of this process by promoting the learner’s involvement and participation, sharing their own communities of practice (Wenger, 1999). By acting as an engaged mentor, mentors foster an environment in which learners feel they receive autonomy-supported guidance, constructive feedback, and the necessary encouragement to further motivate themselves to engage in professional development (Ragins & Kram, 2007). In this respect, active mentorship is a primary enhancer of knowledge transfer – particularly that which is transferred tacitly – of significant relevance to the development of TCN. The notion of active mentorship concerns not only the transfer of knowledge but an emotional investment in the process, particularly within the context of

¹⁸²When compared to at-distance learning or in formal classroom settings where interaction is less focused and shared across a wider group.

policing. Emphasising the importance of emotional engagement, trust and rapport between a mentor and their student are foundational requirements to facilitate the expression of concerns and reluctance, the asking of questions and clarifiers, and the taking of risks. This is especially crucial in environments where learners may be required to overcome acute challenges and develop resilience (Allen et al., 2004); an example being the policing context. Developing secure relationships within the learning space with mentors who are committed to offering personalised guidance and encouragement is key to increasing career readiness and producing higher levels of professional success (Johnson, 2015). However, for these processes to be successful, the engagement of the learner (or the inexperienced officer) is a requirement. As Boud and Walker (1998) articulated, the transfer of tacit knowledge similarly depends on a learner's willingness to engage and on demonstrating traits that are conducive to the environment.

6.5.5 Engagement as Motivation, Curiosity, and Personality

Studies dedicated to the impact of engagement, particularly in learning environments, have shown that engaged students are more likely to experience positive learning outcomes, as engagement fosters persistence, curiosity, and the application of higher-order thinking skills (Fredricks et al., 2004). Furthermore, self-determination theories posit that engagement is a condition of intrinsic motivation (Deci & Ryan, 2000). Engaging (or engagement), which is commonly defined as the extent of an individual's involvement in, enthusiasm for, and commitment to a particular activity or role, influences the vigour, dedication, and absorption that one experiences in their activities or tasks (see: Schaufeli & Bakker, 2004). It is broadly considered to be distinguishable into three main 'types' of engagement: behavioural engagement – concerning the level of (active) participation in tasks or environments; emotional engagement – concerning the degree of positive emotions or feelings towards tasks or environments; and cognitive engagement – concerning the depth of intellectual investment and effort towards a particular task or environment (Fredricks et al., 2004).

Emergent from within the data were notions of officers possessing inherent forms of 'curiosity' or 'nosiness', and more broadly 'proactivity'. Officers regularly identified these traits within themselves and others consider to have a strong 'TCN', distinguishing themselves from 'lazy' officers – where 'laziness' was considered at odds with the development and presentation of TCN. A consideration is whether the existence of levels of engagement, both in attitude (mindset) as well as underlying personality traits, introduces a developmental bias, e.g. those officers who display higher levels of motivation are engaged with more readily, thereby facilitating their enhanced development; whereas officers who appear unmotivated or less keen to engage are not engaged with as frequently, limiting their potential development. This notion is supported in educational psychology, where it has been shown that motivation and engagement are reciprocal entities. Engaged learners may experience heightened motivation as their active learning promotes success and reinforces their desire to engage (Wigfield &

Eccles, 2000). Higher levels of motivation can also lead to more active engagement, which, in turn, sustains motivation, thus creating a positive and self-sustaining cycle (Skinner et al., 2009). Conversely, those less motivated may be perceived as disengaged and risk being overlooked for developmental opportunities or even considered an unworthy investment for active mentorship. This parallels findings in educational psychology, which have found that teachers subconsciously provide more learning support to motivated students, reinforcing the engagement-motivation cycle and creating a developmental disadvantage (Deci & Ryan, 2000). Additionally, the connection between motivation and engagement as influential factors in the development of TCN underscores how individual dispositions, as well as wider social and professional contexts, can have a significant impact on the development of contextual phenomena. Officers who work alongside motivated colleagues may, in turn, experience heightened engagement influenced by positive motivational climates (Bandura, 1978). This influence, and the idea of positioning an officer alongside or in comparison to their peers, is discussed further, forthcoming.

Motivation and engagement have been tied to individual differences that influence behaviour across various contexts. The concept of 'trait-like motivation' appears as a characteristic tendency to desire involvement, development, and achievement in challenging situations, such as those experienced in policing (Judge et al., 2002; McClelland, 1987). Research on the 'Big Five' personality traits demonstrates that motivation and engagement are intrinsically linked to conscientiousness and openness (Judge et al., 2002) – the latter of which similarly appeared in the narratives of officers. For example, those who are higher in these traits report similarly higher levels of diligence and responsibility, driving higher presentations of intrinsic motivation to engage with the demands and responsibilities of the policing role. The nature of intrinsic motivation, as it appears in Deci and Ryan's (2000) Self-Determination Theory, views engagement and motivation as being driven by internal satisfaction as opposed to external reward. This contributes to the notion that officers will pursue professional development, including that linked to TCN, where it is perceived as a useful contributor, and cultivate self-sustaining motivation where they are in possession of and receptive to intrinsic motivation. This is consistent with the idea of engagement from within the self, which is part of the cognitive engagement typology of investing in professional excellence to meet personal standards (Fredricks et al., 2004). Similarly, the perception that personality types with high levels of internal motivation engage more readily with exposures that contribute to the development of TCN aligns with the concept of 'reciprocal causation' (Wigfield & Eccles, 2000). This concept suggests that the more motivated an individual is, the more engaged they are, thus making the learning process more effective, and in turn enhancing their motivation further. This is supported by theories that posit that high performers operate by setting measurably higher goals and work consistently towards them, including in the face of adversity (Costa & McCrae, 1992). For example, studies in performance psychology have identified a strong association between motivation and resilience, arguing that high performers

are more likely to possess a growth mindset that encourages perseverance when challenged (Dweck, 2006). Similarly, these same individuals are more likely to demonstrate enthusiasm for learning and development, actively seeking to refine their skills and deepen their expertise (Silvia, 2008). Each of these characteristics can be related back to personality traits explored in Ryan and Deci's Self-Determination Theory (2000), and the 'Big Five' traits earlier mentioned, as mindsets of this type are linked to curiosity – through the drive for exploration and learning (Dweck, 2006; McCrae & Costa, 1997; Silvia, 2008). The notion of 'professional curiosity' emerged frequently within the data within those who reported a particularly strong presence of and reliance upon TCN. It further emerged in conversations with those who act as mentors, referencing that student officers who demonstrate curiosity (along with other key traits) often develop quicker in this regard.

Whilst theories of motivation have evolved, much of the definition of motivation before now has centred around behaviours to reduce negative or unpleasant experiences (see: Miller, 1971). This earlier focus on the aversive aspects of motivation has since developed, with contemporary perspectives focusing on the broader impacts of motivation and engagement. Notably, motivation is now known to have long-term impacts on our mental and cognitive processes (Brown & West, 2013; West & West, 2019). West and West (2019) describe motivation as a dynamic interplay between reflective processes and automatic processes, both consciously and subconsciously influencing cognitive behaviour. Desires and impulses resulting from motivation-driven cognition are generated by evaluating future satisfaction, which fuels engagement with tasks and stimuli that align with goals. Brown and West (2013) also highlight how traits linked to motivation interact with cognitive processes and shape decision-making. Within neuroscientific studies, incentive motivation is now broadly accepted as closely correlated, if not the same as (neurologically), 'reward', 'want', and 'desire' (see: Berridge, 2004; Berridge & Kringelbach, 2015; Moan & Heath, 1972; Stuber & Wise, 2016; Toates, 1986). Motivational salience has become synonymous with neural components related to positive incentive salience (subjective wanting responses), as well as negative salience (fear) (see: Reynolds & Berridge, 2008; Richard & Berridge, 2011). These forms of incentive salience motivations often become cue-triggered, promoting attentional focus and facilitating action and engagement (see: Berridge, 2001, 2012; Carver, 2009; Flagel & Robinson, 2017; Ryan & Deci, 2000; Saunders & Robinson, 2013). Practically, this manifests as incentive-driven mechanisms prompting processes of active detection to identify potential triggers or stimuli within the immediate environment (Berridge, 2018). The effects of incentive-led conditioning have long been influential in Pavlovian psychology and have resultantly led to the development of incentive motivation frameworks, readily used to explain the impact of incentive salience (Bindra, 1978; Toates, 1986). As discussed within the concept of 'Mediating', heightened attentional focus presents as a key feature of TCN, and motivation is known to play a critical role in directing attentional focus and sustaining goal-directed behaviour. As Locke and Latham (2002) describe, the more motivated an individual is towards

a particular goal, the greater the cognitive resources that will be allocated to the perception and interpretation of relevant stimuli. This is owing to the salience of the stimuli, enhancing investment and relevance to an individual, which increases attentional focus. In neurobiological terms, the dopaminergic system is responsible for directing reward-based responses and facilitating the neural ability to direct attention-related resources towards specific stimuli. This has been shown in neuroimaging studies in which individuals experienced heightened levels of dopamine and concentration when focus is directed towards a stimulus associated with reward (see: Schultz, 1998, 2002).

These developments highlight the intricate interplay of causal and mechanistic factors that may contribute to the development of TCN. Underlying personality traits (e.g. motivation, curiosity, open-mindedness), effective learning environments (focusing on hands-on learning and active mentorship), the transfer of tacit knowledge, and the prominent role of cognitive and neural structures collectively inform the theory. Resultantly, this theory hypothesises that whilst experience holds significant influence, it is not sufficient in isolation – a sentiment supported by the data. This suggestion is supported by Bradley et al. (2006), who conducted an experiment to analyse the impact of experience and tacit knowledge within the professional setting. Examining a group of instructors and students at a training school, they sought to measure two key characteristics of tacit knowledge: holistic perception and use of abstract concepts, drawing upon structured knowledge frameworks in practice. It was theorised that the experienced group ('instructors') should possess greater levels of tacit knowledge if experience alone were sufficient and therefore would outperform the inexperienced group ('students') in demonstration of contextual perceptive abilities. However, they found no evidence of superior holistic perception or application of abstraction in the experienced group. Instead, when the groups were reorganised based on performance measures, the higher performers showed structural evidence of cognitive models that contained both measurable characteristics. The results of Bradley et al.'s study are further demonstrated in Hunter and Hunter's work (1984), where cognitive aptitude was found to be the most valuable predictor for the development of job-related abilities, with experience rated as the seventh most-influential factor. Explaining why experience may be considered particularly influential in discussions within the data regarding length of service ('experienced' versus 'inexperienced' officers), McDaniel et al. (1998) found that the influence of experience on job performance and skill acquisition was compounded when practitioners had fewer than five years of practice. However, the influence of experience on predictors of performance decreased in weight as the length (in time) of practice increased (e.g. length of service) and tasks became more complex. Instead, at these levels, cognitive ability became the primary influence in performance predictors (also see: Gutenberg et al., 1983; Snow & Lohman, 1984). For those concerned with practitioner development, this presents an important conclusion: "experience alone is not an indicator of expertise. Other factors, such as the cognitive ability to correctly structure those experiences, must also be present" (Bradley et al., 2006, p. 77). This is of critical

importance in our understanding of TCN, as an emergent theme from the data is the notion that whilst experience is seen as beneficial in the development of TCN, experience and the presence of TCN (deemed 'good' by extension) are not mutually inclusive. Building on this understanding, it becomes evident that a nuanced approach is required to examine how TCN may translate into practice based on these component factors. The ability and willingness to apply TCN to real-world and complex situations, particularly within the context of policing, is, based on the data, influenced considerably by the sociopolitical environment that surrounds modern policing. To provide a comprehensive understanding of how TCN may be applied, the forthcoming section explores how practitioners reconcile the existence of TCN with themselves and others within their professional roles and the wider context of policing.

7. Navigating

The purpose of this thesis remains to establish a grounded theory of The Copper's Nose, hypothesising what it may be (its constitution). However, in doing so, participating officers shared their accounts of TCN's value and impact in their practice (its application). As such, a contributing element of the emergent theory became *Navigating*: how officers 'rate' their own TCN compared to others (Positioning), how officers come to value TCN compared to organisational directives or standards of professional practice (Situating), and how they conduct dynamic assessments to reconcile or align between the two (Negotiating). This speaks to the very nature of being a police officer, their sense of 'duty', and how they believe they coexist as a professional individual and as a representative of a broader service. In the coming section, the emergent themes of Situating, Positioning, and Negotiating will be discussed in the broader context of contemporary policing. The aim of this subchapter is to highlight the value, influences, and impact of TCN, as a final offering from which future research may be developed. To that end, this section will not demonstrate an exhaustive cultural analysis but aims to frame TCN within the wider context of policing to facilitate a more comprehensive understanding of the impact of the phenomenon.

7.1 Positioning

Within the Navigating concept, Positioning reflects how officers evaluate their position in relation to their role, team (colleagues), and wider force. Focusing on the internal dynamic of Navigating, Positioning reflects an officer's relational judgements and how they measure or 'rate' TCN in colleagues in comparison to their own¹⁸³. This can be on an individual basis or as part of wider teams and specialisms where TCN is regarded as being more developed, attuned, and/or with greater freedom of use. This process is highly social, cognitive, and adaptive, reflecting the self-assessment processes of an officer and the abilities they consider to be important in the fulfilment of their role¹⁸⁴. In the immediacy, it is said to affect the way(s) in which an officer interacts with and relies upon particular colleagues, where the long-term

¹⁸³"We've got a fella here and he picks people out from all sorts, it's incredible. And you know, I could see you in the street tomorrow and probably forget you. That's how it is." (Phase 1 Interviews > P07F11 Transcribed, p. 3)

¹⁸⁴"I was one of these officers who was always stop and searching people and having a good, what we would call, a 'hit rate', so stop and search and you get something as opposed to stop and search, and you don't get anything effectively, so unskilled officers will fish. Proactive officers will target their fishing, and if you were to use it in that analogy, you've got the officers who would always be getting a bite and the officers who don't get anything. Well, the ones who are fishing randomly are just hoping they cast the net wide and see what you get. Obviously as a targeted fisher, I would go to a certain location, I would only use my bait sparingly and I would get pretty much guaranteed to get a hit 9 times out of 10 because you use situational skills." (Phase 2 Interviews > 2P05F20 Transcribed, p. 2)

impact may be to influence the career trajectory of an officer, e.g. deciding to join particular teams based on the 'types' of policing they are believed to conduct in reference to TCN¹⁸⁵.

As a member of the process coding family, Positioning involves the evaluation of colleagues' and non-policing counterparts' abilities regarding their TCN capabilities¹⁸⁶. This evaluation occurs both in real-time and over time, formulating a judgement based on interactions, observations, and reputational input. As a process, it is informed by explicit signals (e.g. observed behaviour and outcomes) and tacit perceptions (e.g. perceived competence). An example may include the judgement and subsequent determination an officer may make about a new-in-service officer's instinct (as a mentee or otherwise), and how well these align with situational expectations or perceptions of the more experienced officer¹⁸⁷. These judgements do not necessarily occur in isolation but are part of a wider relational feedback loop where officers continually adjust the measure of their own TCN against and alongside colleagues, leading to significant social adjustment¹⁸⁸. This is cited as affecting: assumed levels of colleague competency; relationships to and with colleagues, including forming a

¹⁸⁵"Everyone is good at different things. I'm not good at spotting a drug deal, for example. Whereas, like, I used to work with this lad and he could sense one from about 6 streets away, and he was always getting lock-ups for PWITS, because he could just tell, he could pick up on all sorts of things that I sort of couldn't and stuff, and if you made him do hotspots and things like that then you'd lose all of the results he was getting, end of." (Phase 1 Interviews > P07F17 Transcribed, p. 3)

¹⁸⁶"I tend to only have very switched on civilian friends, because like the non-civilians-, the civilian friends, they just don't get it. To be honest, I don't even with most people pick out 10% of the things I pick up on." (Phase 1 Interviews > P07F17 Transcribed, p. 1)

¹⁸⁷"I don't think mine [TCN] was never great, do you know what I mean. I don't think it was ever one of those, but I could have picked out-. So, when I first started on a shift of maybe 20 people and I could have picked four or five out who every time you went out on duty with them, they would find something, and you could pick another five who would never find anything, they wouldn't know something was happening if it was right in front of them. And whether they're-, you know, whether that's got some base in intellect or experience, or whatever, I don't know. But I remember thinking at the time, I wasn't-, there were perhaps a couple there who were only a couple of years on to the shift and they were as good as ones who had been on there for 10 years, so rationally I would probably say it was based on experience where I have been in circumstances before where I've got a burglar before or I've found somebody with a knife before or whatever it may be, but there's obviously a knack of it, or perhaps, you know, if you did a psychological assessment, I'm sure you'd say some people are naturally more inquisitive or their IQ is higher or whatever it might be, or better at certain things. But yeah, definitely, some people are better than others. 100%." (Phase 1 Interviews > P12F17 Transcribed, p. 2)

¹⁸⁸"I mean, I do know those officers and they some of them are phenomenal. They'll turn around and something's in front of them. I don't have that instinct." (Phase 2 Interviews > 2P06F20 Transcribed, p. 3)

shared identity as officers¹⁸⁹; the desire to work with or alongside particular colleagues (with both positive and negative recorded effects); and beliefs about the 'type' or 'standard' of officer¹⁹⁰. Fundamentally, the process of evaluating Positioning is one of assessments of competence, both of the self and of others, and the resulting effects¹⁹¹. Officers position themselves resultantly – within their team and the wider force or organisation – and these social adjustments, informed by the process of Positioning, have far-reaching implications for team cohesion, career trajectories, and wider policing culture¹⁹²¹⁹³.

¹⁸⁹"I think most officers with my length of service would probably do the same. I'm not sure about the newer officers that haven't got the same experience. But yeah, that's the good thing about being a police officer is that you're like, you're a street level bureaucrat. You're sorting out issues and sorting out problems on the street, and regardless of what the senior officers are doing, you're there and you can make your own decisions and arrest people if you think or see fit, or investigate things as you see fit, and I think that's one of the best things about being a police officer is that you've got that, and you're empowered to kinda do that, really." (Phase 1 Interviews > P08F17 Transcribed, p. 7)

¹⁹⁰"...from my experience it tends to be that the more experienced the officer, and sort of the longer they've been in the job, the more that they're you know better at it, if you know what I mean. I think it also depends on maybe the rank and things as well, you know, certainly higher-ranking officers aren't dealing with the public in the same way as the other officers are, so I'd say if they are in more managerial positions and they're not dealing with the public or it's not as public facing as other ranks then, then yeah. They're then not getting that experience. Whereas, if you've got someone, 30 years on the street then yeah, by the end of that 30-year period, they're gonna be pretty good at picking up on those subtle things from people." (Phase 1 Interviews > P13F17 Transcribed, p. 2)

¹⁹¹"Out of 10? I would say, I'd say [I'm] probably a 4. So, maybe don't see as much as other people, but maybe that's just because I work with people that are always in the right place at the right time, so I feel like I'm not as good as them. So, I would put myself in quite a bit lower, or I'm just too ditsy that I don't notice things." (Phase 2 Interviews > 2P03F35 Transcribed, p. 3)

¹⁹²"There is a clear distinction between people who either can do it or have it, and people that don't. I know I was incredibly frustrated going back on to Response team where people literally just drive around their eyes closed, or that was the way it would seem because they wouldn't pick up the basics." (Phase 2 Interviews > 2P02F14 Transcribed, p. 3)

¹⁹³"I think it's a 'you've got it, or you haven't got it' because there's police officers that will never, ever be that thief taker, they will never be that person looking to stop and search people. They're quite happy to plod along, doing the 999 calls or whatever it is they've gone to do in their careers, whereas other people, they will sit there, and you've got it, basically. It's very hard to explain. You either just have that instinct, or you don't have it. I could look at a car and say, there's something not right about that; whereas someone else might be looking and go, 'well, what is it?'" (Phase 2 Interviews > 2P02F14 Transcribed, p. 2)

Within the dimension coding family, Positioning involves navigating between the concepts of trust and doubt; confidence and scepticism; alignment and dissonance. Officers continually assess the competence of colleagues' TCN using relational judgements of their own perceived abilities¹⁹⁴. Trust is established through shared understanding and use of TCN and may increase through demonstrations of TCN capability and diminish when actions or outcomes fail to align with expectations. This is reflected in the perception of experienced and inexperienced officers, where experienced officers are regarded as having a 'better' TCN owing to their assumed depth and breadth of situational engagement and experience; however, this is challenged and confirmed based on evidence-based judgement¹⁹⁵. The elements of Positioning also highlight the balance between deference to instruction (i.e. operational tasking) and an officer's instinctive or TCN-led judgements. Strategically, Positioning leverages relational dynamics to optimise decision-making, action, and outcome. An officer may strategically interact and engage more readily with colleagues whose TCN is perceived as strong or complementary to their own¹⁹⁶¹⁹⁷. It may also manifest as avoidance (selective disengagement) as officers describe occurrences in which working alongside an officer with a 'strong' TCN may result in more work, leading to a reluctance to work with them

¹⁹⁴"I am what they call-, what is commonly colloquially known as a shit magnet. I can't leave the police station without some mad shit happening and it will come out of nowhere. I will just say people make jokes. I've got this reputation. I'll go out and my own officers will go, he's going out, what's gonna happen? They just know, they wait for the radio to go up and meet, and say yeah, got a vehicle making off or I've got people running off on foot or so, yeah, I'd say that I'm quite proud of my TCN. I'd like to think still, the couple of people out there that are even better than me and I think how they do it, but then, yeah, I think I'd say that I'm definitely a shit magnet." (Phase 2 Interviews > 2P06F35 Transcribed, p. 3 - 4)

¹⁹⁵"I think some copper's think their nose is way better than it actually is." (Phase 1 Interviews > P08F11 Transcribed, p. 2)

¹⁹⁶"I'd like to think I would have a relatively decent copper's nose, but I'd like to work with all the people who did as well, and it just makes your job easier." (Phase 1 Interviews > P01F08 Transcribed, p. 3)

¹⁹⁷"[on working with someone with a 'good' TCN] it massively encourages me and other people on that team ... it does drive performance, and it drives the performance of a team when you've got people like that on it." (Phase 1 Interviews > P01F11 Transcribed, p. 3)

at certain times¹⁹⁸¹⁹⁹; or a disagreement with their approach²⁰⁰. The process of strategising in this context may extend to the recalibration of roles, adjusting team interactions, and/or seeking validation from a trusted colleague on an attended perception. Conversely, officers may be disheartened or unmotivated to work closely with specific colleagues who are perceived as having a 'weak' or 'bad' TCN. In totality, this may influence a recalibration of their

¹⁹⁸"I'd rather work with somebody like that than work with someone who isn't interested in being at work, but it has its hindrances because you'd end up staying on for four hours, because he would end up coming across somebody and you'd end up locking them up for, like, four different offences because of stuff he's found. So, it has its pros and cons, you know..." (Phase 1 Interviews > P03F17 Transcribed, p. 3)

¹⁹⁹"Sometimes you think, 'right, we've got half an hour left before we finish, I don't wanna go out with you because we'll end up uncovering a massive ball of shit'." (Phase 1 Interviews > P03F17 Transcribed, p. 3)

²⁰⁰"It probably affects the way I will go about the investigation if I'm working with that person, if that makes sense, 'cause I make it quite clear early on, and I work with a fairly close team so they all know me by now, and we're all on a similar kinda wavelength, but when I'm working with other people or something I work with people on attachment to CID, then when they go down that route that they think their nose says this and all the rest of it, I'm old enough now to say to them, stop that, really, it's not what we're investigating, it's not how we investigate things. So yeah, it does affect-, if I think that's how someone investigates crime, I will think less of them professionally if they go by their instinct or their gut kinda thing about what's right and what's wrong. Because, at the end of the day, it's hardly meaningless, but it won't stand up in court. It may direct you, it might help you picking up on those evidential whiffs, if you like, that help you get somewhere, that- that TCN kinda thing, it's gotta be used in the right contexts at the right time, but to fall on evidential trail, and people who just think because they've spoken to somebody that they know what's happened, that's all they're relying on, I don't rate them very highly." (Phase 1 Interviews > P08F11 Transcribed, p. 3)

team interactions, choosing to join specific teams or undertake roles and responsibilities that align closely with their relational evaluations²⁰¹.

Aligning with the BSP framework of GTM analysis, Positioning represents processes of 'Social Negotiation of Roles, Responsibilities, and Teamwork'. This highlights how officers navigate their position alongside colleagues, establishing trust, and managing self and team expectations. The process may also reflect broader notions of kinship as officers align themselves with colleagues they trust and respect, perceiving them as aligning with their own values and abilities. As a BSPS, Positioning engages as 'Cognitive Self-Evaluation and Relational Positioning', where officers balance internal measures of certainty with the judgement or contributions of others within the situation²⁰². These determinations can influence decision-making: deciding on independent action or joint (collaborative) action²⁰³.

²⁰¹"It's not maybe one general function, like you know, better or worse at having that TCN, it's like I know some people who are just really, really good at dealing with drug related crime. All the events around sort of that the vulnerabilities around that, but they might-, you might be able to put them somewhere else and their-, yeah, they might have this amazing TCN for that, but then when they're moved, they just don't have it- they wouldn't-, don't have a clue, but they'd just be basing it off of their knowledge, the law and sort of driving, whereas someone else might have flagged something in a different area. And I think that's probably due to what we deal with on a day-to-day basis. You know what, what division of sort of jobs, if that makes sense, like the make-up of the jobs you deal with over a period of shifts would definitely affect it. There're people who work-, I'm currently like attached to a 'Neighbourhood' unit, and there's people here who are just, they blow my mind how accurate and how good they are at just dealing with sort of drug related problems. I don't know how they-, if they were to be put on Response, they'd probably have it incredibly high and proactive drug related crime queue crime sort of job list. That's not a bad thing, 'cause you need a diversity of, you know, experience. For some people, it's like, quite broad, you know, cause they've over the years, I've been on that unit, I've done this, I've done that. I've done that. I've done a lot of this. I always do overtime over here, and they can just sort of tell. I think it's definitely some people are better at it than others, 100% and some people-, I think some people maybe are just a little bit, they're turning up to work. They do their job to a really high standard and leave, I don't think they see it as like-, it's a job. It's not like a lifestyle or profession. They're not completely bought into it in the way that some people are with the ethos of it. I think that's probably where it comes from." (Phase 1 Interviews > P11F08 Transcribed, p. 3)

²⁰²"Some people say I can leave the nick and within 10 minutes, I'm chasing the car down the road, but yeah, there's always someone better than me." (Phase 3 Interviews > 3P01F14 Transcribed, p. 2)

²⁰³"The lad I'm working with at the moment is relatively new in service - he's only been in sort of 4 or 5 years. ... he's definitely got it. He picks up on stuff straight away, he's quite an impressive lad. And then, I worked with the lady before, like who had been in the job a long, long time and was an experienced cop in a lot of areas, but she didn't have the sort of the ability to see when something wasn't right." (Phase 1 Interviews > P02F11 Transcribed, p. 2)

This latter process is intertwined with the Assessing phase of TCN, where risk plays a part in assessment. For example, officers cite how those without 'good' instinctual ability attributed to TCN may hinder situations and potentially add an additional component to consider when risk-assessing²⁰⁴. This adds to the cyclical element of the TCN process and contributes more widely to officers' alignment with others, decision to work with or alongside colleagues, and their joining specific teams or specialisms²⁰⁵.

²⁰⁴"I suppose if you're working with someone who is really good, and you know, you think you trust their judgement in most things, then obviously you'd want to work with that person. If you work with someone who jumps to snap or irrational decisions, you wouldn't want to work with them as it's a lot more work, and it potentially can be a riskier environment." (Phase 1 Interviews > P02F17 Transcribed, p. 2)

²⁰⁵"I've delivered inputs to the stop and search- sorry-, to the tutors' unit about stop and search and trusting that gut instinct, but I also think that some officers are just not interested. Like, they think, 'God if I stop and search that'-'. In fact, it's twofold. There's laziness, or there's stress. Laziness, as in the cops just not interested in doing it, like, God, no. And someone said to me once, they were like, stopping a car is like a shit bingo. The best bingo is you stop and speak to him, and you find nothing wrong with the documents, insurance, or there's items illegal in the vehicle or the vehicle's stolen. He said, 'it's shit bingo' ... and I think it's just that it depends on the mindset and the culture as well that that cop's come from. So yeah, the other thing is stress as well because, why would you want to go and stop and search a car and potentially hand yourself with a PWIS which is 'Possession With Intent to Supply', why would you want to land yourself with a big PWIS file when you've got thirty other crimes that you need to investigate? Or cops just think, I genuinely do not have time to go and stop that car and potentially search that vehicle because I have got that appointment to go to or I have got to go and sit at the hospital and relieve my colleague from the early shift, and if I stop and search that car, my colleague is going to be 3 hours late off because of me, so I'm going to ignore that dodgy dealing that I've just seen because I have got to go and do XYZ. And we are still, as cops, pulled from what we should do. Police officers deal with mental health, social work, sitting at hospitals and custody sergeants not sending and CDO's up to hospital (Custody Detection Officers) up to hospital. I think being a little bit soft in terms of managing risk and saying, well actually yeah, you might have a minor cut on his head, but we'll manage that in house. You'll get a lot...most Custody Sergeants saying, 'no, hospital, take him to hospital', and you're thinking, 'great, there's an 8 hour wait at hospital', and just because we're police or we're with this person they're not gonna speed up for them so I think you've either got people who are proactive and they're really good and they're trying; you've got people who aren't proactive because they're lazy or don't know how to be; or you've got people that might want to be proactive, but they're too stressed and busy to actually go and be proactive and trust their gut instinct. And I think if you stay stressed and not wanna be proactive, you lose that skill or that motivation to be skilled in that area." (Phase 1 Interviews > P10F17 Transcribed, p. 5)

Ultimately, the notion of Positioning reinforces the extent of the social and psychological underpinnings of TCN, highlighting how TCN acts as both an individual tool for situational assessment (as a mediator) and as a component in relational frameworks.

7.2 Situating

Where Positioning reflects internal processes of assessment, Situating shifts the focus to external or outward-facing processes and Positioning. Encompassing how officers align their decisions and subsequent actions with broader team, organisational, and situational frameworks (including the balance of societal expectations), this process captures how TCN-mediated determinations are reconciled with external assessments and expectations. These external factors often involve understanding an officer's belief(s) regarding their duty, and what they represent within the role, against the backdrop of external narratives and the current landscape of policing²⁰⁶. For example, an officer may determine their TCN to be 'better' or

²⁰⁶"Most junior officers coming down through the policing pipeline these days have barely got a concept of what proactive policing is 'cause they never do it, right, they never do it. If they're not out there responding to a job, they're doing their paperwork for some other job, and that ability to patrol around and be a bit high profile and potentially actually stop stuff happening because I was always taught that the number one role of a police officer is, to prevent crime in the first place, then it's detecting and investigating and all that other stuff. Whereas it doesn't-, I do not see it happening at all [now] really. I'm trying to be slightly objective about that kind of thing, but-, so when it says about going down a certain route, kinda thing, yeah, I don't see that route working at all, because there are no police officers, and it will take a generational change and massive up-staffing and we're not even keeping up with attrition really, do you know what I mean?" (Phase 1 Interviews > P08F11 Transcribed, p. 4)

'more effective' in preventing crime than organisational directives²⁰⁷. This might include an officer dismissing a tasking or instruction to pursue a lead, and in doing so, navigating hierarchical structures to protect their decision-making. An officer may also consider public perception and adopt a stance accordingly, choosing whether to prioritise procedural adherence or public expectation²⁰⁸. This process of Situating – which fundamentally occurs as a measure and mechanism within situations in which an officer places themselves according to their perception of duty and purpose – reflects ongoing environmental and professional

²⁰⁷"That type of policing [referring to EBP] only affects certain crime types. It's not going to stop domestic violence, for example, or child abuse, you know. It's going to stop street crime, you know, and perhaps some burglaries. So, I do-, I think EBP has a value, but it's not on its own the answer because, as I say, that-, if you take those theories to the nth degree, they don't hold out, they don't work. Whereas, just understanding human behaviour is kind of what the police sixth sense is about really ... that comes because you're dealing with, quite frankly, a lot of the time horrible people, and you get to learn how these people live, behave, because you're in and out of their houses every day of the week when you're on Response. And you get to see very similar themes running throughout these people's lives, you know. They're obviously a lot of the people are kinda damaged individuals through the upbringing they've had, you know, they may have suffered abuse, domestic violence, or witnessed it, or had parents who aren't working and involved in crime, addiction, whatever else, and that kind of affects how they behave, and I guess that thread runs through a lot of society, and police are just there to just watch, to see it, so they just learn from that and just-, they get to understand how these groups of people and those in similar situations kind of, behave, I suppose. So, yeah, so I don't think-, I don't think there's anything great wisdom to it, I just think the police spend a lot of time with a lot of not very nice people, and just seeing-, just learning from that behaviour to see that, you know-, and just studying-, it's like they study that behaviour and just learn from that. I think anyone would do the same, I don't-, as I say, I think people might be predisposed to it [TCN] and maybe join the police because they're drawn to it, but I do think anyone could probably learn it. It might take them longer, but I think if they're going through the same experiences that police officers do, they'll have the same learning. But EBP, yeah, it's got its place, but it isn't the-, you know, you could invest loads of money into EBP, but it's not going to solve crime. It's a far wider issue than what the police can solve on their own. It's to do with society." (Phase 1 Interviews > P08F17 Transcribed, p. 6)

²⁰⁸"I think it's only a problem if you're kind of abusing your powers, and as a young officer, I was always taught that you don't need any power to just stop and speak to people, so you know, I've never-, I've never stopped and looked at someone and thought, you lot don't look right, and started turning out their pockets, unless I've had lawful grounds ... where officers go wrong is where they don't follow the procedures and the guidance that is there in PACE ... I've always stuck to that rigidly and it's always stood me in good stead." (Phase 1 Interviews > P08F17 Transcribed, p. 2)

sense-making²⁰⁹²¹⁰. Officers may be influenced by feedback from external entities, such as organisational or professional reviews, colleague opinion and support, or public response. Each of these factors may contribute to adjustments in officer decision-making, integrating considerations to maintain legitimacy and effectiveness, and contribute to the dynamic and context-sensitive processes at the heart of operationalising TCN.

Within the process coding family, Situating involves calibrating internal belief and decision-making with alignment to external pressures. This might include team or organisational directives, role and organisational mandates, or public expectation²¹¹. Practically, an example

²⁰⁹“There are people who are-, that I'd never in a million years think that they'd be well-placed to be in an administrative role, but they're very well-placed to go out and look for our County Lines dealers. And equally, there are really good people who aren't the best person to go out and look for Country Line drug dealers, so it's horses for courses. The balance needs to be right around all of this nonsense around degrees, that's why the balance needs to be right; that's not to decline degrees, but we don't need an army of potential CC, we need worker ants, do you know what I mean, who are really good at that, and that's what we want them for, and that's what we're recruiting for, we don't recruit them to write a thesis. We really need to come around to that, for me, but like I say, I know my place in the world...” (Phase 1 Interviews > P07F11 Transcribed, p. 2 - 3)

²¹⁰“EBP is such a strong framework and is pushed. It's a good framework, we need it, we need it, but I almost see that as that's the absolute bare minimum. That's our bare minimum. That's not our whole investigation. Bare minimum is, we hit all of those thresholds, but then alongside it we then have the professional curiosity. I think we had that investigative mindset that needs to be, to be encouraged within officers to sort of develop that, and they can do it. They can, I've got no doubt. And if somebody didn't want to do it, and sort of really pushed back against it, then obviously there'd presumably be performance issues there because why wouldn't you want to, why wouldn't you want to develop, you're an investigator, you're a police officer, ultimately that's your job.” (Phase 1 Interviews > P08F08 Transcribed, p. 4)

²¹¹“You can't teach it out of someone, it just will exist. I think that probably the biggest problem we will encounter in the future will be - I don't want to say red tape because we literally-, that's sort of our job as we work around laws, policies, powers, but there's always been the ability to use discretion and there's always been like, there's always been ways to implement things to get the result that you almost know needs to happen. So long as you stick within the sort of, you know, the powers and policy and you don't break the law, it's absolutely fine. But as we're moving further forward, I think that's maybe becoming a little bit more restrictive. There's a little bit more, well ... you can't get a positive outcome-, if you're doing something wrong for the right means, we're not allowed to do that. And I'm not saying that that has happened in the past, but I do feel like maybe it's getting more restrictive, like daily, new, they're not legal powers, they're just corporate policies coming out saying that you can't. You can't do this. You have to have done XY&Z. And I don't think the public would probably agree with that.” (Phase 1 Interviews > P11F08 Transcribed, p. 5)

might be an officer weighing their TCN against organisational directives, and the resultant public perception that may arise from following one or the other²¹². An officer ordinarily considers how the public may view their role, decisions, and actions, particularly regarding concerns of legitimacy, fairness, and trust. Similarly, Situating requires consideration of procedural directives and institutional priorities, which may extend to consideration towards the self-regarding job security, promotion, and reputation. Determination to act (or not) is likely to result from the influence of prior experience (of themselves or others) and feedback from broader systems, adjusting decisions accordingly²¹³. This speaks to elements of dynamic recalibration, where officers interpret feedback from their environment – inclusive of all factors aforementioned – and adjust their present and future decisions accordingly.

Dimensionally, Situating takes shape in the coding family as a process that spans situational autonomy through conformity. Autonomy, in this context, reflects a reliance on personal perception and individual judgement, emphasised when external directives conflict²¹⁴²¹⁵. This process is driven by TCN and its Mediating influence, particularly where their TCN may suggest a need to act that is not reflected in external priorities or taskings. Conformity,

²¹²“We got told quite early on that our careers are going to be built on the bones of all the corruption from the previous generations, which unfortunately people only ever will remember the bad. So, something like EBP, it’s going to keep people in work. It’s going to, you know, everything has to be justified. And it’s a framework that is going to help them down the line. I think it does impose quite a heavy workload on an already stretched service. I mean, our Neighbourhoods Team versus being able to go out and just be proactive, have a beat, know the faces, go into schools. They are bogged down dealing with strategy plans for organised crime, drug dealing and social behaviour, and they’ll never be free of it. It’s very much you can plan for everything, but if you plan- if your plan doesn’t account for certain aspects, they won’t be addressed in a timely manner. I feel like if you were just evidence based and none of it was your instinct, your TCN, anything like that, you feel like we wouldn’t be able to provide a full service.” (Phase 1 Interviews > P10F08 Transcribed, p. 4 - 5)

²¹³“It’s one of those things that when I was young-, when I was young in service and I would be out on patrol and with another member of staff and they would say, ‘let’s just go down there’ or ‘that doesn’t quite look right’, or ‘let’s stop-search somebody’ or whatever, it seems to be quite a productive thing, so I used to think that was quite a good, you know, it seems to be a good thing to have that. But I think as I moved through my career and into being a detective and then inspector ... and now it seems kind of counterproductive in many ways and it often is used as justification for things that you know perhaps are procedurally incorrect or whatever, you know.” (Phase 1 Interviews > P12F17 Transcribed, p. 1)

²¹⁴“Police officers’ autonomy and brains have got to come into it as well, and the ability to use discretion has got to be a key part of policing business - to be able to use discretion and decide where I should be.” (Phase 1 Interviews > P02F08 Transcribed, p. 5 - 6)

²¹⁵“You’ve got to be able to empower staff, and for me, that would win out every time.” (Phase 1 Interviews > P02F17 Transcribed, p. 4)

meanwhile, reflects adherence to organisational policies, societal expectations, or professional directives. Whilst officers may assume a broader stance or opinion, the nature of Situating is context-dependent, which can include occurrences whereby an officer chooses to override external instruction in favour of internally motivated decisions²¹⁶. This dynamic highlights the ongoing tension that officers face when navigating their individual judgements and professional motivations against the broader systemic frameworks that often determine their actions²¹⁷. It speaks to the emotional and cognitive labour that may be involved in navigating between autonomy and an officer's fundamental sense of purpose, external conformity to organisational demands, and how they view the current landscape of policing²¹⁸.

Within the strategy coding family, Situating involves the proactive strategies that officers use to align their individual actions resulting from TCN with the external context. This often includes a sense of justifying their actions, framing TCN-driven decisions with procedural, organisational, or legal mandates that align with professional priorities and public expectations²¹⁹. As a situation-led process, officers engage in an assessment to align their TCN with the situational or environmental landscape. Within situations where officers feel a tension between external requirements and pressures and their own internal motivations, judgements, or perceptions,

²¹⁶"Are we creating people who think for themselves, or are we creating people who are task-driven and task-oriented?" (Phase 1 Interviews > P02F08 Transcribed, p. 5)

²¹⁷"An over-reliance on your gut instinct can become personal ... it can become a badge of honour. And this is why, historically, there have been miscarriages of justice, because they've gone for this copper's instinct and they're probably right, they're up to something because everyone's guilty of something, but they've got the wrong person and by doing so, they've put the public at greater risk." (Phase 1 Interviews > P07F08 Transcribed, p. 3)

²¹⁸"The whole face of policing has changed over the years, whether good or bad is another argument. But we used to have a local area office, and you'd have a couple of bobbies on a certain area, and they would know that area inside out. They would know if a couple of locals were suddenly busy in crime, and they'd know if something didn't look quite right on their beat because they could feel it in the instinct, etcetera. You know, the vibe of the estate, for example. Now we've lost all that because we don't have that capability anymore, and certainly the officers that are coming through on section, or on the Frontline if you're on a different time, they're very young in service, so they don't get the time, and we haven't got any of the experienced staff left to bring them along." (Phase 1 Interviews > P11F17 Transcribed, p. 3 - 4)

²¹⁹"What prevents me from doing it [acting on TCN] now as opposed to 20 years ago is law. That is my biggest barrier because 20 years ago I could walk into [location redacted], 20 youths, stop search, and probably recover five or six knives. Probably recover loads of drugs. Now because of law, I can't stop search. I have to have full reason, I have to have this, I have to have grounds, and that to me is a barrier 'cause I can look at them and go, 'they're wrong'uns'." (Phase 2 Interviews > 2P05F35 Transcribed, p. 5 - 6)

officers may adapt their communication, particularly with those to whom they are organisationally answerable. This can be explained as processes concerned with 'Adapting to Situational Demands' and 'Justification of Actions'²²⁰. The former reflects the nature of Situating as context-dependent and references an officer's ongoing adaptation of responses based on the immediate situation. Whilst an officer may assume a broader stance on hierarchies between their internal beliefs and external pressures, the process is typically described as fluctuating and adapts according to other influential factors, e.g. length of service, confidence in belief, anticipated risk, views of leadership and directives²²¹²²², etc. Resultantly, officers accept a 'justification of actions', preparing to frame their decisions to align their TCN with procedural or organisational mandates, pre-empting criticism and preparing to justify their decision-making²²³. This process is navigated dependent on – among other things – the team ethos, including perceived supervisory support (such as a Sergeant

²²⁰"One negative, I would say, about TCN is that if people rely far too much, it can unfortunately push people down to blindsided decision-making, 'nah, nah, they're guilty', well how do you know, 'it's just gonna be them'. Whereas you need to have that almost instinctive reaction, you have that flinch, and you need it and sometimes you have to react quickly, but other times, you still need to go through the NDM, right I'm not happy with this one; where's the information come from, what are my Powers, what are my options, what am I going to do? Because then that means yeah, you've got it and you're not just accepting it, but you're rationalising your decision-making. And the danger is that if people just go down and just go down with their gut instinct and go with that, they can become tunnel-visioned and miss the wider picture." (Phase 1 Interviews > P07F08 Transcribed, p. 3)

²²¹"EBP works and the intuition and TCN works ... but you have to have some strategic leadership into what you're going to target and when, because we are, at the frontline, a very small cog in a very big wheel, and you need some strategic leadership to say, I want you over the next two weeks to target this; or equally, I want you over the next two weeks, to not target this, because there's other stuff going on. And that's where I think it falls down. So I don't think it falls down at response level, at practitioner level, I think it falls down at strategic leadership level. That's really bad, isn't it? I'm sort of saying that we could do things really, really well, but we're being failed by our leaders, but we are, and that's me being honest." (Phase 1 Interviews > P01F11 Transcribed, p. 5)

²²²"There is also a fear, from certain levels of management whereby if you have too many freakishly good copper's noses, you will then have a lot of detected crime, a lot of detected road traffic issues, a lot of detected road safety issues, that they are then obliged to do something about, okay. So, and I'm not saying there are any levels of dumbing down - I've never experienced it - but I'm not going to sit here and say that it doesn't happen." (Phase 1 Interviews > P03F11 Transcribed, p. 3)

²²³"[If] I'm going after that car because it's caught my attention in that car, for me, I would still do that, and I would argue with any boss that kicks off about me doing that, because actually, that's why you've put me there..." (Phase 1 Interviews > P04F11 Transcribed, p. 4)

who is more accepting of discretionary execution of powers), prior responses from superiors and colleagues, and personal conviction.

Relevant to the GTM framework, Situating involves both BSPs and BPSPs. As a BSP, Situating involves 'Reconciling Organisational, Professional, and Societal Legitimacy', where officers align their actions with the expectations of relevant external stakeholders²²⁴.

Psychologically, as a BPSP, Situating reflects a 'Balancing of Internal Judgement and External Approval or Validation'. This process requires officers to reconcile their personal judgements resultant of TCN with systematic and organisational demands²²⁵.

7.3 Negotiating

Negotiating, as a subcategory tightly embedded within Navigating, captures the root process of consideration that underlies tactical decision-making and action-taking that officers engage in when balancing competing priorities or expectations as they relate to powers, procedures, and situational demands²²⁶. It represents the process through which practical and operational dimensions of Navigating are formed. Negotiating – as with other subcategories – is a highly individualised process. In the context of TCN, it presents as a deeply psychological process capturing the internal deliberations officers undergo as they navigate between their sense of

²²⁴"There's a culture of witch-finding, isn't there. There's a culture of witch-finding where it's classed as reflective practice, but it's not. If you read the Daily Mail, it's always this oh this man's been sacked, this man's been sacked, this woman's bee-, and it's like, come on, you know, and don't get me wrong, we've got some wrong'uns, but some of them are genuine mistakes, or genuine oversights where people work under pressure, but we've got this environment where someone has to be to blame, and somebody has to have their head on a spike, and it's a really toxic environment, I think." (Phase 1 Interviews > P07F11 Transcribed, p. 4)

²²⁵"The demands are too much, the training's not enough – the development of them [officers], you know – they land on their area, they're just dropped into it, almost set up to fail, and it's a real concern, really. And it falls to people like me to try and risk assess things as best we can. I met one fella, sort of, explained it to me as we're having tennis balls thrown at us constantly, and in amongst it you have to catch the grenade, and that's where we're at, you know, and we do alright because we've got, you know, people like me are viewed as a bit of a pain in the arse, really, because they'll tolerate us because we're relatively effective because we've got a lot of experience and we have quite good judgement in terms of spotting the ones that could be problematic for an individual or an organisation, or whatever. We-, but that comes down to that, sort of, instinct, really, that actually this is a problematic one and all the assessments in the world and all the plans in the world don't really cater for that." (Phase 1 Interviews > P07F11 Transcribed, p. 4)

²²⁶"I always think, can I go home at the end of my shift, and will I be worrying, will I be anxious thinking the wheel's going to come off, something's going to happen, and if I-, so what I do is, I work to those standards." (Phase 1 Interviews > P08F08 Transcribed, p. 1)

professional duty, their personal motivations, and the oftentimes conflicting ideas of what the duty and purpose of an officer are. This may present as what an officer feels they ought to do, versus what they have been instructed to do²²⁷. In this sense, Negotiating is not limited to resolving practical tensions resulting in recordable actions but extends to involve significant introspective consideration of values, identities, and role expectations within the complex framework of modern policing.

Marked by profound reflection, Negotiating falls into the process coding family as 'Reconciling Personal Values and Motivations with Organisational Expectations', 'Evaluating Internalised Purposes of Policing', and 'Assessing Notions of Duty'. The former, 'Reconciling', reflects how officers weigh their internal sense of what is "right" against procedural and organisational norms and requirements. This might include balancing internalised imperatives to act swiftly in protection of the public with the bureaucratic or systematic constraints of organisational directives, policy, and protocol²²⁸. Regarding 'Evaluating', officers are said to engage in an ongoing dialogue with themselves about what they should achieve as an officer and about the purpose of policing²²⁹. This spans the concepts of enforcement, community service, crime prevention, or maintaining public trust and legitimacy. These considerations inform and come

²²⁷"...you have to rationalise your decisions because there are people out there who abuse their police powers unfortunately, so you know, it has to be evidence-based decision-making, but I do think it [EBP and TCN] is at odds to some extent. It wouldn't stop me, by the way, if I genuinely thought somebody was-, had something on them that they shouldn't have, you know, I would rather take the risk of the search being questioned than not doing it at all, if that makes sense." (Phase 1 Interviews > P06F08 Transcribed, p. 3)

²²⁸"Personally, I stick to task. I have, as supervisor with a lot of the new officers, you set them a task, you send them away with a missing from home, or an interview, and they'll hear something on the radio that's basically more interesting - there's a fight on the street, or something - and they'll want to go to that, and they'll basically self-deploy to it, and it's one of my pet hates. So, I'll bring them back, and be like, you're not going to that, you've already been tasked. And it's one of these things where, we know kind of what the demand in the district is, we know what we've got to cover, they have absolutely no idea, so it's one of these things. If I don't do as I'm told, and I'm not here and something happens, then I am accountable. If I stay here on task, like I've been instructed, do you know what I mean, then I'm absolutely free from any criticism. And, as much as I'd like to apply common sense on the job, it's one of those things - I don't necessarily know the bigger picture, I've been tasked to do that, and that is my job. So, it's quite black and white for me that I'd stay [on task]." (Phase 1 Interviews > P03F08 Transcribed, p. 5)

²²⁹"... 'this is where you should be because this is where our public expect us to be', and 'this is where, you know, crime's happening, anti-social behaviour's happening', etcetera. 'This is a really good area in which you should be in based on the evidence we have'. But policing is a flexible thing, it can never be solely dictated to by that..." (Phase 1 Interviews > P02F08 Transcribed, p. 5)

to determine officers' actions, both situationally and throughout their career, and shape their broader professional identity. As a process of 'Assessing', Negotiating involves internal questioning to reach conclusions regarding how much of an officer's decisions and subsequent actions align with their intrinsic motivations and values (e.g. a desire to protect the public), versus extrinsic pressures or expectations (e.g. meeting performance targets, adhering to commands of authority, prioritising organisational demands)²³⁰.

Within the dimension coding family, Negotiating can present on a continuum between 'Role Alignment' and 'Role Dissonance'. Alignment occurs when an officer's personal values, motivations, and perceptions of purpose and duty converge with the expectations and requirements of their professional role. Achieving this alignment fosters a sense of clarity in decision-making and of shared understanding amongst colleagues and within the wider organisation. Conversely, dissonance may emerge when an officer experiences a misalignment between their motivations and purpose as a police officer and the organisational or societal demands and expectations placed upon them. This often leads to tensions and internalised conflicts, hesitations, and dissatisfaction with their role²³¹. This dimensional process underscores the emotional and cognitive labour involved in navigating a profession that simultaneously demands adherence to organisational priorities and requirements while theoretically valuing and calling for a certain level of professional judgement, discretion, and situational empathy²³².

Strategically, Negotiating is both reflective and adaptive. It highlights mechanisms that officers utilise to balance competing obligations, demands, and expectations placed upon them internally and externally. Within this coding family, the theme of 'Aligning Professional Purpose' is prevalent. Officers may engage in an iterative process of reframing and redefining

²³⁰"Core to that decision-making model is our values and ethics [and] are at the centre of that; now, if you're talking about values and ethics, that's all sort of intrinsic within you, pretty much. It tells us the way we should behave. They are-, they should be kind of like your core values. Well, core values are pretty much intuitive because I think that's what we're talking about here ... this feels like for me the right thing to do because of this...now all that's been based on...none of that is kind of like factual. You've got information and intelligence as part of that model and we deal with that, but you know, when it comes to decision-making, what the actual model is also saying is...you've got to make some decisions on our values and ethics and therefore ... what might be the right thing to do ... is that TCN or intuition or gut feeling or values and ethics..." (Phase 1 Interviews > P02F08 Transcribed, p. 3)

²³¹"...the media is absolutely horrendous for policing; the fact that people with absolutely no experience of frontline policing can get involved and criticise operational decisions is just absolutely appalling." (Phase 1 Interviews > P03F08 Transcribed, p. 4)

²³²"[If I see something] I can't let that go because it's going to be high-harm, or it's going to be an Article 2 issue, or whatever, then I can justify with the NDM going out of my space." (Phase 1 Interviews > P03F11 Transcribed, p. 4)

their understanding of their professional role to align their internal values and motivations with external expectations (i.e. viewing problem-oriented policing as a form of community care)²³³. Similarly, officers speak of a process that might be categorised as ‘Prioritising Intrinsic Motivations’, where they may consciously focus on aspects of the job that resonate and align with their core motivations and take action accordingly, e.g. moving laterally into certain specialisms. Practically, officers may engage in behaviours such as ‘Seeking Colleague Validation’ in attempts to reconcile internal conflicts with external demands and to refine their understanding of their professional purpose.

Negotiating also presents as a BSP and BPSP within the GTM framework. As a social process, Negotiating reflects ‘Social Constructions of Professional Identity’. As officers navigate their position within organisational culture and demand, public expectation, and peer influence, this process shapes and reshapes an officer’s understanding of what it means to “do the job”, and to do so effectively²³⁴. As a psychological process, Negotiating engages in a process of ‘Resolving Internalised Cognitive and Emotional Tension’. This broadly reflects the reconciliation an officer may have to achieve to resolve discrepancies between their professional and personal motivations, and external pressures, striving to maintain a coherent

²³³“What we need to probably get better at sometimes is when we articulate that [use of TCN]. So how, say, for example, that looked like a suspect vehicle or that just looked like a vulnerable person - that all links back into kind of like our overall strategic objectives to protect vulnerable people, to prevent crime and ASB, to actually tackle offenders where possible.” (Phase 1 Interviews > P02F08 Transcribed, p. 6)

²³⁴“In terms of other roles in more serious crime, you know, arresting someone’s quite-, you know, you’re taking away their liberties. You can’t just policy a decision on, I’m arresting them on my instinct, you have to have some evidence to substantiate that. So, I think you think more about the decisions you’re going to make [in investigative positions] because you have more time compared to reactive policing.” (Phase 1 Interviews > P05F17 Transcribed, p. 1)

sense of self within the complexities of policing and the wider organisations to which they belong²³⁵.

In summary, Negotiating – which centres around internalised deliberations on operationalising TCN – has three main concerns: navigating powers, procedures, and policy-driven mandates; navigating organisational dynamics and demands; and navigating policing priorities; all of which are set against an officer's individual sense of duty, purpose, and motivation for 'being an officer'. These concerns contribute to the practical and ongoing value-making associated with TCN and act to refine an officer's sense of professional alignment and purpose. This element of the process transforms TCN from a tool for perceiving and responding to external stimuli, to a reflexive mechanism that helps officers to integrate and position their personal and professional selves. By providing the basis on which to navigate the psychological dimension of duty, motivation, and purpose, including priority, officers engage with TCN as both a response system and a reflection of their evolving sense of 'being an officer'.

7.4 Example Data Incident

"If I can justify, you know what, yes I left my scene, and yes, I potentially exposed the scene to contamination, however my assessment was that I saw someone getting beaten up and my duty was to them first-, but there's always other options, as well, you know. You've got your radio. You've got your-, you can be a professional witness. If you're out and about in your daily, out with the kids or something, and something kicks off, you know, copper's instinct is to react, and my duty is to protect the public, and also my duty is to protect the kids. Which do I do first? Which one? How can I keep them safe? You've got to assess it all and look at options. But there's other things like verbal communication, you shout, you do this, you can make a scene, you can call it in, you can-, there's tonnes you can do, but for me, you can't have that scenario and get almost academic results, because there's no scenario that's ever unique, or rather, they're all unique. So me standing on a scene one day and seeing someone

²³⁵"An example would be like missing people. You deal with the missing child. You've got a duty of care over the child, but you also, there's a very fine line between using force to take the child back to their parents. If I was a parent and my child was missing, I would expect someone the police officer to grab them and bring them back. But there's that- that's a policy thing. That's not a legal thing. We have a duty of care. We can legally use the minimum, but it's just- it's becoming more and more the public perception sort of-, well, the way that corporate-wise we're pandering to the- not the public, but we do pander into sort of this softer approach. I think you'll find there's probably a lot of older, more experienced police officers who were just incredible at stopping someone, getting a positive result. But then when they get audited someone would go, 'why did you stop them' and then they're not experts at justifying their actions, but I think that's becoming more and more apparent ... now they're having to like list and sort of justify and I think that's probably the only clash we'll ever have." (Phase 1 Interviews > P11F08 Transcribed, p. 5)

go off and me thinking, 'hmm, there's something dodgy there, I might think, do you know what, I'm going to follow them because I've just seen something, is that a knife or something in the distance', or 'they seemed dodgy and am I using my unconscious bias here, they're not actually doing anything, they're looking at bit shady but let's face it, police officers aren't everyone's favourite people so if it had been me, I'd have turned away, really'. So, each scenario is different, but you have to go through the NDM. The gut, your TCN, is like a little warning signal. That's how I see it, it's like 'hmm, something's not right here', and then you've got to put your logical head on, like, 'right what information am I seeing, what's my logical assessment of that information, so that guy reached into his pocket, hmmm, my assessment is that might be a weapon he's coming out with, he's in a crowded place, this could be quite nasty, what are my Powers, but I can't search him under Section 1, really, but I suppose I could, and by doing that, do I cause a scene and potentially escalate the situation, can I deal with it another way by following him for surveillance, do I then need the Power of RIPA, no I don't, I can follow him to a safe place and then stop it'. So, do you see how it's that copper's instinct that tells me something's not right, there's a rabbit off, but I've used logic to talk through and understand what Powers and policies I've got and what my options are to come out with a better solution." (Phase 1 Interviews > P07F08 Transcribed, p. 4 - 5)

7.5 Discussion

The purpose of this thesis remains to establish a grounded theory of The Copper's Nose, hypothesising what it may be (its constitution). However, in doing so, participating officers shared their accounts of TCN's value and impact in their practice (its application). As such, a contributing element of the emergent theory became navigating: how officers 'rate' their own TCN compared to others (Positioning), how officers come to value TCN compared to organisational directives or standards of professional practice (Situating), and how they conduct dynamic assessments to reconcile or align between the two (Negotiating). This speaks to the very nature of being a police officer, their sense of 'duty', and how they believe they coexist as a professional individual and as a representative of a broader service. In the coming section, the emergent themes of Situating, Positioning, and Negotiating will be discussed in the broader context of contemporary policing. The aim of this subchapter is to highlight the value, influences, and impact of TCN, as a final offering from which future research may be developed. To that end, this section will not demonstrate an exhaustive cultural analysis but aims to frame TCN within the wider context of policing to facilitate a more comprehensive understanding of the impact of the phenomenon.

7.5.1 Comparative Self-Assessments

Within the data, officers were keen to refer (unprompted) to the ability of fellow officers. For the most part, officers spoke of colleagues who were 'known' for their TCN and the success that it afforded. Conversely, officers also spoke extensively about deviations from the expected trend: that experience was not mutually inclusive with a 'good' or even 'better' TCN,

and that individual variations across personality traits, mindset and attitude, and other indescribable factors were seen to be influential. Sentiments such as these are indicative of officers making and remaking sense of their position in comparison to colleagues, and, at times, how confident they felt in their own abilities, which influenced their confidence in the use of TCN. The way in which professionals evaluate their abilities relative to colleagues is a complex process that has received much attention within psychology and behavioural sciences. These self-assessments significantly affect behaviour, skills usage, professional development, as well as team cohesion and resilience.

Arguably, the most prominent theory in our understanding of comparative self-assessments is that of Social Comparison Theory (Festinger, 1954). Festinger posited that individuals evaluate their abilities by comparing themselves directly to relevant others and position themselves according to shared reference points. This occurs in two forms: upward comparison and downward comparison. The former relies on comparisons with colleagues who are believed to be more skilled, and the latter, comparison with those evaluated as less skilled. This can lead to psychological amendments in one's self-evaluation, where upward comparison may motivate improvement (desire to learn); however, it may result in feelings of inadequacy and lower self-esteem in those who feel insecure in their abilities (Lockwood & Kunda, 1997). Conversely, downward comparison can boost feelings of self-esteem, but is known to foster complacency (Wills, 1981). These dynamic processes of inter-colleague comparison affect skill reinforcement, including – relevant to this thesis – the extent to which an officer relies upon their TCN. Those overestimating their abilities may rely upon TCN without self-evaluating or seeking improvement (see: Dunning et al., 2004), whereas those perceiving themselves as less competent than others may demonstrate a reluctance to apply particular skills owing to a fear of failure (Bandura, 1977). The latter further emphasises the importance of active mentorship, as constructive feedback from engaged colleagues and mentors assists in the accurate assessment of abilities and prompts a desire to refine skillsets (London, 2003). How an officer comes to assess the effectiveness of TCN is often based on cultural norms within organisations. Collectivist cultures place emphasis on group cohesion and harmonious practice, which may result in individuals underutilising or minimising their application of TCN in favour of team unity (see: Triandis, 1995). Individualist cultures, however, create environments whereby officers are more likely to highlight and compare their personal achievements and abilities, leading to competitive dynamics that place additional value on specific skills (see: Hofstede, 2001). Recognising the cultural environment embedded within individual teams, across specialisms, and within each force, becomes important in understanding applications of TCN. The established 'norms' within each facet of an individual's environment will also impact the availability and type of feedback they may receive following demonstrations or applications of TCN. Where TCN is accounted for within the professional environment, formal feedback may be standardised, allowing for structured feedback that can confirm or challenge self-perceptions and legitimacies of use (see: Kluger &

DeNisi, 1996). Where TCN is not recognised within operational parameters, officers may rely on informal feedback via colleague interaction and social dynamics, which subtly affect beliefs about abilities and reinforce or challenge which skills are prioritised and applied (see: Ashford et al., 2003). This is important for discussions concerning legitimate and authorised professional practice in policing, which will be discussed forthcoming. Within professional settings, additional phenomena occur, e.g. the Dunning-Kruger Effect. This phenomenon describes how individuals with low competence within a professional domain may often overestimate their skill levels, while those who are highly skilled may underestimate their expertise (Kruger & Dunning, 1999). This is supported in other literature on processes of self-assessment, where professionals often overrate their abilities when asked about colleague or peer comparison (Moore & Healy, 2008). These forms of inaccuracies in self-assessment result from several metacognitive phenomena, which compound to create significant effects. For example, hindsight bias – where successes are more readily attributed to skill and failures to external factors (Fischhoff, 2003); anchoring biases – where lower-skilled individuals create overly optimistic self-assessments acting as an anchor, which fails to adjust when negative feedback is provided (Tversky & Kahneman, 1974); deficits in social comparison availability – where less-skilled individuals are typically embedded within environments with colleagues of similar competence, resulting in a lack of opportunity to compare their skill level with more competent colleagues, reinforcing inaccurate self-evaluations (Festinger, 1954); the high frequency of imposter syndrome in highly skilled individuals – whereby competent individuals often underestimate their abilities due to greater familiarity with the professional domain and its challenges, resulting in the dismissal of their own achievements and an over-inflation of others' competence (Clance & Imes, 1978); and confirmation bias – where individuals actively seek out information that confirms their self-belief and neglect information that could prompt revision (Nickerson, 1998).

The effects of self-assessment processes and comparison biases provide critical insights into the application of TCN, particularly in how an officer positions themselves alongside colleagues. This offers elucidation into the perceptual frequency and reliance upon TCN exhibited across individuals. However, comparative self-assessment reflects the internal metacognitive processes through which an officer positions themselves alongside colleagues and assesses their relative TCN capabilities. Concurrently, as evidenced from within the data, officers situate themselves within the wider organisational framework.

7.5.2 Reconciling Personal and Professional Identities

Alongside Social Comparison Theory (Festinger, 1954) discussed herein, several additional psychosocial phenomena contribute to an officer's reconciliation of their personal and professional independent identity and their identity within the broader operational structure. Professional practitioners are known to form a social identity through affiliation with an organisation's values and mandates. Social Identity Theory (Tajfel & Turner, 2004) describes

how individuals derive and adapt their identity through the establishment of group membership. In policing, this speaks to 'groups' such as individual sections²³⁶; specialisms (e.g. 'Detective'); teams or task forces (e.g. Missing Persons Unit, Violent Crime Task Force); boroughs; or those belonging to a specific regional force. As these groups form specific expectations about their roles and responsibilities, individuals will adapt and align their behaviour accordingly, influenced by both formal mandates and informal social expectations from colleagues or those in leadership positions (see: Katz & Kahn, 2015). Where individuals misalign, cognitive dissonance can arise, and professionals will feel compelled to review their behaviours to reduce dissonance or rationalise deviations to preserve their identity within the group. This occurs most discernibly in organisations subject to frequent shifts in priorities, such as policing (Festinger, 1962). As individuals adapt their sense of identity within the groups to which they belong, the process is further facilitated by updating their situational knowledge to adopt the 'lens' of the group. These dynamic processes occur through social learning, where colleagues and mentors may provide informal learning (Allen et al., 2004; Bandura, 1977), contributing to a sense of organisational culture. The nature of professional group culture has a profound reaffirming effect on how individuals situate themselves, developing a 'collective cognition' that further supports shared understandings of expected standards and behaviours (Hofstede, 2001; Weick & Roberts, 1993). Standards of expected behaviour and performance are, particularly in policing, emphasised through police practice ideals and other legislative guidelines (see: Neyroud, 2012). However, relationships with the wider organisation are also subject to psychological contracts. Rousseau (1989) outlined the impact of these contracts, which consist of unspoken expectations that exist between an employee and their employer and influence behaviour and role satisfaction. The combination of implicit sociopsychological effects, in tandem with explicit legislative mandates, creates systems of influence that impact an individual's identity, concept of professional duty, and sense of belonging within an organisation. As officers navigate between these influences, they enter into a process theorised herein as negotiating.

Within negotiating, officers combine the effects of Positioning and Situating into iterative and dynamic processes of negotiating between the self, others, the organisation, and the wider sociopolitical landscape of policing. At the heart of negotiating are conflicting demands or influences that can be affected by cognitive dissonance – summarised as the reconciliation between two contradictory cognitions or beliefs, such as that which one ought to do and that which one wants to do or believes they should do (see: Festinger, 1962). These contradictory or competing expectations are affected by moral and ethical reasoning, integrating personal desires and ethical considerations to negotiate principled decision-making. Emotional influencers such as guilt and/or pride can serve as internal feedback mechanisms to prompt

²³⁶In this context, this refers to teams that cover particular shift patterns and/or are tied to a specific geographical area. They may also be referred to as 'Reliefs', e.g. 'Relief A' will consist of a team of officers set to a specific shift pattern who police the same area as an operational group.

decision-making (Tangney et al., 2007). Officers may engage in narratives justifying their choice to act against a mandate by highlighting a potential risk born from not acting or by being reductionist towards an operational mandate that they disagree with. This speaks to the earlier discussed notions of Self-Determination Theory (Deci & Ryan, 1985), which emphasises the relationship between personal motivations and extrinsic demands and their influence on individuals' values and core identity. Competing roles (e.g. as an individual or as an officer), whilst also being a representative of a force, can create or highlight internal conflicts. How officers come to determine which takes priority is often the result of how they define themselves (see: Stryker & Burke, 2000) and contextual factors (e.g. context sensitivity) (see: Markus & Nurius, 1986).

7.5.3 Context Sensitivity

Within the framework of TCN, context sensitivity plays a significant role. Officers spoke of decisions to act in line with taskings or to act in line with their perceptual priorities, and the factors that underpinned each. As part of that narrative, and within the descriptions of TCN, officers regularly referenced risk assessments. While risk assessments form a considerable component within the Mediating function – whereby officers are said to conduct “continual risk assessments” in the evaluation of stimuli (e.g. potential threats) – they also apply these dynamic risk assessments to their decision to act. Risk appraisals in professional settings are shaped by personal values and priorities, the perceived probability of outcomes, and emotional salience (see: Slovic, 1999; Slovic et al., 2005). Commonly, individuals will prioritise avoiding losses rather than securing gains, particularly in situations of uncertainty. This manifests as decisions that lean towards “ought” rather than “want” (in the moral, ethical, or emotional sense) (see: Tversky & Kahneman, 1991). How these ‘oughts’ are recognised is derived, in most part, from cultural influences that occur within the professional setting. For example, risk tolerances vary across cultures, teams, and individuals and may be influenced by the environment being one of collectivist culture – prioritising group unity – or individual culture – prioritising individual competition (see: Hofstede, 2001). Within the fast-paced and often high-pressure situations prevalent in policing, officers may also consider their hierarchy of goals. For example, goal systems theory suggests that individuals resolve conflicts or reconcile differences in goals by considering their preferred actions in the immediacy with higher-order goals (see: Kruglanski et al., 2002). These internal hierarchies can be subject to subliminal goal priming (Bargh & Barndollar, 1996; Draine & Greenwald, 1998). This is particularly apparent across context-dependent practice, as policing may classify (see: Elis & Kruglanski, 1992; Kruglanski, 1989). Within specific contexts – which can be considered in isolation (e.g. a particular event) or across a broader but specific context (e.g. policing) – human action, which can be reduced to goal-driven mechanisms (see: Gollwitzer & Bargh, 1996), will often be assessed against likely success or failure, where these terms take shape around the context. Within professional settings, for example, ‘risk’ may be more likely to

result in failure where the risk contains both a threat to the physical self and a threat to the professional self (i.e., loss of employment).

7.5.4 Cognitive Risk-Assessments

In his works, Gigerenzer (2023) investigated the practices of executives within large corporations, examining the rate at which they relied on 'gut decisions'. He found that, of all decisions in the workplace, half of all important or critical decisions were made on this basis. However, executives expressed reluctance in 'admitting' this, fearing negative consequences (e.g. blame) and an inability to articulate their reasoning. Within the data herein, officers similarly expressed how these cognitive risk assessments against professional outcomes (e.g. being reprimanded) influenced their choice(s) to act upon TCN, or not. While the occurrence of TCN did not present as a gendered phenomenon, decisions to act on TCN were framed differently based on experience, with more experienced officers expressing more confidence in their ability to apply TCN. This specific element of the negotiating processes and the influence of experience is highlighted in other frameworks of intuition and related literature. For example, experience is known to foster pattern recognition – as has been discussed – as part of the cyclical processes of developing situational awareness, including predicting outcomes (Klein, 1998). Repeated exposure within the professional context assists in the analysis of salient risk factors, contributing to assessments of risk to the self and others (Endsley, 1995). Furthermore, as this experience contributes to professional confidence, more experienced professionals may feel stronger in their justification of deviating from organisational mandates in favour of real-world demands and priorities (Gaba et al., 2023). This is supported by changes in their risk tolerance, as repeated exposure to policing risks may cause desensitisation, altering the perceptual nature of risk itself (Hofman & Stetzer, 1998). As inexperienced officers engage in risk assessments, they are more likely to follow organisational mandates and rely on explicit instruction to guide their decision-making (see: Ericsson, 2006). As experience grows, officers are more likely to deviate from instruction, relying on their prior experience and confidence in outcomes to influence their decisions (Gaba et al., 2003). While the instinctual decisions of experienced individuals have been shown to be more effective than decisions made after long periods of consideration (see: Bechara et al., 1997; Dijksterhuis & Nordgren, 2006; Ericsson & Kintsch, 1995; Gigerenzer, 2007; Klein, 1998; Suss & Ward, 2012), experience does not mitigate against judgement errors. Experienced individuals may underestimate risks due to desensitisation (Weick & Sutcliffe, 2001), and overconfidence without reasoned justification may lead to errors (Reason, 1990). How emboldened an officer feels to make a decision based on their TCN, including that which might conflict with explicit instruction or organisational mandates, is influenced considerably by culture.

7.5.5 Navigating the Policing Landscape

When asked about the applications and freedoms of use concerning TCN, officer accounts became clouded by discussions of sociopolitical, cultural, and wider systemic frameworks that influence their practice. Understanding the sociocultural components of policing – including those related to the identity of the self (both as a professional and as an individual) – is a significant undertaking. One must consider many components, e.g. *being an officer* and the sociopolitical and psychological dynamics that shape their sense of self, the notion of 'duty', interpretations of legitimacy, application of practice, and the vast interplay between internal and external influences that underpin policing. Doing so could warrant a thesis of its own. Resultantly, only a brief summary of the policing landscape and factors that influence officers' perceptual freedoms of use²³⁷ will be posited herein.

From the establishment of the Peelian principles to contemporary debates concerning the most appropriate nomenclature, e.g. 'Force', 'Service', 'Constabulary', or 'Organisation', the function of policing can be summarised in terms of both its static components (e.g. protecting the public) and its evolved components (e.g. providing a mental health response). The core policing function, and its ability to perform its central tenets, are compounded by rapidly changing human landscapes underpinned, in some regard, by the evolution of technology and globalisation. As Neyroud (2017, p. 265) commented, "Upheaval in the contemporary policing landscape has been rapid and widespread". For Chan (1997), policing culture can now be more comprehensively characterised by its dynamic components, where static components are becoming fewer or less pervasive. The advent of technology introduces new forms of crime, bringing additional challenges for addressing them, as well as new directions for policing. Increased accessibility to these technologies similarly adds new opportunities for accountability measures to be adopted within policing. The availability of body-worn video offers transparent forms of 'evidence' concerning policing practice, and the use of 'film and publish' social media offers widespread and instant visibility of policing practices, heightening transparency and public engagement. Globalisation of the international media prompts cross-state comparison and scrutiny of officer decisions, and increased workload adds to concerns surrounding officer wellbeing. However, some components of policing culture remain unchanged. The traditional traits of professional isolation – owing to the unique challenges of policing, e.g. the near-constant risk of danger – leading officers to view themselves as separate from society, remain prominent (Loftus, 2010; Skolnick, 2011). Dual stressors drawn from public interaction and internal organisational dynamics continue to shape officers' cultural traits, including hyper-vigilance and suspicion (Paoline, 2003). As our collective understanding of policing culture has improved, few have offered a more comprehensive magnum opus on the subject than Reiner's *The Politics of the Police* (2010). Reiner provided an important analysis of the sociopolitical dynamics that shape policing and its culture, extending to political

²³⁷Echoing the principal concerns emerging from the data.

ideologies, economic conditions, and social justice movements. One dynamic that Reiner highlighted was that of specialist function, stating:

“Police culture – like any other culture – is not monolithic. There are particular variants – subcultures that can be discerned within broader police culture, generated by distinct experiences associated with specific structural positions (ranks, specialisms, areas, etc.), or by special orientations officers bring with them from their past biographies and histories” (Reiner, 2010, p. 116).

These divisions and specialisms significantly influence the physical, cognitive, and sociopolitical demands placed upon officers. In practice, this can shape an officer’s daily duties, operational requirements, and the organisational culture (including ‘expectations’) that they experience. At the extreme, these variations across specialisms can create distinct professional ecosystems with few shared characteristics other than their overarching commitment to public protection and upholding the rule of law. This structural diversity may contribute to the earlier discussed self-selection bias regarding who may be more aligned with specific roles, and indeed who may develop or succeed within these roles, thus altering the nature of applying TCN. Data contained herein indicates that whilst officers do not perceive significant differences in how they develop TCN, they do perceive differences in how they (can) apply TCN within their roles. Officers with experience in proactive roles emphasised the importance of reactive decision-making in dynamic and high-pressure environments, whereas investigative officers described TCN as a prompt for deeper, more systematic review, encompassing deliberative analysis. These forms of negotiation, underpinned by expectations and priorities applicable to specific roles, reflect the broader processes of professional identity and decision-making subject to competing demands. Recognising these role-based distinctions underscores how organisational expectations and specialisms do not alter TCN’s development per se, but the way in which TCN impacts practice and outcomes may be overlooked or misattributed if variations in application are not accounted for.

8. Implications

This chapter concludes the thesis. Drawing upon the findings discussed, it provides an overview of the theory proposed, and sets out the implications and possible directions for future research and practice.

The implications discussed are divided into three main areas: focusing on officers at the individual level (Establishing the Baseline); the relational skillset among officers (Utilising 'Dave'); and optimising the wider policing environment (Engineering the Environment).

8.1 Theoretical Recap

The focus of this thesis has been on establishing a theoretical framework for TCN using Grounded Theory. Grounded Theory-based theses typically do not feature practical or research-focused implications, but given the many opportunities emerging from the framework presented here, I felt a brief foray into this area would be a fitting conclusion. Within the scope of this dissertation, it is impossible to do justice to the plethora of implications, and those selected are intended to be indicative and high-level. Before turning to these implications and future avenues, a theoretical recap is provided.

The Copper's Nose (TCN) has been theorised herein as a context-dependent mediator that operates between the officer and the environment. Through cyclical 'Mediating' processes consisting of perceiving, attending, interpreting, and assessing, TCN functions in the space between an officer's internalised components (e.g. perception, sensing, cognitive assessments) and external, context-relevant stimuli (e.g. a person exhibiting behaviour that indicates criminal intent). The development of TCN relies upon effective 'Updating', broadly compartmentalised into experiencing, learning, engaging, and trusting. These processes may be affected by an officer's personality traits (e.g. motivation, curiosity), their biophysiological predispositions (perceptual ability, interoceptive awareness), and their exposures both prior to and within policing (i.e. early exposure to criminality). The environments in which officers are subsequently embedded may facilitate the learning and development of TCN (e.g. the influence of an active mentor) or hinder its formation (e.g. discouraging proactivity). Officers negotiate the possible use of TCN by 'Navigating' the policing landscape. For example, by measuring the strength and reliability of their 'nose' alongside that of colleagues; reconciling their motivations for 'doing the job' and notions of 'duty' with expectations; and making determinations on the appropriateness of application based on internal factors (organisational mandates) and external pressures (public perception). These core concepts combined elucidate how TCN presents, the factors contributing to its development, and its applications within policing.

8.2 Establishing a TCN Baseline

A poignant feature emerging from the data was the variation in officers' TCN abilities. As discussed, this variance can be explained by a multitude of causal and mechanistic factors, including – but not necessarily limited to – biological predisposition, physiological capabilities (e.g. visual perception), susceptibility to cognitive biases (e.g. tunnel vision), personality traits (e.g. curiosity), mindset (e.g. motivation), and learning frameworks. Importantly, these individual components can be measured. By doing so, forces may be better able to predict where an officer may excel, and conversely, where an officer may struggle. As we move towards precision policing (Lin & Rejniak, 2017), understanding the underlying factors that discriminate between officers – and whether these factors condition them to more readily adapt to specific 'types' of policing²³⁸ – may produce a multitude of benefits, including improvements in retention and performance. Recommendations pertaining to this are discussed below.

8.2.1 Measuring Engagement and Motivation

Levels of perceived engagement and motivation – often referred to as 'professional curiosity' – are suggested to influence the development and use of TCN in officers. It is widely recognised that levels of engagement, motivation, and curiosity play key roles in honing the observational and investigative skills central to effective policing. To better understand how individual characteristics shape an officer's ability to develop TCN and other relevant skill sets, employing a testing matrix is essential. Tools such as the Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2006) and the Student Engagement Instrument (SEI) (Appleton et al., 2008) can measure professional curiosity and learning-related engagement. Applying these tools, particularly during recruitment and early development, could help identify how engagement and motivation vary across the workforce. Analysing these traits by role or specialism may uncover developmental subcultures that influence the sharpening of TCN. Targeted interventions could further enhance this skill where needed, improving motivation across the workplace. Embedding such measures into professional reviews might also help identify when officers experience decreases in engagement or motivation, enabling timely support and potentially improving retention. At recruitment, pairing less motivated or engaged practitioners with experienced officers who demonstrate strong TCN could foster the transfer of these critical skills and improve engagement across policing contexts.

8.2.2 Measuring Biophysiological State

The biophysiological disposition of an officer is considered a key factor in understanding who may demonstrate resilience to high-stress environments and who may be more vulnerable to the pressures experienced within the policing context. As previously discussed in 'Mediating', understanding an officers' response to acute stress and the impact on specific physiological

²³⁸e.g. proactive roles, response roles, investigative roles.

components, e.g. HRV and vagal tone, is essential for identifying the physiological markers that may predict individual response to environmental stimuli. Baseline observation skills and perceptual abilities – which vary across officers, as well as across the general population – may have a direct influence on the development of TCN and across other measures of effectiveness. This reality has been observed across other professions where practitioners are identified as 'top performers' or 'less skilled performers' based on comparable skillsets relevant to TCN (perceptual accuracy, detection of cues, rapid response and decision-making). For example, a comparative study on athletes demonstrated that unique physiological and cognitive traits within individuals influenced their recorded success and aptitude for a particular sport and were further enhanced by specialised training. Basketball players exhibited superior selective attention; volleyball players demonstrated better perceptual speed, and water-polo players displayed enhanced visual reaction time and decision-making accuracy (Kioumourtzoglou et al., 1998). Drawing upon the physiological and cognitive measures utilised in other professional fields offers a valuable opportunity to identify officers who may be predisposed to develop specific skills more rapidly and/or who may excel in specific areas of policing, e.g. proactivity. Testing of this type could enhance the micro-level understanding of the heterogeneity among officers and yield insights beneficial in the policing contexts e.g. officers with an aptitude for specific roles, enhanced capacity to perform under pressure, and other critical components.

8.3 Utilising 'Dave'

The inspiration for this thesis was a comment made by a junior officer regarding their colleague – Dave – and his 'copper's nose'. Throughout the conduct of the research, it became clear that within policing *everyone knows a 'Dave'*. These officers' reputations are based solely on their TCN abilities, as identified by colleagues. The discussion that surrounded these officers most often focused on: how their abilities inspire other colleagues, the respect that they garner in-force, and the learning opportunities that working alongside them affords in the development of TCN. These officers are invaluable for their knowledge and experience of the full scope of the policing context, that, if utilised, could considerably benefit officer development.

8.3.1 Transferring Craft Knowledge

The concept of 'experience' was regarded by participating officers as a critical mechanism in the development of officers and the presentation of TCN, with abilities honed and refined through exposure to a multitude of policing-relevant situations and environments. Similarly, the concept of 'craft' is considered vital in professions requiring the application of practical knowledge for success. However, officers expressed concerns, within this research, about the erosion of 'tacit' and 'expert' policing knowledge, attributed to the recruitment of 'younger' officers and the high attrition rates affecting experienced officers. As a result, this is seen to have caused the loss of critical knowledge and an increasingly inexperienced workforce. This

could pose significant challenges for the future of the profession if not addressed. It is recommended that forces prioritise mechanisms to harness the expertise of experienced officers to support the development of newer officers in service. Suggestions of such measures are not new, and scholars have increasingly advocated for similar interventions. Ratcliffe et al. (2019) highlighted that technological advancements in predictive policing often conflict with an officer's sense of craft, emphasising that the deployment of new policing techniques ought to be preceded by consultation with experienced officers. Fleming and Rhodes (2017) argue that professional standards within policing often focus on measurable components, neglecting the importance of 'craft'. These disparities can disadvantage practitioners in highly specialised fields where these skills are essential but difficult to quantify and qualify (Koper, Lum, Willis, 2017). Furthermore, Lum (2009) warned that trends towards standardisation may limit officers – particularly the inexperienced – from developing the necessary situational judgement to respond to unpredictable and complex scenarios. This research echoes recommendations for forces to prioritise the transfer of craft knowledge to address both officer concerns and broader critiques (see also: Gallagher, 2018). To facilitate this, Willis and Toronjo's (2023) 'Craft Learning Model' provides a framework through which craft knowledge could be harnessed and transferred between experienced and inexperienced officers. The adoption of such models is recommended to prevent the loss of invaluable experiential knowledge and expertise.

Additionally, although retired officers were not included in this research, they may possess useful experiential knowledge that could support newer officers in service. Future research may wish to include a comparative study with former officers to explore whether TCN presented differently during their service, and how they perceive their skillsets to have been affected when exposure to the policing environment stopped. Such findings could inform strategies for addressing the potential impact of long-term leave and/or secondments on the development and maintenance of an officer's skillset and performance.

Another key recommendation is the enhancement of mentorship programmes, a concept supported by the data. Officers spoke at length about the influence of mentorship in their formative policing years, with both positive and negative experiences reported. The presence of an engaged and experienced mentor aligns with learning theories – previously discussed – and the development of TCN, self-trust, and broader professional development. It is recommended that forces review and revise current mentorship programmes as necessary, ensuring that experienced officers are prioritised to act as mentors. To support uptake, mentors should be formally recognised for their efforts and rewarded for their commitment to developing junior colleagues. This approach would facilitate the transfer of craft knowledge, insulate against knowledge loss, and strengthen relational dynamics across the workforce.

8.3.2 Recognising Specialisms (Experts)

Also emergent from the data was the importance of recognising specialisms. Officers spoke at length about the significance of contextual experience and how this contributes to the perceptual development of TCN. As mentorship was also deemed influential in the development of officers and related skillsets, it may be beneficial for forces to create networks of specialists focused on specific ‘types’ of criminality that could transcend force jurisdictions. For example, establishing a ‘Rural Crime Specialist’ for each force who could coordinate with other forces to share best practices and knowledge. This may be particularly effective for forces with a greater proportion of inexperienced officers, who may otherwise be unable to rely on an experienced officer to guide them in the detection and investigation of specific crimes. Similarly, building networks of support around specialisms may enhance the career trajectories of officers and the development of relevant skillsets. Echoing narratives from within the data, the concept of “horses for courses” – recognising that officers may be better attuned to specific roles – and providing them with the framework to develop according to their unique strengths, will allow their skillsets to flourish.

8.4 Engineering the Environment

Officers often work under cognitive and psychophysiological strain and pressure, which can distort their perceptions, impair decision-making and reaction times, and diminish their motivation. Modifying the environments in which officers work can nurture their development and offer long-term benefits. By embedding proactivity into training programmes, facilitating knowledge-sharing environments, and fostering collaboration between colleagues, forces may improve officers’ operational effectiveness, resilience, and adaptability – all of which could contribute to the development of phenomena such as TCN.

8.4.1 Protecting Officers (Physiologically and Psychologically)

Policing decisions frequently occur under conditions that expose officers to cognitive biases and psychophysiological pressures. These can produce negative biases, such as tunnel vision or forecasting errors, which are exacerbated under stress (Hough, 2010), impairing an officer’s ability to accurately perceive and process environmental cues. Stress-induced alterations in mental chronometry, such as slower reaction times, can further compromise perceptual accuracy. High-stress conditions in policing and military environments have been shown to impair working memory and decision-making, particularly in use-of-force scenarios (Taverniers et al., 2019). Concurrently, rising rates of mental ill-health due to chronic stress remain prevalent in policing (Cartwright & Rhodes, 2021; Quin, 2024), and stress, along with other pertinent mental health conditions, can significantly affect interoceptive sensitivity and vagal tone – both crucial for accurate threat detection and effective perceptual ability. While the extent of these factors’ impact on the development and presentation of TCN remains unknown, the officer narratives herein strongly suggest a significant correlation.

The utilisation of technological advances, such as wearable health technology, HRV, and other critical physiological measures, could provide valuable insights into the physiological underpinnings of TCN presentations. Forces may benefit from tracking the stress-state of officers, focusing on critical moments when chronic stress begins to manifest – of particular interest to those concerned with the effects of vagal tone and perceptual distortions under stress. Such data could enable forces to develop more targeted interventions for the long-term protection of officers' physiological capabilities. Longitudinal research applying similar biomarker testing may also yield important correlations between an officer's physiological state, cognitive ability, perceptual performance, and TCN presentations. For example, it may reveal that officers who demonstrate more resilience against stress or perceptual distortion at the biophysiological level excel in proactive or high-risk roles.

To safeguard officers against detrimental exposures within policing, forces should consider enhancing their training programmes by introducing stress-conditioning techniques to better prepare officers for the realities of the role. Similar training models have been successfully adopted in military environments, where the incorporation of operational stress control, attentional retraining, and relaxation techniques has been shown to improve stress responses and reduce the development of PTSD (Hourani et al., 2011). Relevant training models have also been effective in reducing performance-based anxiety and improving performance under stress (see: Saunders et al., 1996). Forces could introduce debiasing interventions alongside a focus on the application of logical reasoning in perceptual analysis (see: Berthet, 2021; Fasolo et al., 2024). Enhancing tactical decision-making through simulated scenarios, where officers are exposed to rapid decision-making and perceptual challenges, could further strengthen preparedness. Technological advances, such as immersive virtual reality, provide accessible opportunities for officers to experience relevant scenarios, accelerating the learning and development processes related to TCN. This approach is likely to improve decision-making under pressure by building resilience against perceptual distortions, refining instinctual responses, and enhancing operational accountability.

8.4.2 Embedding Proactivity

Within the data, one Chief Constable discussed how newer officers are mandated to complete proactive patrol activities to: improve their environmental awareness, establish a baseline, foster a sense of operational duty, and familiarise them with the proactive use of their powers. This practice was deemed particularly important for fostering a sense of engagement in proactive policing culture among younger officers. Aligning with the data was the sentiment, expressed across all ranks, that officers often police in a 'slave to the radio' approach, emphasising their reactionary nature. This may alter an officer's mindset and their ability to generate proactive responses, which, in turn, may limit their observational abilities. Similarly, it was frequently noted that officers who demonstrated the 'best' TCN were also those who showed proactivity. While no research appears to focus on the effects of proactive exposure in

policing, recent studies have demonstrated the significant positive impacts that training in proactive thinking has on job performance (see: Kirby et al., 2002). Likewise, the mandated proactive training discussed by the Chief Constable has been reported by colleagues within the same force as particularly influential in altering officers' engagement levels²³⁹. It is recommended that forces – notwithstanding the resource demand that may limit such aspirations – adopt similar approaches to mandate proactivity from the outset of an officer's career to foster trust, operational understanding, and engagement with the broader policing environment.

8.4.3 Scaffolding Adaptive Heuristics

In conversations concerning adaptive heuristics and the formation of domain-specific intuitive practice, Gigerenzer (2023) highlights the importance of shared professional-social environments to facilitate the indirect exchange of knowledge. For example, creating workspaces and social spaces that are open and promote 'communities of knowledge'. Studies have shown that co-working environments provide social benefits, including a reduction in perceived transaction costs of knowledge exchange, whilst boosting the sharing of tacit knowledge (Wijngaarden et al., 2020). Others have highlighted the positive effects of resting and dining together (Choi et al., 2020). This type of communal opportunity can often be difficult to achieve in the policing context, where a police vehicle can become an officer's office. The 'grab it when you can' break culture segments an officer's working day unpredictably, and the closure of police stations has reduced the communal facilities available to officers. The loss of spaces in which officers can rest, eat, and talk is becoming the focus of current research, where it is theorised that such changes could increase the risk of isolation and damage officer wellbeing (see: O'Reilly et al., 2024). At the heart of these spaces are opportunities for storytelling, which develop contextual knowledge and can help officers 'learn their craft' (van Hulst, 2013). It is recommended that forces consider what provisions exist to facilitate informal knowledge and practice sharing, and where improvements can be made to foster a culture of open dialogue regarding decision-making and intuitive action. Doing so could have significant benefits concerning the development of adaptive heuristics, improving officer decision-making and self-efficacy, while also reducing isolation and improving the transparency of action.

8.5 Future Research

Given that the proposed framework is theoretical, many of the limitations of this thesis are inherent. Theories need to be tested, and this thesis is not a test of a theory but the genesis of one. Therefore, this chapter (and thesis) concludes with a summary of future research avenues that ought to be pursued for the validation and development of the theory – notwithstanding opportunities to develop this theory from 'substantive' to 'formal'.

²³⁹Details of the operation have been redacted to protect the anonymity of the participating force.

The first proposed research opportunity concerns the point discussed above: measuring specific biophysiological components to discern the officer baseline. This might include conducting tests on perceptual abilities – for example, do specific officers demonstrate better peripheral vision, allowing them to identify environmental stimuli within a greater range? Forces may wish to test vagal tone to learn whether certain officers or officer types are able to remain calm under pressure, thereby limiting perceptual errors. Measuring interoceptive awareness to explore an officer's ability to detect and respond to visceral cues may also explain heterogeneity across the policing population that could inform TCN variation. Conducting research of this type could enhance our understanding of biophysiological components and their effect(s) – either in isolation or combination – on the development and presentation of TCN.

The second research avenue concerns factors mentioned by participating officers herein, but that were not sufficiently present to be considered substantive. For example, officers referenced the notion of 'risk' and how their perception(s) of risk could influence their decision-making processes and actions taken. However, the concept of risk, uniquely in the context of policing, has not been researched to any informative degree. As such, studies exploring officers' perception(s) of and response to risk, and how this may contribute to or align with phenomena such as TCN, are of paramount importance.

A third research strand may involve exploring the permanence of TCN by speaking with officers who have retired from service. Doing so could enhance our understanding of the necessity of practice and inform Force strategies that concern continued professional development and opportunities for the proactive use of skills.

Finally, as this research has explored the mechanistic components that elucidate real-time cognitive processes and decision-making in officers, a notable observation is the absence of reference to policies and practices that exist to support decision-making protocols. For example, the National Decision Model (NDM) – a framework for decision-making in the policing context – was not mentioned by officers at any notable frequency, despite the in-depth narratives provided concerning how officers make decisions. As a result, it ought to be questioned whether the NDM accurately reflects the processes undertaken by officers, is fit for purpose, or whether an update is required.

Research of this type, which combines biophysiological, psychological, and sociological components, could have far-reaching benefits for policing globally.

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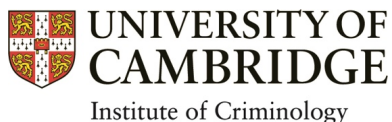
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Appendices

Appendix A: Participant Information Sheet

**Contact:**

Emily Quin (Lead Researcher)
emj44@cam.ac.uk

The Copper's Nose Project: Participant Information Sheet

Thank you for your interest in The Copper's Nose Project (TCN) and for agreeing to take part.

What? Policing has been practised in England & Wales for over 200 years and has evolved rapidly during that time. Academics and policing professionals have attempted to formally record all methods and techniques used by 'Forces' and their officers as the profession has developed, but a few remain unrecorded. Tools, techniques, and phenomena that is unrecorded cannot be accounted for. One such example is that of 'The Copper's Nose', or 'policing sixth-sense'. As a policing researcher, I believe it crucial to explore this phenomenon further and to document the value it holds to officers. Only then are we able to account for it.

How? I will be conducting one-off ~30-60 minute online interviews with officers from the 'Forces' of England and Wales to ask *their* opinion on 'The Copper's Nose', including its definition, uses, and value. The responses will then be transcribed, coded and analysed before being written into a thesis. The data will directly inform 'Forces', Chief Officers, academics, and policymakers on TCN, and its value to officers..

Who? The study is being run by Emily Quin, Ph.D. Candidate at the Institute of Criminology, University of Cambridge. The supervisory team consists of Dr Matthew Bland and Professor Barak Ariel (as at 2021). The research is fully endorsed by the College of Policing and is funded by the Economic and Social Research Council (ESRC). The interview participants will consist of serving police officers of all ranks and specialisms, from various 'Forces' across England and Wales. All participants will be anonymised, along with their responses.

When? The interviews will take place in a scheduled manner between 2022 and 2023. Each officer will be interviewed only once in the first instance. Each interview will be arranged around the participant. It is duly noted that the participants are serving police officers with busy jobs and (often) unsociable or unpredictable working hours. The interviews will therefore take place around operations, shift patterns, and rest days, at the participants' convenience.

Where? Interviews will take place remotely using Microsoft Teams.

Important:

Please see the 'Consent and Data Protection Form' (C&DP) for information on consent and data, including the terms of anonymisation. All participants are required to read and sign the C&DP form before participating.

For any questions, or to request further information, please contact Lead Researcher, Emily Quin, using the contact information listed in the top right-hand side of this document.

All participants are of significant value to the development of research and we could not improve policing without your support and engagement. I would like to formally thank you for your participation and for your Service.

Appendix B: Consent & Data Protection Form



Contact:

Emily Quin (Lead Researcher)
emj44@cam.ac.uk

The Copper's Nose Project: Consent & Data Protection Form

Thank you for your interest in The Copper's Nose Project (TCN) and for agreeing to take part.

This is the Consent & Data Protection Form that you are required to complete before participating in The Copper's Nose Project. The purpose of the document is to inform you of how your data will be collected, stored, and shared; and of your rights as a participant.

Your Force/Constabulary has issued permission for your participation and are supportive of this research project. The research is fully endorsed by the College of Policing, and is funded by the Economic and Social Research Council (ESRC).

By signing below, you are agreeing that you have read and understood the below terms of participation.

- All participants will be anonymised, along with their responses. Key demographics will be collected for the purpose of analysis, including: *rank, gender identity, age range, length of Service, specialism (where relevant)*. You will not be identifiable from the demographics collected. Where you may be identifiable - .e.g. if working in a specialism of few people - some demographics may be removed to preserve anonymity.
- The interviews will be recorded for the purpose of extracting audio for transcription, coding, and analysis. The audio will not be shared beyond the Lead Researcher and Supervisors.
- Data collected will be stored in alignment with University and Institute regulations. Data will be stored on a physical SSD and kept within a locked facility at all times where only authorised persons within the Institute have access. The data may be backed-up to a secure University Cloud-system under the advice of University IT professionals.
- Data will be stored for a period not longer than five years from the date of collection, or not longer than two years from the publication of thesis - whichever comes first.
- The anonymised responses and data collected will form part of a doctoral thesis which will be published.
- Participation in this study is voluntary. You reserve the right to withdraw at any time. You do not need to provide a reason for withdrawal. You can withdraw by emailing the Lead Researcher and your data will be deleted.

Participant Name:

Participant Signature:

Date:

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All participants are of significant value to the development of research and we could not improve policing without your support and engagement. I would like to formally thank you for your participation and for your Service.