The socio-materiality of parental style: negotiating the multiple affordances of parenting and child welfare within the new child surveillance technology market

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Purpose; This study aims to offer understanding of the parent-child relationship by examining, through a socio-material lens, parental descriptions of how one aspect of the new child surveillance technology market, child GPS trackers (CGT), are rejected or adopted by families, highlighting implications for child welfare, privacy and children's rights policy.

Design; The authors gathered netnographic data from a range of online sources (parenting forums, online product reviews, discussion boards) that captured parental views towards the use of CGT, and stories of the technology in use, and theorize the data through application of a novel combination of neutralization and affordance theory.

Findings; The research reveals how critics of CGT highlight the negative affordances of such product use (highlighting the negative agency of the technology). Parental adopters of CGT, in turn, attempt to rationalize their use of the technology as a mediator in the parent-child relation through utilization of a range of neutralization mechanisms which re-afford positive product agency. Implications for child welfare and policy are discussed in the light of those findings.

Practical and social implications; The paper presents an empirical, qualitative understanding of parents negotiating the emergence of a controversial new child-related technology, CGT, and its impact upon debates in the field of parenting and childhood; develops the theory of parental style towards parental affordances, using a socio-material theoretical lens to augment existing sociological approaches; and contributes to the debates surrounding child welfare, ethics, privacy, and human rights in the context of child surveillance GPS technologies.

Keywords: Children; technology; surveillance; GPS; parental style; child welfare; child privacy; children's rights

Introduction: parental styles, child welfare and new child surveillance technologies

Parental style is deemed to have significant effects on child welfare and healthy transitions to adulthood (Baumrind, 1991a; Locke, Campbell and Kavanagh, 2012). "Over-protective" (Ungar, 2009), "helicopter" (LeMoyne and Buchanan, 2011; Padilla-Walker and Nelson, 2012; Segrin et al 2012) or "paranoid parenting" (Furedi, 2008), seen as a growing phenomenon in Western late-modernity, have been found to impact upon developing child mental health, ability to cope, and heightened anxiety in children particularly as they transition into youths, teenagers and young adults (Hofer and Moore, 2010; Marano, 2008). However, the theorising of parental styles relies upon theories of individual responsibility and action, and fairly simplistic notions of humanistic dyads of parent-child that are incompatible with the contemporary child rearing context, particularly with the growing technologization of the parent-child relationship (Bettany *et al.*, 2014; Marx and Steeves, 2010).

The unprecedented social change associated with new technologies has radically shaped the nature and expectations of childhood and the parent-child relationship. Increasingly, the embeddedness and ubiquity of mobile social mediation technologies enable and set the conditions for the maintenance of the social sphere (Ling, 2012), such that we need to explore these relationships not as simplistic cause and effect relationships, but as complex, heterogeneous arrangements (Bond, 2014). This changing context for parenting requires, we suggest, a shift towards socio-material approaches that take into account specific child-related technologies as they fold into the relationship between parent and child, wider society, and consumer culture.

In this paper we take one such new technology, child GPS trackers (CGT), within the product category of child surveillance technologies (CST), and examine, through a socio-material lens, how they co-emerge with possible, ambivalent and conflicting parental styles that have implications for child welfare, privacy, and human rights. We conclude that in

contemporary, late-modern, highly technologized consumer culture, the concepts of parental style and child welfare are mediated through the use of new technologies, such that they are highly contested, fragile and mutable; and argue for a basis derived from such research to have much more nuanced analyses of these important emergences upon which to base both child ethics, privacy, and welfare policy, and child technology designer, manufacturer and marketer conversations. This is particularly pertinent to topics around the interface between children and marketing that have tended to focus on advertising to children (as documented by Oates *et al.*, 2003) and not on studies that focus on the product element of marketing's four Ps spectrum.

Child GPS tracking: background and emergence

"Let the kids experience the world on their own – and feel completely safe. Trax is a GPS tracker that lets you locate your children and pets – through a mobile app or computer. It's smart, affordable and getting started is an easy as a breeze!"

TRAX GPS Tracker online advertising

The market for personal Global Positioning System (GPS) tracking devices is expected to reach \$3.5 Billion by 2019 (ABI, 2014) and child GPS tracking devices (CGT), a burgeoning new product within this market, are becoming increasingly popular. Launched in the USA, and now available in the UK and mainland Europe, they seem to have captured something of a zeitgeist, with 75% of British parents expressing potential purchase intention (FutureFoundation, 2005).

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CGT are part of a broader trend towards child surveillance technologies (CST); a product category ranging from sound and video link baby monitors, to internal home security and "nanny" cams (Marx and Steeves, 2010). CGT range in their technological sophistication, but fundamentally use satellite navigation technology to track, restrict, and monitor the mobility of children while away from parental view. The basic models are simple GPS tracking devices like market leaders TRAX[1] and Loc8tor[2] that provide parents with a GPS signal on a map to ensure they know at all times where their children are, allowing parents to also set alarmed geo-fences to ensure their children do not wander outside designated "safe" zones. More complex models like the Coban GPS302[3], the AmberAlert [4], and the Track My Child Talk[5] also provide children with a "panic button", and parents with the capability, through SIM technology, to listen discreetly to the immediate area around their child, and if necessary engage in two-way conversation.

CGT are designed to be worn (e.g. as a clip or watch-like bracelet). However, models that can be secreted in a child's clothing (e.g. the 361 smart shoe, designed with a tracker in the sole) are becoming more common as the technology becomes increasingly sophisticated and smaller. CGT are marketed towards parents of children, and in relation to those designed to be worn, to children deemed pre-smartphone age, with 12 being the age most children are now allowed to adopt smartphones (Ofcom, 2014). However, the marketing of these products also increasingly positions them as a safer alternative to smartphones for older children, citing risks that "undesirables" can call children on mobile phones; that discreet listening is not available on mobile phones; that mobile phones are more likely to be lost or stolen than a wearable device; and that wearable GPS devices can have a shake alert, alerting the parent if it is no longer being worn (Track Your Child Online, 2015).

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[1] http://www.traxfamily.com/
[2] http://www.loc8tor.com/uk/children/
[3] http://www.coban.net
[4] https://www.amberalertgps.com/
[5] http://www.trackyour.co.uk

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The marketing of CGT focuses primarily on child freedom and safety, with images of children undertaking healthy activity outdoors, and thus implicitly also promote healthier lifestyles. In addition, designed to be worn CGT are often themed with child-appealing colours and graphics to attract children themselves. However, CGT have emerged as highly controversial products, with implications not only for child welfare, but also for their impact on family life and relationships, and further effects on wider society. As ICT law specialist Brian Simpson argues (2014), CGT marketing interpolates parents into a nexus of assumptions about how the world is, and their place within it as good, responsible, parents; with the child emerging within a world of fear, requiring heightened monitoring. The implications of this recent technology, particularly within the areas of children's rights and welfare, privacy, and ethics, have not been considered fully, and the ramifications of their use over time are difficult to predict (Simpson, 2014).

The academic literature on children and surveillance products is scant (Steeves and Jones, 2010), and tends to focus on child surveillance more broadly. Examples include, Fotel and Thomsen (2004) who examine child mobility in surveillance society - arguing that the increasing levels of surveillance are changing what it means to be a child; Marx and Steeves (2010) who argue that CST have the dual purpose of keeping children safe *and* stopping them behaving inappropriately; McCahill and Finn's (2010) exploration of child surveillance in terms of gender and class; and Rooney's research (2010) discussing the impact on children's identity development in a culture that increasingly defines itself as inherently unsafe. With few exceptions (e.g. Henderson *et al.,* 2010) research on CST focus on the child, with the parents' voice being relatively neglected (Bond, 2010). This is ironic given that the bulk of the critique of the use of such technologies, and the blame for any child welfare repercussions, is aimed at the purchaser/adopter –parents.

CGT are highly debated in the media with themes emerging that usage will create a generation of infantilised young adults, lacking resilience, initiative, and problem solving skills (Malone, 2007; Dell'Antonia, 2012); carries increased social costs around emergency services (Herbert, 2006); ignores the reality that most children are abducted or hurt by a parent, and so fetishize the home as a safe space and the parent as intrinsically good (UN, Geneva, 2006); leaves the child vulnerable to location-hacking (Pieringer, 2012); and represents further embedding of surveillance society into personal life (Carroll, 2014).

The media particularly have opened discussions of CGT in highly emotive and critical terms, for example, calling parents using these devices "the suburban Stasi" (Wright, 2013, The Telegraph), "Parent Spies" (Morris, 2015, BBC News), "Big Mother" (Shulevitz, 2013, News Republic), "Spy-Masters" (Chicago Tribune, 2013), "Creepy" and "Paranoid" (Pemberton, 2015, Daily Mail), and as evidence that we are heading towards a "Dystopian" future, with the tagline "God help these children" (Carroll, 2014, The Guardian). From within this polarized debate, a nexus of emotive critique, coupled with a largely media-generated fear culture around child safety (Furedi, 2008), parents have to negotiate their relationships with their children, the doing of family life, and their parental style.

Parental style: helicopter parenting and CGT

The literature and media reports above largely base their critique on a model of over-controlling and over-involved parental style, leading to fears over the ability of children to develop independence, resilience and problem solving skills. The relationship between particular parenting approaches and child development and wellbeing has been long established (Baumrind, 1991a; Locke *et al.*, 2012). The main premise of parent-child interaction is that the physical, cognitive and social development of children is largely attributable to parental style, a "constellation of attitudes toward the child that are

communicated to the child and that, taken together, create an emotional climate in which the

parent's behaviours are expressed" (Darling and Steinberg, 1993, p. 488).

Baumrind (1966) identified three main parental styles, *permissive*, *authoritarian*, and

authoritative, a typology later extended to include *rejecting-neglecting* parents (Baumrind,

1991b). This framework is based on scores of parental *demandingness*, reflected in parental

tendencies to impose rules and demand mature behaviour from children (Locke *et al*., 2012);

and *responsiveness,* the amount the parent responds to their child's needs (Locke, *et al*.,

2012), as demonstrated through positive parent-child interactions (Yang *et al*., 2014). Within

consumer research, Baumrind's parental style framework informs understanding of consumer

socialization processes within the family (Carlson and Grossbart, 1988; Rose, 1999); studies

that explore child influence and concomitant success (Bao *et al*., 2007; Ward and Wackman,

1972; Yang *et al*., 2014); credit card misuse (Palmer *et al.*, 2001); cigarette consumption

(Yang and Schaninger, 2010); and, within the context of public policy and marketing,

children's attitudes and behaviours towards sex (Moore *et al*., 2002). Parents buying CGT

might be considered to share characteristics akin to Baumrind's authoritarian parental style

(LeMoyne and Buchanan, 2011; Odenweller *et al*., 2014), valuing child obedience and

parental omnipotence (Yang *et al*., 2014), and those labelled "helicopter parents" (Cline and

Fay, 1990) demonstrating "excessive involvement in their children's lives" through applying

"developmentally inappropriate parenting tactics by failing to allow for levels of autonomy

suitable to their child's age" (Segrin *et al*., 2012, p. 238). Both authoritarian and helicopter

parents value strict parental control that involves the monitoring of child activities

(Odenweller *et al.,* 2014).

Helicopter parenting can occur in any stage of childhood (Segrin *et al.,* 2012) and is

often discussed in relation to adolescence, with "overprotective" or "over-solicitous"

parenting frequently applied to similar parental tendencies involving younger children

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(Padilla-Walker and Nelson, 2012); in this paper, we follow Padilla and Walker (2012) and use the common vernacular of helicopter parenting throughout our study. Helicopter parents demonstrate over-parenting practices associated with a form of parenting which involves intrusively micro-managing a child's actions, coupled with displays of strong parental affection in the absence of child distress; high on warmth/support, high on control, but low on autonomy granting (Padilla-Walker and Nelson, 2012).

Helicopter parents, then, are overly involved, protective parents; they constantly communicate with their children; make decisions on their child's behalf; remove obstacles in the way of their child's progress; and intervene in their child's affairs (LeMoyne and Buchanan, 2011; Padilla-Walker and Nelson, 2012). Helicopter parents are often highly educated and affluent, inhabiting positions from which to overindulge and shelter their children from perceived difficulties (Odenweller *et al*., 2014), taking the normative parental role to a dysfunctional level (LeMoyne and Buchanan, 2011). Although their parenting approach is likely to be well-intentioned (Locke *et al*., 2012), it has been linked to negative child outcomes, including emotional regulation problems, depression, anxiety disorders, victimisation at school, stunted independence, and substance abuse (Georgiou, 2008; LeMoyne and Buchanan, 2011; Segrin *et al*., 2012).

Reading the above, an argument might be made that CGT represent the material manifestation of the helicopter parental style. They allow constant hovering, micro-management of the child, constant communication and intervention and parental over-involvement in day-to-day decision-making. They arguably dis-able the child in terms of the development of risk-management strategies and the autonomy to decide when to take risks, and as such have the potential to impinge on child welfare. Therefore the helicopter parenting style framework seems particularly apposite to frame the emergent adoption of CGT technology.

However, we suggest that in terms of the increasing technologization of the child-parent relationship, the parental style literature (including the helicopter parenting construct) needs to be developed to account for new mobile technologies, such as CGT, that offer parents the ability to act at a distance. The parental styles literature presents parental style as essentially social-psychological, dyadic and fixed (Carlson *et al.*, 2001; Kerrane and Hogg, 2013), as based upon a humanistic, neo-liberal philosophy of parental choice and responsibility that in part helps to reproduce the rather unhelpful polarisation of debates that are evident around both new technologies and parental styles. We suggest that a different theoretical lens could offer potential new insights, specifically taking into account the complex socio-material milieu within which that relation emerges alongside new technological products, such as CGT. In doing so we recognise that the parent-child relationship emerges from within socio-material cultural milieu where a heterogeneous mix of human and non-human actors result in emerging specificities of that relationship where the very terms of the debate, for example, freedom, autonomy and choice, are negotiated fragile achievements rather than taken for granted constructs.

Therefore, using child GPS trackers as an exemplar case, this paper asks, "*how do parental style, and child-welfare related practices, emerge from within parental accounts of the complex socio-material contexts afforded by new child surveillance technologies?*" In addressing this question we offer three main contributions. First, to offer a detailed empirical, qualitative understanding of parental accounts of their negotiation of the emergence of a controversial new child-related technology, CGT, and its impact upon debates in the field of parenting and childhood; second, to develop the theory of parental style using a socio-material theoretical lens to augment existing sociological approaches; and third, to contribute to the debates surrounding child welfare, ethics, privacy, and human rights in the context of child surveillance GPS technologies.

Theorising CGT and parental style: utilising neutralisation and affordance in the context of surveillance theory

In the broader context of surveillance theories, the rise of surveillance society has been dominated by the idea of the Panopticon (Bentham and Bowring, 1843; Foucault, 1977), the prison design where control is achieved through visibility of inmates by a hidden, so *ostensibly* omnipresent guard, thus stimulating self-regulation among inmates. However, several contemporary surveillance theorists argue that the panopticon is perhaps not fully adequate to explain the present proliferation of technologically-mediated surveillance (Lyon, 2010; Webster and Robins, 1986) and have suggested various post-panopticon ideas to progress the theorising of surveillance in the context of mobile and information technologies.

The post-panopticon idea of liquid surveillance (Bauman and Lyon, 2013; Lyon, 2010) details the contemporary world of voluntarist consumer self-monitoring, seeping into all areas of life; mutable, mobile and in a reciprocal relationship with the contemporary frailty of social bonds and societal erosion of trust. Lyon (2010) within this framework specifically asks for empirical work that examines the technological imbrication of surveillance products into society, particularly where they are imbued with an ethic of care. This is particularly apposite with regard to CST that are increasingly marketed using a logic of care (Rooney, 2010). Following this, the emergence of CST, we would suggest, fits within the scope of what Lyon (2010) has called the "panopticommodity", an example of a softly seductive (Marx and Steeves, 2010), material manifestation of a mobile surveillance technology emerging from the economy of participatory surveillance, where self-disclosure has come to equal freedom and authenticity; and rather than the focus being on the panopticon idea of control and imprisonment, the themes of freedom, flexibility and fun are foregrounded (Bauman and Lyon, 2013). However, although this study can add to the broader macro context of theorizing around surveillance, its primary theoretical intervention and

contribution is with the theories that are dominant around controversial consumption, with a clear positioning *vis-à-vis* the theoretical position taken with regard to macro-level theorising around this issue.

Within sociological studies of surveillance, researchers have used neutralisation theory as a way to theorize how surveillance is both resisted and embedded in society (Marx, 2003; Marx and Steeves, 2010) as such it provides a good starting point to theorise the adoption of CGT. Neutralisation theory helps understand how individuals soften the impact of norm-violating actions and the impact that this behaviour may have on their self-concept and associated social relationships (Grove *et al.*, 1989). Originating in Sykes and Matza's (1957) seminal research on juvenile delinquency, individuals are suggested to develop justifications for norm-violating behaviours to "protect themselves from self-blame and the blame of others" (Sykes and Matza, 1957, p. 666). Grounded in notions of the 'flexibility' of the normative system of society (Williams, 1951), rather than such norms being binding and absolute, they become, "qualified guides for action, limited in their applicability in terms of time, place, persons, and social circumstances" (Sykes and Matza, 1951, p. 666). Patterns of rationalisations then emerge to qualify actions in the face of possible disapproval, *neutralising* disapproval, whether internalised or from others.

Within consumer research, neutralisation theory has been utilised within a range of consumption contexts, including studies of ethical behaviour in retail settings (Strutton *et al.,* 1997); alcohol consumption (Piacentini *et al.*, 2012); retail disposition (Rosenbaum and Kuntze, 2003); perceptions of corporate action (De Bock and Van Kenhove, 2011); and fairtrade/ethical consumption in general (Chatzidakis *et al.*, 2007). Five neutralisation techniques have been identified (Sykes and Matza, 1951), which have applied to the consumer setting (Strutton *et al.*, 1994). Each neutralisation category is explained in figure 1.

NEUTRALISATION TECHNIQUE	DESCRIPTION	EXAMPLE
Denial of responsibility	Individual denies responsibility of the aberrant behaviour because factors beyond their control were operating (Rosenbaum and Kuntze, 2003). They see themselves as more "acted upon", rather than "acting" (Strutton *et al.,* 1994; Sykes and Matza, 1951)), arguing that they are not personally accountable for the norm-violating behaviour.	*"it's not my fault, I had no other choice"*
Denial of injury	Individual contends that their misbehaviour is not serious, as no party directly suffers as a consequence of their actions (De Bock and Van Kenhove, 2011).	*"what's the big deal, nobody will miss it?"*
Denial of victim	Individuals counter potential blame by arguing that the violated party deserved what happened to them (Rosenbaum and Kuntze, 2003; Strutton et al., 1994). Rightful retaliation or punishment is rationalized (Sykes and Matza, 1951) through the individual positioning himself as an avenger, whereas the victim is ascribed the position of wrong-doer.	*"it's their fault; if they had been fair to me, I wouldn't have done it"*
Condemning the condemners	The individual deflects accusations of misconduct by shifting attention to the motives/behaviours of those who disapprove (Strutton et al., 1994; Sykes and Matza, 1951); for example, highlighting that those that condemn perform similarly disapproved actions (Chatzidakis et al., 2007; Rosenbaum and Kuntze, 2003).	*"the police break the laws too"*
Appeal to higher loyalties	The demands of larger society are sacrificed by the demands of smaller social groups an individual may belong (Sykes and Matza, 1951). Norm-violating behaviours are justified on the basis that an individual is attempting to actualise a higher ideal (Chatzidakis et al., 2007, p. 90). Norm-violation may occur not because such norms are outright rejected, but because other ideals (e.g. friendship or family values) appear more pressing/are accorded precedence (Sykes and Matza, 1951).	*"to some what I did may appear wrong, but I was doing it for my family"*

Figure 1: Neutralisation techniques, descriptions and examples

During the initial stage of coding our data, neutralisation theory offered a potentially valuable analytical vehicle due to encountering adopters/potential adopters of CGT drawing on quite complex strategies of counter-argument and justification to explain what they obviously perceived as a questionable purchase. Within a context of public and media critique of these products, where the potential adopters are effectively being positioned as deviant and dysfunctional parents, neutralisation strategies are unsurprising.

However, neutralisation only offered a partial analysis. Firstly, as well as neutralisation strategies, our coding revealed much positive attribution of product potentialities by adopters/potential adopters that could not be fully explained by

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neutralisation theory alone. Secondly, and following from this, neutralisation theory, being purely sociological, cannot fully explain the agency and material effects of the CGT technology. In the parental accounts, CGT emerged as highly contested, ambivalent and in important co-emergence with constructions of parental styles and childhood itself. Therefore, to augment neutralisation theory, we sought a theory that would not only allow us to discuss consumer neutralisations of a product's potential, but attributions of potential through theorising beyond the social, to the socio-material. Within the broader macro-theorisation of surveillance, this follows Dubbeld (2011) who argues for studies that highlight the socio-material nature of surveillance technologies that, she argues, have the promise of offering more balanced views of the emergence of these, offering a less deterministic and pessimistic reading of surveillance society (see also Lyon, 2010; Poster, 2005).

Socio-material approaches are typically used to analyse human-technology relations (Latour, 1991; Law, 1991). Theorising technology has shifted from the position that technologies are tools for achieving human ends, to post-essentialist theories that seek to explore the ambiguities surrounding the nature of technologies, as ambivalent entities immersed in heterogeneous networks (Bloomfield *et al*., 2010). These theories can be used to explore how the distribution of ambiguity constitutes a particular technology, and allows consideration of how these ambiguities impinge on certain individuals (Rapport, 2001). Technologies are seen as constructed in reciprocal socio-material relations, where it is assumed that technological objects have certain "affordances" that suggest what potentials they offer in a relation with the user (Akrich and Latour, 1992; Pfaffenberger, 1992). Affordances, originally from ecological psychology (Gibson, 1977) "are not reducible to their material constitution*"*, that is affordances are not a list of technical features*, "*but are inextricably bound up with specific, historically situated modes of engagement and ways of

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life" and that analysis should focus on "how specific action possibilities emerge out of the ever changing relations between people and objects" (Bloomfield *et al*., 2010, p. 420).

As a means to study the attribution of *action possibilities* in relation to technologies, affordance theory has been utilized in studies of how disability gets constituted alongside technological artefacts, such as computers (Bloomfield *et al*., 2010); how learners and mobile learning institutions are linked and produce technologies designated as 'for learning' (Wright and Parchoma, 2011); technologies of social media in organisations, with specific regard to the emergence of new organisational communications styles (Treem and Leonardi, 2012); and how new digital technologies and backpackers create new forms of tourism and mobile society (Molz and Paris, 2015).

Combining neutralisation theory and affordance theory, we suggest, offers contributions to both theories, and further, develops a novel theoretical framework for the analysis of controversial products, particularly new technologies. For neutralisation theory, a sociological theory, affordance theory offers a socio-material lens and thus a consideration of material agency in the neutralisation process. For affordance theory, neutralisation theory offers not merely the consideration of the attribution of action possibilities to the material object, but consideration of the processes involved with how that agency is negotiated with users. The combination of these theories allows an analysis of how the human actors (parent, child) emerge within this socio-material context alongside the technology. This novel combination of neutralisation and affordance thus offers a theoretical contribution to the conceptualisation of parental styles, and to the theory of new product adoption within marketing and consumer studies, particularly where the product is controversial. It explains the entanglement of the social, the technical, and the political as adopters, pre-adopters (and rejecters) show in their descriptions how they, together with CGT co-produce, co-neutralise,

and co-afford new conceptualisations, not only of the product itself, but also of parents, childhood, and ultimately, of what good parenting is.

Methodology

Online ethnography, 'netnography', "a specialized form of ethnography adapted to the unique computer-mediated contingencies of today's social worlds" (Kozinets, 2010, p. 1) was the method employed in this study. Given the technological focus, such computer-mediated worlds represented obvious environments to collect qualitative data from parents engaging with CGT, and follows other studies in consumer research utilizing socio-material ontology (e.g. Parmentier and Fisher's (2015) multi-site netnography of heterogeneous assemblages of market dissolution). Parents were chosen as key informants as their voice in existing studies that explore CST has been relatively overlooked, as such, our analysis is based on parents' descriptions, construction and negotiations of how CST impact upon parent-child relations. A particular strand of netnography, a non-participative netnographic approach (Cova and Pace, 2006), was utilised in data collection. Following other netnographic studies (e.g. Colliander and Wien, 2013), although we did not actively participate in the online discussions that took place between parents focussing on CGT use, we fully immersed ourselves in the online conversations that took place. Indeed, we see our non-participation in the online discussions as an important method for maintaining the integrity of the online conversations that unfolded around CGT use.

We followed the netnographic guidance offered by Kozinets (2010) in this study that covers entrée, data collection, data interpretation and ethical standards. Online communities were chosen that were *relevant* to the research focus, had *active* and *interactive* communications between participants, were *substantial*, *heterogeneous* (accommodating a number of different participants, with differing points of view), and *data rich* (Kozinets,

2010). We draw on multiple sources of online material posted over a one-year period in this study, which includes data collected from: multiple online news sites and forums that discussed the launch of new CGT (which offered consumers the opportunity to post comments/responses to such product introductions and news stories); data obtained from online, impartial, product review sites that facilitated consumer postings, questions and discussions; and through parents posting on popular parenting forums. The sources selected are, we feel, relatively 'neutral' arenas where parents – both advocates and opponents of child surveillance technologies – mutually interact in unfolding dialogues. Each source, in line with the need to collect heterogeneous data within netnographic research (Kozinets, 2010), captured a range of opinions about the use of CGT, and from a range of positions within the decision making process from pre-purchase to post-purchase.

It should be noted, however, that we accept as a limitation of this research, particularly given the kind of theoretical approach taken, that the more commonplace dataset in such studies would be (at least augmented by) observational data. However, we return here to Law's (1994) insight on the problems of observational methods where what is studied is action-at-a-distance, particularly where mediated through technology. The issue remains where to be to observe "the action" and "practices". As such, most contemporary studies like this utilise additionally data that emanates from interviews, online discussions, papers and the like. Here we restate that given our focus on parental perspective, our dataset contains rich descriptions and discussions around CGT use, from which insights about how they co-emerge with other key human actors in the socio-material context were clearly evident.

The two authors individually coded the data by hand, and then, following Colliander and Wien (2013) met to discuss findings and resolve disagreements. Throughout this process themes were identified surrounding discussions of both parental use (and potential use) of CGT, and otherwise (with multiple points of view, fuelled by the interaction between parental

advocates and opponents of CGT). Data was then grouped together by identified theme capturing the, often detailed, descriptions of CGT use, together with the means through which those in favour of CGT attempted to mitigate – or neutralise – the criticism levied towards CGT. We thus loosely follow Spiggle's (1994) guidelines for the analysis of qualitative data in this netnographic study. In relation to research ethics, although there is still a relative lack of understanding in terms of how – and indeed if - informed consent can be obtained from virtual participants (Kozinets, 2002), we follow the guidelines for the conduct of ethical netnographic research offered by Kozinets (2002, 2010).

Findings: the entanglement of neutralisation and affordance in CGT adoption

We present our findings in three sections. Part one outlines the online criticism directed towards parents who use, or are considering using, CGT, by non-product users (highlighting negative affordances of CGT). Part two, drawing on neutralisation theory, highlights the techniques by which parents counteracted such criticisms, neutralizing (changing/reducing) the agency of the technology itself; and part three outlines how parental purchasers re-afforded the technology, stressing the added benefits that CGT afford users/parents.

Part one: Critical voices - the negative affordances of child GPS trackers

In mapping the terrain of CGT and parental style development (Fig. 2), we first examine the critical parental voices we found within our data. These can be categorised as falling within three main themes that characterise the arguments made against CGT, *Natureutopic, Socially Conscious and Technoskeptic*. Within these themes CGT were repeatedly purported to offer

user/adopters three negative affordances; the *de-skilling* and *over-control* of children, creating *distance* between parent-child.
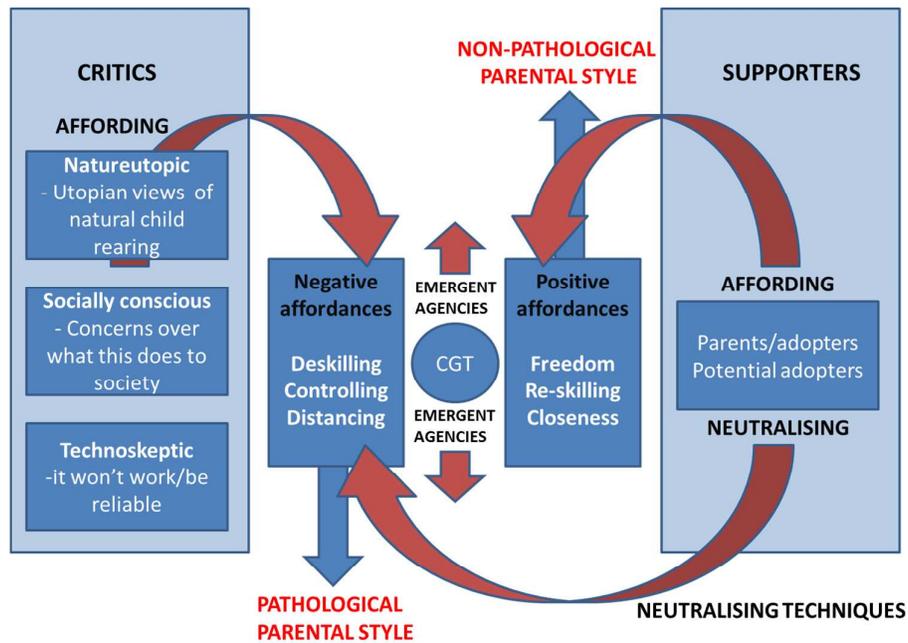
Figure 2: The socio-material entanglement of CGT adoption and parental style

NatureUtopic

Within the natureutopic theme, parents made arguments drawing on idyllic/romanticised views of a natural childhood and a nostalgic view of the past, as recounted here during a discussion of CGT adoption on a parents' forum:

> *"I was one of those children though. Aged around 10 I took my two younger siblings*
>
> *off for a walk in the woods adjacent to our house and we got lost, returning several*
>
> *hours later. I was familiar with the topography though, confident in the knowledge*

there is always a way out -it just might take a loooooong time to find it -and being adventurous already knew the rudiments of making a warm camp and where to find water and nuts and things to eat. We grew up next to those woods so I wasn't fazed. I remember a lot of storytelling and piggybacking in turns my younger sibs, who also thought it a great adventure".

This reflects prior research reporting the contemporary concern to protect the child's experience of the enjoyment of childhood (Cunningham, 2005), involving romantic notions of the child in nature (Read 2010) and based on parental reflections of a seemingly carefree childhood (O'Brian *et al*., 2000). This view was poles apart from the high technologization of childhood facilitated by CGT, with posters commenting: "*we never needed to be tracked when we were kids*". Within this theme, CGT emerged as affording a *deskilling* of the child, with parents voicing concerns that using trackers prevents children from developing in a natural way, including the encountering of risk, and removing risk taking opportunities: "*we did things as kids we wouldn't want our parents to know. We are taking that away from our kids*".

This reflects concerns of prior research that highlights that it is through risk-taking and risk-assessment that children develop their identity (Green, 1997) and arguments that CST potentially challenge the childhood experience, particularly hindering trust, risk and responsibility development (Rooney, 2010). Further, within this underpinning theme of nostalgia and romanticism around childhood, CGT were strongly linked, critics argued, with parents using the technology to distance themselves from their children, changing what should be a naturally close and co-present relationship into a distant technologically mediated one: *"we should communicate with our children the old-fashioned way and they will give you the information. I trust my kids".* This chimes with Bauman and Lyon's (2013) suggestion

that as surveillance technologies streamline action at a distance, relationships become more

fragmented and fluid, and questions of morality and ethics of care are altered.

Socially Conscious

The second major theme among critically positioned parents was a concern over what

widespread use of these technologies was doing with regard to wider society. Unsurprisingly,

notions of the reproduction and normalisation of a surveillance society were common, "*so*

1984, it's happening in front of our eyes, slowly but surely", but also included the notion that

CGT are affording changing parental style towards over-control and over-monitoring, with

eventual negative social effects, as this commentator on a newspaper article on CGT argues:

> *"This is a bad idea. It gets kids used to the idea of being tagged and tracked. I don't*
>
> *want this to become normal for the entire population and this is where it starts.*
>
> *Proper parenting is the correct solution here".*

As well as criticisms of over monitoring and control, CGT were assumed by some critics to

also allow parental style which escaped the time rigours of "proper parenting":

> "*How about lazy parents working to build a relationship of trust with their children?*
>
> *This device runs absolutely contrary to that as well as normalising the surveillance*
>
> *culture amongst the young. We deserve the horrors that await us as we so carelessly*
>
> *embrace such technologies".*

Allied to this, parent-critics often pathologised the anxiety reported by adopters as a reason for the need to monitor afforded by the CGT, stating on one parenting forum, for example, that such parents seemed "*excessively worried*", and in relation to a post about an upcoming family skiing holiday suggested that the poster visit their GP due to this excessive anxiety. These responders support Furedi's (2002) arguments about paranoid parenting, and his critique that this is a pathological state that has replaced the normal parenting focus of nurturing, stimulating and socialising with monitoring and control.

Critics also related concerns that CGT were affording *de-skilling* of the child, as with the theme above: *"How can a child develop their own coping strategies knowing a parent is watching over them?"* (Peter Bradley, director of services at the UK charity Kidscape, discussing CGT in an online news story). However, within this theme it related to the effects on society of the creation of a generation of infantilised adults, unable to think and act independently, as this responder to an online article argues:

> *"Wrap kids in cotton wool and track their every movement on GPS. Kids are already growing up with issues from over protective parents and this kind of technology is only going to make it worse".*

Technoskeptic

Parent-critics often recounted their lack of trust in the technology of CGT and how the system, should it fail (which they felt was highly likely), would cause additional problems for parents, as this parent's forum participant commented:

> *"What if the system cut out or went down? Would I bail out of my work meeting and call the school, or drive wildly to where I thought my girls should be?"*

Here, parental critics argued that CGT affords a whole new level of parental control, but one that will cause problems and anxiety through inevitable failure. This chimes with Bond (2014) who argues that new technologies such as this make users simultaneously anxious *and* secure. This notion of CGT affording a false sense of security was common among the critics, as this commentator on a product review site suggests:

> *"If someone kidnap your kid the first thing he is going to notice is this GPS tracker on his belt and remove it from the kid. Guess what!!??? No more tracking and the kid is gone for good . :(".*

However, here the argument was extended to include the CGT affordance of *distancing* of the parent-child relationship. Critics warn that the distance afforded by CGT might create more potentially dangerous situations for the child as the monitoring system breaks down. Here, the pathologising of parents who use the device was again evident, as this commentator on a news item on CGT outlines:

> *"GPS doesn't work indoors and is patchy in built up areas. Who would really pay £100 to tag their child and then assume it was safe for them to go out and play. If it's not safe without it, you shouldn't be letting your young child play there. Young children should be supervised, not monitored using a tracking device"*

Additionally within this theme, the agency of the child to resist the technology was often recounted as an unconsidered rogue element in the breakdown of the system: *"..and how many kids will hang this on the nearest tree 5 mins after leaving home?"* These fears

over child resistance to the technology fit with recent research on smartphone use among teens, who used strategies to subvert the monitoring and surveillance elements of the technology (Barron, 2014). In this way, the parental critics are warning of the ultimate futility of their over-controlling efforts among increasingly technology-savvy children.

Part two; Techniques of neutralisation - parental adopters and pre-adopters

Our study of CGT suggests that parents in favour of such technology described their use in such a way that illustrated a variety of techniques and mechanisms to help normalize (Odou and Bonnin, 2014) the purchase of CGT, and thus justify behaviour that to other parents seem inappropriate (Strutton *et al.*, 1994) and outside the norms of "good" parenting. Whilst all five neutralisation techniques are identified within our data set, each technique is not represented in equal depth, a finding consistent with other studies employing neutralisation theory (Grove *et al.*, 1989; Odou and Bonnin, 2014). The most frequently cited techniques are *denial of responsibility* and *appeal to higher loyalties*, with example comments (drawn from a broad range of online sources) relating to each technique offered in Figure 3:

NEUTRALISATION TECHNIQUE	DATA EXAMPLE
Denial of responsibility	*"My kids are all teens and they all have a tendency of pushing the limits. If you tell them not to go somewhere, they'll go and lie. Tell them not to do something, they'll do it and lie"*
Appeal to higher loyalties	*I want my children found quickly, if anything ever happens to them. I could[n't] care less about "big brother" mentality. My children are more important than the paranoid delusion of "being followed". Yes, get out of the way and let us protect our kids"*
Denial of victim	*"My son is 9 and has a watch that doubles as a tracker, he doesn't know its GPS enabled".*
Denial of injury	*"Why does the child need to be in imminent danger to justify having a tracking device? We all tell our children we need to know where they are and with whom. Why is it a big problem to use a device to keep track of that information? What's the harm?"*
Condemning the condemners	*"I am now a single mum with two children. The fear I feel when out with them especially in crowded places, is extreme. The loc8tor helps tremendously ... a must for all safety conscious parents".*

Figure 3: Neutralisation techniques and data examples

Denials of responsibility are based on parents feeling helpless, with their circumstances (and behaviour/child characteristics) predisposing their use of CGT (McGregor, 2008; Odou and Bonnin, 2014). Frequently parents discussed their children as having a "*tendency of pushing the limits*", or who are "*runners ... who take off and hide*", as these posters from a product review question and answer page describe; or who have special needs, as this parenting forum participant describes, "*he's severely autistic, non-verbal, 10 years old*", as ways of deflecting disapproval from defying societal norms or social expectations surrounding good or appropriate parenting – positioning the actions of their children as leading to CGT use. Appeals to higher loyalties relate to parental defences (McGregor, 2008) through which posts demonstrated parental commitment to keeping their children safe, "*I would pay hundreds for some way of keeping my child safe*", reaffirming their ties with a smaller sub-group (the family unit), with the needs of this smaller group

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taking precedence over attachment to society as a whole (de Bock and Van Kenhove, 2010; Sykes and Matza, 1957).

In addition to the five main neutralisation techniques identified by Sykes and Matza (1957), we identify two further techniques that parents used to justify use of CGT: *gateway exception* and *demotion*. Similar to the technique labelled 'defence of necessity' (McGregor, 2008), adopters justified product use by way of a *gateway exception,* rationalising their purchase because of family vacation or exceptional circumstances, as this product reviewer highlights: "*I am very happy with this product!! I bought this for my son just because we had move to Italy...not sure about security here just yet :)*". In terms of *demotion*, CGT were adopted by parents almost as a failsafe, or back-up – which, rather than supplanting their own parenting skills – operated backstage to complement their own capabilities as competent parents, as this forum poster explains: "*that's what insurance is: you hope you never have to use it. But you have it "just in case"*". Rather than the technology being used in place of good parenting, frequently parents posted on parent forums that they would use it as a ""*just in case" procedure*" rather than "*rely on hi-tech*" to rear their children.

What we feel is interesting from the two additional neutralisation techniques identified, *gateway exception* and *demotion*, is the manner in which parents de-afford CGT as a fall-back product (taking agency away from the products – with the tech used only in the background, complementary, not supplementary, to "good" parenting), and, similarly with gateway exceptions, that the technology is only to be used in exceptional situations, *and* only in conjunction with responsible parenting. As such, the technology emerges within such situations as something that does not shape or affect parental style; and that, through gateway exception/demotion neutralisations, parents take agency away from, and de-afford, the product itself (by positioning the technology as secondary, or as mere backup, to their effective parenting).

Part three: Re-affordance of CGT by parental adopters and pre-adopters

Users of CGT further responded to critics of such surveillance devices, countering the de-affordances identified in the first part of our findings section, through re-affording the technology, promoting the additional benefits that CGT affords its users.

Not de-skilling, re-skilling

Whereas critics of CGT contend that the use of such surveillance de-skills child users, making them passive victims of parental control which stifles their autonomous development (Malone, 2007; Dell'Antonia, 2012), parents, instead, highlight the *benefits* brought to the child user. Parents, for example, commented that the use of CGT has developing a sense of safety and security in the child that has heightened the confidence of their children, as this product reviewer explained:

"I would like to add that Trax has been very helpful for our son so far, not only improving our feeling of security but also his confidence - more than we expected from the product"

The ability of the product to keep the child safe, and thus ongoing product usage, is further reinforced by the additional benefits afforded to the child user (enhanced confidence) in helping him/her negotiate perceived dangers in contemporary society.

Benefits to parents were also raised; with our online research encounters highlighting how product usage offered *parents* additional skills that they would not hold without the use of CGT. For example, parents often posted that the technology enabled them to do things they would not ordinarily be able to do, such as taking multiple children on visits to local

parks, on family holidays, and to other amenities on their own, as this parent on a product

review discussion describes:

"I took four kids to a kid's museum- they range in age from 2 to 5 years old and dart

in every direction at a moment's notice. This tool was the only way I could have

pulled this outing off ... about to give this device another go in a few weeks at Disney!

Wouldn't be able to leave home without it for that trip!"

Here, parents pointed towards not *de*-skilling, but to a *re*-skilling process; affording both

parents and child users additional affordances (e.g. increased confidence, opportunities for

widening parental activities with children) through drawing on the agency of the product.

This adds to Lyon's (2010) question, in the context of post-panopticon theory of how new

technologies, fused with the human, take on powers of their own. Here, the agencies of

parent, child and technology when combined are seen as more than the sum of the parts.

Not distance, closeness

As identified earlier, critics of CGT contend that usage creates distance between parent and

child. Users of CGT challenged this assumption, demonstrating that the technology cemented

the parent-child bond, and offered amplified opportunities for parents to display, through

their online accounts and descriptions, "good" parenting practices – keeping parents closer to

their children, which parents felt was particularly important should their children ever be in

distress and need their aid, as this product reviewer describes:

"I want to tell you of an incident that happened last year with our two daughters.

They wanted to go to the park with their friends so we sent them both with an Amber

Alert GPS clipped onto their pants. We set up a zone around the park to know if they

left the area. A half hour later I was on my way to the store when I got a text message

alerting me from one of my daughters GPS units ... there was comfort in knowing that

I could drive right up to the very spot where they were playing and find everything

alright and my daughters knew that I would come to find them if they ever had to push

the button in a real emergency. I am thankful for the peace of mind that this kind of

technology gives me and that it is such a great tool for our family".

Given the technical nature of the products, parents often needed to explain to their (particularly younger) children how the products functioned. Here, parents took time with their children to discuss the CGT, often holding family meetings to talk about and demonstrate how to use the device (Simpson, 2014), reinforcing to their children (through this display of love, and ultimately the protection that the technology affords) that their children were irreplaceable and needed to be kept safe, as this forum post highlights:

"My kids are four and seven, (we got one device for each) and after using it for about

a month, I'm all in and could not be happier ... it also sends out an SOS to as many

cell phones and computers as you want. When we explained the button to them and

they tested it a couple of times, they told us it made them feel safer that they could call

mom anytime they wanted to".

Parents often posted that the technology afforded ways in which they could further interact with their children (enhancing parent-child communication), particularly at times when parental presence (e.g. school time) was not permitted. Through the use of CGT listening functions, parents could, for example, ask their children about their day when they

returned home from school, without simply getting "*one word answers*" of "*I did my homework*", "*I was working on a school project*" from their children:

> "*I love listening in on my 1st grader at recess. Today we heard her say, "Mama mia Quesadilla" to someone at lunch. It was hilarious. When we picked her up from school we both said it to her in the car and man did her face light up. So cute! She loves her watch too*".

This father again reinforced the notion that good parents "*can't know enough about their children*", or where they are. This appears poles apart from the sterile and cold parenting style that critics often directed towards parents who use CGT, as reported in the first section of our findings.

Not control, freedom

Critics of CGT contend that the technology restrains the actions and behaviours of children, citing a longing for a bygone age where children were "*free to be children*". CGT, then, control children and their movements "to such an extent these children will not have the social, psychological, cultural or environmental knowledge and skills to be able to negotiate freely in the environment" (Malone, 2007, p. 513). However, many parents countered this response through claims that CGT in fact *liberate* children through the ability of parents to ensure their child is safe through monitoring the child's location (Simpson, 2014), as this commentator on a newspaper article on trackers argued:

> "*My son is 9 and has a watch that doubles as a tracker, he doesn't know its GPS enabled but if he wanders too far from home it texts me and I can see where he is on*

an app. It allows him the freedom I had as a child and me the peace of mind of

knowing I can find him".

Within a cultural context where increasingly letting children roam is pathologised as irresponsible parenting (O'Brian *et al.*, 2000), rather than CGT being seen as controlling the child, it affords him/her an extra degree of freedom that without the device, the parents may not permit, as this parent on a newspaper site posits:

"Sweet. Does this mean that kids may soon be allowed to play outside again? I'm 31 and remember the good old days when I could go down the road and play in the woods aged 7".

Similarly, other parents highlighted not only the enhanced sense of freedom CGT afford the child users, but also that such gadgets enabled the child to perform previously denied activities (as the above comment also demonstrates). One post, on a product review site, for example, recounts the story of a young boy (aged 8) who liked to go exploring on his own; recently the child had encountered difficulties whilst trekking alone that put his safety (and future explorations) in potential jeopardy. As a result, his family members turned to GPS technology to maintain his sense of freedom *and* ensure that such pursuits can continue:

"He acted very sensibly in my opinion and stopped a mountain biker on the main track who took him back to the start of the walk and to the organisers. He has a track record for being a 'free spirit' and rather difficult to contain sometimes so my sister is looking for some sort of tracker that if he gets lost again they can locate him straight away".

In terms of parental style, CGT afforded parents "*peace of mind*" in allowing their children to stray out of sight, with many parents explicitly commenting that the technology facilitated a more relaxed style of parenting, "*I was thinking of it too as a way of allowing a little more freedom but safely. I do hate the idea of him constantly pinned to my side and it's good for children to explore*" (mums forum post). In relation to the above example, and other similar posts, such technology use allows children "*to be children*", and is positioned by parents as a facilitator for a more permissive parental style – without constraining the need for autonomy and freedom that children desire, "*I like that I can see where my daughter is in real time; in fact, I can watch her ride her bike to school in the mornings… it gives my daughter the independence that she so craves*" (product review post); and similarly "*If the technology exists then why not?? I wouldn't say that I'm a particularly anxious parent, and perhaps it can help you let your kids become more independent*" (forum post). These findings chime with Bigo's (2011) discussion of the "banopticon", within post-panopticon theories, where the governmentality of fear together with the normative imperative of mobility creates the perfect conditions for the proliferation of these technologies in contemporary society.

Discussion: Agency neutralisation and affordance - the politics of CGT adoption and the parent-child relation

Our research asks, using child GPS trackers as an exemplar case, "*how do parental style, and child-welfare related practices, emerge from within parental accounts of the complex socio-material contexts afforded by new child surveillance technologies?*" To address this, the model and data produced in this research show the entanglement of socio-material *action possibilities* that emerge for children, parents, and the CGT technology during the decision-making, adoption, and use processes. Neutralisation theory, a theory well used in consumer

research to explain decision-making in cases that require some kind of moral or ethical judgment, has been combined with affordance theory to relate the neutralisation process from one working on attitudes, towards one working on agency – a key factor in human-technology interactions. That is, neutralisation is used to examine notions of who in this milieu is attributed agency, what kind of agency they have and to what ends, and how this agency shifts and changes during discussions of this controversial product. Through using this new combination of theory, we suggest a conceptual shift away from *parental style*, towards *parental affordances*, seeing these as multiple, emergent and contested, emerging within the range of socio-material affordances implied in the parent-child-technology relationship. This allows analysis of how multiple socio-material agencies are shifted, altered, reduced, and enhanced, which ultimately attribute not only the status of "being a good parent", with the concomitant child-welfare outcomes that suggests, but becomes the site at which the key terms of the debate, freedom, responsibility, autonomy, care, even love, are being contested and negotiated. In using this framework, then, we uncover how the politics and ethics of "being a good parent" are played out within the context of new child surveillance technologies.

This work also contributes to macro-accounts of surveillance and children that have called for research and theorising which links agency to the construction of the figure of the child in the epoch of heightened anxiety and fear around this figure (Wallace, 1995). Parents involved in purchasing and using CGT are engaged in a complex dance of agency attribution and neutralisation, invoking and mobilising the figure of the child, the CGT, and their fears for wider society. In the purchase decision making process they operate within a sense of reduced agency in relation to wider society, which is viewed as potentially dangerous, and increasingly encroaching on the child. Here society is seen to have too much agency in the child-parent relation, which clearly seems threatening (e.g. *denial of responsibility, appeal to*

higher loyalties, condemning the condemners). CGT emerges as affording agency to the parent (e.g. *re-skilling, freedom, closeness*) meaning this device, plus the parent, can neutralise some of the agency of society. In relation to the child, the CGT also affords the parent enhanced agency to act at a distance, to control and monitor (*re-skilling* the parent), but also to enhance their ability to display and engage in activities clearly related to "being a good parent", to offer the opportunity for the child to have adventures (*freedom*), develop new skills (*re-skilling*), and to foster a good relationship (*closeness*). The parent claims to utilise the agency of the CGT to achieve a good parent-child relationship (*denial of victim, denial of injury*) and also claims the CGT has no real agency within the parent-child relationship (e.g. it is *demoted* as a one-off special circumstances product, or as a *gateway exception,* used in one particular context with no enduring effect). The analysis shows how the CGT shifts, where necessary, through affordance and neutralisation, between a negative, positive, and neutral technology within these discussions. Ambivalent technologies offer solutions to ambivalent problems.

The CGT, as a mediator in the parent-child relationship, works due to its ontological uncertainty in a context that offers polarisation (as shown in the non-adopter critic responses and media reports) to the parent trying to negotiate their parental status – it is *at once* an object which offers agency to the parent (enhanced skills and control), but also to the child (enhanced freedom, connection and skills). It has agency to act as a proxy co-present parent, enmeshed in the ongoing parent-child relationship *and* it has little agency to impact on that relationship, it is a headliner *and* a bit-part player. It acts to reduce the agency of society, while at the same time increasing the agency of society in terms of the incursion of surveillance into the private life of the child. It is this indeterminacy of agency, within the maelstrom of neutralisation and affordance, we suggest has rendered the CGT such a compelling product among parent-adopters even in the face of sustained and valid critique.

The implications of this analysis are that it demonstrates that the very terms of the debate around children's rights and privacy are changing, in part due to the emergence of these surveillance products, and this is one location where this definitional vista is being played out. The ontological indeterminacy of the CGT as neither good nor bad, agentic and non-agentic, as offering agency to the parent, the child and society, at the same time as reducing that agency, fits perfectly with the ontological indeterminacy of the key terms of the debate. Freedom and control are shown in the analysis not to be binary oppositions, but two sides of the same coin in contemporary parent-child relationships, similarly, skilling and de-skilling, and distance and closeness. At a cultural moment where mobile internet technology and the micro-management of social life are becoming ubiquitous (Lyon, 2010; Ling, 2012), the CGT technology is a genie that cannot be put back into the bottle, and is beginning to be a powerful actor in the on-going debate over the parent-child relationship, and the rights of the child. This is at the very time that the child is being re-defined in law as a subject of rights rather than an object of protection (e.g. the EU Agenda for the Rights of the Child, 2011), and where current EU jurisprudence recognises the child as an independent and autonomous individual with a legitimate entitlement to human rights (Bond, 2014). Within that context, and as played out in our research context, what future implications are there for child welfare within the child-parent relationship and beyond?

It is with policy and legal issues (e.g. ethical, privacy and child welfare and human rights) that we feel our research raises greatest implications. Debates and policy over children and technology tend to focus on perceived threats where the public encroaches on the private (i.e. the child within the family), such as child safely and security while connected to the internet (Bond, 2014). Our research suggests a need to additionally address children and technology within the parent-child relationship itself. Undoubtedly, issues emerge in relation to the privacy of the child through CGT use, with many unanswered questions posed (e.g. do

children have to give consent to be GPS tracked? And, if so, how can this consent be obtained, particularly for very young children?). Policy is needed which considers such issues, and whether age-appropriate guidelines are needed for when children can opt-out of CGT usage. Equally, given that parents report covertly listening in to their children in social settings, policy is needed which considers where it is appropriate for this technology to be used (could it, for example, be banned from school premises?), and the rights of others (e.g. playmates, teachers, passersby) who are vicariously entangled in the use of child surveillance. This inevitably raises issues for marketers and manufacturers of such products; how do they negotiate the legal and ethical implications, not just over marketing communications of CGT which arguably are read by parent-adopters in such a way as to position the child as an object for protection rather than a subject of rights, but over the management of ongoing services such as the covert listening SIM enabled service?

The societal costs of CGT also need to be considered, with CGT linked with an associated cost to the emergency services (Herbert, 2006) who may be compelled to investigate cases of children legitimately going missing, and those perhaps reported by overzealous parents where the technology has failed, or has been subverted in some way. Such technology could break down family and state relationships (Wyness, 2013), with consideration of whether child GPS data could be used for purposes other than locating children (e.g. to arrest parents if they have committed a crime; to track 'unruly' children who have, for example, truanted; or for commercial purposes). CGT, as presented by marketers, is a classed product, marketed to largely affluent parents, but the technology has implications beyond this to other groups of children, like this, where the discourse of voluntarism worryingly disappears. Equally should CGT become widespread, there is the inextricable question regarding parents (like our parent critics) who choose not to GPS tag their children; could this action, in a state of product ubiquity, eventually be viewed as child neglect on the

part of the parent, should their child go missing? Other profound legal implications of CGT relate to the liability of providing an incorrect geographic reference point to help locate children, having the potential to further propagate blame culture. Our analysis could provide the basis upon which to debate these issues more fully in the legal and policy arenas.

In terms of the context of theories of the child-subject, an area highlighted for further research within the context of surveillance studies (Webster, 1995), our research approach also contributes to other studies of children, parents, marketing and consumption by shifting the discourse away from dominant neo-liberal conceptualizations of agency and choice. The socio-material ontology illustrated here in the context of CGT conceptualizes agency instead as material-semiotic, emergent and distributed, where choice and action are not contained within specific actors but emerge from complex heterogeneous assemblages. This approach has the potential to enhance studies of the interface of children and the market in the future that examine, for example, the entanglement of advertisements, products, peers, siblings, parents and children *vis a vis* marketing to children more broadly, and provide an alternative to the neo-liberal underpinnings of agency, the child and the parent (and also the marketer) that underpin much of the legal and policy discussions and governance in this area.

Conclusion

The figure of the stranger haunts the world of liquid surveillance (Lyon, 2010), in this paper we respond to calls from within surveillance studies, and through increasing concerns with respect to how the child emerges in relation to new markets and products. To do so we take a new child surveillance technology, child GPS trackers, and examine, through a socio-material lens, how they impact upon the parent-child relation and concomitant parental styles, by placing focus on parents' descriptions, construction and negotiation of these mediated relationships. We conclude that in contemporary, late-modern, highly technologized

consumer culture, the concepts of parental style and child welfare are mediated through the

use of such new technologies, where the very terms of the debate of "what is a good parent?"

are contested and changing. We argue for more nuanced analyses of this upon which to base

child ethics, privacy, and welfare policy, and manufacturer and marketer conversations

suitable for the now, and future, technologized, and surveilled context of child welfare.

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The socio-materiality of parental style: negotiating the multiple affordances of parenting and child welfare within the new child surveillance technology market

Response to reviewer comments

We would like to thank both reviewers for their constructive comments on our manuscript. We would like to thank you for your time and input to help strengthen our paper. We are pleased that both reviewers felt that we offer "unique" and "fascinating" accounts of a new consumer trend, suggesting, respectively, minor and major revisions. We are pleased that reviewer one felt that we handled our data well and with sensitivity, and we have now extended our coverage of broader issues relating to the surveillance society (and we thank you for encouraging us to re-visit the work of Bauman and Lyon, and for your other helpful references, now incorporated). Although, as we have clarified in the paper, the main theoretical contribution of our thesis is in terms of extending the dominant theory of neutralization in controversial or non-normative product decision making and consumption by combining it with the socio-material theory of affordances, we feel we have now positioned our work within broader macro-theories of surveillance, and this has enabled a more nuanced discussion of the key contributions. We thank you for this very interesting and appropriate guidance

We also acknowledge that reviewer two feels that our work is interesting and important, and we have developed our manuscript to make sure that we have addressed the issues identified. We have done this primarily by re-framing our research question towards a clearer understanding that we have used accounts of practices, and descriptions and justifications by parents rather than directly observed practices, and thank you for highlighting this omission. We have additionally made it clear that we have utilized a broad range of accounts, from detailed and direct descriptions by parents of the ways in which they are using CGT products, and the issues arising from this; the justifications used by parents to account for the use of this controversial product; as well as the accounts and explanations from parents who reject this technology. Following your very helpful and appropriate advice we have adding greater clarity in terms of data handling, having provided useful contextualization of data quotations to demonstrate that the sources of our data were chosen carefully to ensure that they contained a diversity of accounts (following Kozinets, 2010). We have also added additional information on the method employed and data analysis procedures, bringing the revised paper in line with other papers published in *European Journal of Marketing* that also utilize netnography.

We aim to reply to your comments on a point-by-point basis, below.

REVIEWER ONE

Dear Reviewer 1,

We would like to sincerely thank you for the positive and constructive tone of your recommendations for minor revisions. Particularly, we acknowledge your positive comments in relation to the unique context of our study, the comprehensive and

insightful approach to data presentation, and our handling of the socio-materiality of social relations and the construction of the child as a subject.

We have given considerable time to reflect on the revisions that you suggested to us: and we whole-heartedly agree with your recommendations for improvements. We now offer greater clarity with our decision to use neutralization theory (augmenting this approach with affordance theory to question the dominance of using neutralization theory alone to help understand controversial consumption or norm-violating behaviours in marketing consumer research); in particular we have linked this use of theory to the broader context of surveillance society, and your insights have enabled us to link surveillance, the figure of the child (and child agency) to our discussion particularly of the policy, ethics and welfare implications of CGTs. This we feel has greatly improved the insights we offer, so many thanks. In addition we have provided further detail in relation to our method (grounded in the level of detail provided by other European Journal of Marketing papers that also adopt a netnographic approach to data collection); and we recognize your pertinent suggestion to engage with philosophical discussions surrounding the surveillance society (which we have done in our revised manuscript). We hope you find the paper now has a clear positioning in terms of the macro-theories of surveillance studies.

Many, many thanks for your suggestions. We respond to your specific comments on a point-by-point basis, below.

Reviewer 1

This is a fascinating context in which to examine the way social relations are mediated by technology. The unique and evolving children's surveillance technology world provides a rich context within which to examine the shifts in the parent – child relationship, and beyond that of citizenship rights, and forms of risk as constructed and managed by parents.

The data presented is very comprehensive and insightful. It is dealt with sensitively and ethically and for this I commend the author/s.

We thank you for your very positive and helpful comments! Like you, we feel that the issue of child surveillance needs greater coverage in academic publications. We have followed guidance from Robert Kozinet's seminal research on netnography that has guided our approach to data collection and analysis.

The theoretical interpretation of the study is based largely on the idea of Neutralization theory. This is an interesting take on parental efforts to cope with or negotiate with the criticisms of the technology and its use to continuously monitor their children.

Thank you for this comment. Neutralization theory is a widely used theory that helps to better understand consumption acts that could, in some way, be viewed as deviant. We have drawn on neutralisation theory as one way to help us understand how individuals soften the impact of this and the impact that this behaviour may have on their social relationships (Grove, Vitell and Strutton, 1989; Chatzidakis, Hibbert and Smith, 2007).

However to me the use of neutralisation theory does not fully explain this new form of surveillance. I see this as part of larger theorising around surveillance of 'incapable' bodies. While Foucault speaks of the Panopticon as a 'keeping in' technology, Bauman and Lyon (2013) speak of the 'ban-opticon' which serves to keep undesirable bodies 'out. More importantly, these authors suggest a post panopticon surveillance society that fit more with Deleuze's rhizomatic version, spreading at several points and encompassing 'paradoxes' of freedom and confinement. Lyon (2006;p.15) speaks particularly of this self-expression not self-repression as the discourse within which the post panopticon surveillance works.

Thus, while the ideas around neutralisation as a means of reconciling or rationalising the paradox of the panopticon disciplinary on their child, go some way towards explaining the language and discourse that parents and the CGT marketers' use, it seems like a more meso level use of theory would be useful. The data seems to describe some of the 'liquid surveillance' ideas of Bauman and Lyon, and follows primarily Deleuzean notions of power. This may be a more powerful theoretical line to take, than neutralization theory or negative affordances. The data also begs the question of how the child subject is constructed, which you hint at in the beginning of the paper but don't fully address. The 'subject' (or in this case perhaps the 'object') is somewhat invisible in the process of producing a 'caring not helicopter parent subject'.

You raise a very interesting and thought-provoking point here, and you highlight an issue that we have since given considerable thought. With a paper that places primacy on the practical and policy implications that emanate from our research, it is always going to be problematic to offer nuanced insight into broader theory without potentially losing the strength of the practical and policy implications that are suggested. We have drawn on neutralization theory mainly because it is one of the dominant theories often used to help explain controversial product use. One of the major contributions of our manuscript is that (as you suggest is useful) it offers a critique of neutralization theory from a socio-material perspective, in terms of these types of analysis. To do this we bring in affordance theory to augment and improve the dominant theoretical model so often used within marketing consumer research. Following your suggestions we have also now linked this throughout the paper to the more macro/meso level theories of surveillance society, positioning our work within this field and folding the additional insights it brings into our discussion. Following your very helpful suggestions for additional reading we have engaged with such debates in the paper, and we would like to thank you for the suggested literature that you highlighted to us (this was most helpful).

Finally, In the conclusion where you say that you look at how the new child surveillance technology impacts upon parent-child relations, it seems to me that while you do examine how parents describe how their relationships with their children are mediated by the technology, since the child's voice is missing, this is overstated. I would suggest you emphasise the fact that you are focusing on the parents' construction and negotiation of these mediated relations.

Thank you for your comment, and, on reflection, we thoroughly agree with this point. We have now re-stated that our focus is on parental voices, and in turn their

construction and negotiation of such technology use. Thank you for raising this issue with us.

Additional Questions:

1. **Originality: Does the paper contain new and significant information adequate to justify publication?:**

   The paper uses the context of child surveillance technologies, a new and unique context within which to explore parenting practices. In this it is unique and original.

We thank you for your very supportive comments! Like you, we see this research as being new and unique.

2. **Relationship to Literature: Does the paper demonstrate an adequate understanding of the relevant literature in the field and cite an appropriate range of literature sources? Is any significant work ignored?:**

   It is comprehensive in its coverage of the socio-materiality of social relations and the construction of the child as a subject. The larger context of surveillance technologies is less well covered.

Again, thank you for your positive comments – and for your comment that the socio-materiality of social relations and the construction of the child as a subject has been handled in a comprehensive manner.

To address your final point, as outlined above we have strengthened our engagement with literature that covers surveillance technologies (drawing on some of the very literature that you recommended to us).

3. **Methodology: Is the paper's argument built on an appropriate base of theory, concepts or other ideas? Has the research or equivalent intellectual work on which the paper is based been well designed? Are the methods employed appropriate?:**

   This section is a little sparse. Other than explaining that it used a 'non-participatory netnographic approach advocated by Kozinets, and how ethical issues were dealt with it tells us nothing about the process by which the coding was undertaken, how themes and constructs were built up from this.

With reflection, we agree – our initial discussion of methods and analysis was a little sparse. We have since reviewed other European Journal of Marketing articles that adopt a netnographic approach to data collection (see, for example, Fernandez et al., 2011; Pentina and Amos, 2011; and Colliander and Wien, 2012), and we have used these papers as exemplar cases to help us to revise our methods section – and in many respects we offer greater detail of our method and analysis across this section of our manuscript. We now feel confident that we offer greater transparency in our revised method section, bringing our content in line with other successful European Journal of Marketing papers that have also utilized netnography.

Thank you for suggesting that we strengthen this element of our manuscript – and thank you for your constructive and positive comments in relation to the level of detail we offer in relation to research ethics and our non-participatory approach to data collection.

4. **Results: Are results presented clearly and analysed appropriately? Do the conclusions adequately tie together the other elements of the paper?:**

The results are presented clearly. The theory used to explain the results is reasonable, but could be much richer if a more 'meso' level approach were used. The ideas around child surveillance is contextualised within the ideas of parenting rather than the larger and inescapable issues of surveillance societies.

Thank you for highlighting the clarity of our results section.

In the light of your earlier comment, as mentioned in other response sections, we have since offered a richer discussion of the philosophical issues in relation to surveillance society. As a result, we feel that our manuscript is now considerably stronger, and we thank you for reiterating the need to engage with such philosophical debate.

5. **Practicality and/or Research implications: Does the paper identify clearly any implications for practice and/or further research? Are these implications consistent with the findings and conclusions of the paper?:**

It has implications for policy making and child welfare issues. These are laid out quite clearly and the call for more 'nuanced' understanding of the role played by such techonologies is valid.

Thank you for such positive comments.

6. **Quality of Communication: Does the paper clearly express its case, measured against the technical language of the fields and the expected knowledge of the journal's readership? Has attention been paid to the clarity of expression and readability, such as sentence structure, jargon use, acronyms, etc.:**

Well written and very readable

Again, thank you for such positive comments – and for highlighting that our paper was well written and readable.

As a result of your comments and time, we now feel that our manuscript has been significantly improved. We would like to sincerely thank you for your input and for raising suggestions for minor revisions to us. We hope you find the paper much improved and enjoy reading it.

5

REVIEWER TWO

Dear Reviewer Two,

Thank you for the helpful comments that you make. We have incorporated your suggested changes to our revised manuscript, which we hope that you enjoy reading. We are enthused that you find our manuscript to be original and well written, which addresses important policy issues in our field. Furthermore, we are thankful to be able to reply to the recommendations you suggest to help strengthen our paper.

We concentrated most of our attention to address your concern in relation to coverage of arguments, as addressed in our original work. Now, we pay greater care to the use of language we use to help describe the parental descriptions of practice. We offer much needed clarity in our methods section, and position our approach in line with the guidance Kozinets offers in relation to conducting netnographic research (e.g. by providing greater context to the quotes selected, and commenting on the neutrality of the forums that we have selected as sources of data collection within the methods section– enabling us to capture differing opinions from a range of parental voices).

You have clearly spent a great deal of time and care reviewing our manuscript, and we are incredibly grateful for your diligence and time. We are confident that our revised paper alleviates the pertinent issues that you highlight with our original paper.

We respond to your specific comments on a point-by-point basis, below.

It's an interesting paper that deals with an important subject, and the research questions point at some relevant issues concerning the understanding of how new technology affects people's everyday lives. The paper has several interesting points; for example, it tries to highlight the nuances in parents' opinions regarding monitoring technology. The idea behind the paper is fruitful, however, there are also some problems.

Thank you for recognizing the potential of our paper, and for highlighting that it raises several interesting points. Child surveillance technology appears to be a growing phenomenon in contemporary society, so we see this research as offering something potentially new and unique.

When it comes to the section including the introduction and purpose of the paper, this points towards a study that employs another type of data than the data that is actually used. Highlighting practices from a socio-material perspective implicates other types of empirical material. The authors should relate to this and instead formulate a purpose that points more onto arguments rather than socio-material practices.

Thank you for highlighting this issue to us. We have taken some time to think about the point that you raise, and we have subsequently revised our manuscript taking much greater care with language usage. Within our revised manuscript we focus on descriptions of practice, rather than observations of actual practices themselves. We

acknowledge this pertinent point that you highlight – and we have been sure to ground our discussions in the descriptions of practice that the parents offer in our revised paper, and not just the arguments that are presented. We have also highlighted the diversity of responses, in our dataset we have not only debates and arguments, but often quite detailed descriptions of practices and uses of this new technology – we thank you for highlighting this as it did have the potential to cause the reader confusion about the empirical material used.

This problem remains in the choice of theoretical framework. This choice could surely be helpful when given the research questions (see for example page 9 "We suggest that ... taking into account the complex socio-material milieu within which relation emerges alongside new technological products such as CTG "), but can the empirical data answer to this? Furthermore, a more problematized discussion is missing, where the authors relate to the limitations of the selected theories.

This point relates somewhat to that above – the appropriateness of a socio-material lens given the empirical data we have used. One of the problems when studying technologies such as these is that what is being studied often takes place at different locales (so for example, the child is outside playing/going to school, but the parent is inside the house/office), which makes observational methods difficult to manage. As a leading proponent and theorist of socio-material studies John Law (1994) argues, the problem of where the action is, and where the researcher should be to observe it, is a tricky one! This is probably why many emergent studies of these new mobile technologies rely on other kinds of data and not just observation – we have introduced a recent study from the Journal of Consumer research doing this in our revised manuscript (Parmentier & Fischer, 2015). There are many other studies using socio-material ontologies that use interviews, internet discussions and other non-participatory methods, and we have cited some of these in the methodology to help clarity our approach. We have also made it much clearer in our paper that what we are studying is descriptions of practice rather than our own observations of the practices themselves – and that the reason for this is our focus on the parents' perspective.

However, we acknowledge your point that we have not engaged with the limitations of the theories utilized. Therefore, we have included some reflection on the limitations to the selected theories within our theoretical coverage section. Thank you for providing us with the opportunity to address this.

The empirical material consists of comments posted on three different forums. The authors give an overview of the three forums and this is ok, they may well be unidentified. However, the writers need to describe how they have worked with their analysis. There is reason to believe that a particular type of argument is more common in a particular forum than in another, for example there might be a certain kind of forum that attracts those who are pro-ctg, and other forums that attracts those against. What impact does this have on the analysis?

Thank you for raising this issue with us. With reflection, we feel that the level of detail and clarity offered within our methods section was not as rich and transparent as it needed to be. For example, we did not simply draw data from three forums, but three

different types of forums (with multiple forums explored within each forum group). On reflection the use of the word "forum" as a catch-all has been misleading – we have corrected this. We apologize for being so unclear here, and within our revised methods section we now offer a clearer, stronger description of method.

We draw inspiration from the seminal netnographic advice offered by Robert Kozinets in relation to your comment encouraging us to offer more detail in terms of the steps taken to analyze our data. We now do so within the methods section – and we show that, potentially, we are drawing on what we would term 'neutral' forums (e.g. a range of News sources, product review sites, and parenting forums – arenas where both advocates and proponents of child surveillance technologies can mutually interact in unfolding dialogues, either in favor or otherwise of such technology use, and offered often very detailed descriptions of CGT in use). As such, this mitigates the pertinent point that you raise in relation to possibly finding one biased point of view in one particular forum over others (and please accept our apologies for creating such misunderstanding - we really should have been clearer on this issue within our original paper).

We have resisted 'outing' the forums identified (and we appreciate your view that they may be left unidentified), and again we have sought guidance from the work of Kozinets in relation to this. One main piece of advice that Kozinets offers in relation to pursuing netnographic data collection is in relation to the heterogeneity of voices that can be captured within an identified data source type: we believe that we have captured a polyphony of voices, of differing opinions, in the sources identified.

When it comes to the result, the parents' comments are analyzed in an interesting way based on the different analytical concepts. However, as a reader you would want to see a little more of the context, in which type of forums the comments have been posted. Analysis – fetched where? – it seems to me that this analysis is closer to an analysis of arguments than practices.

Thank you for raising issues in relation to the need to offer commentary on the context of the quotes provided and how the analysis itself was undertaken. We partly respond to these concerns in earlier sections of our response to your comments (e.g. in relation to our revised discussion of descriptions of practices): and we have also given greater coverage of the (neutral) context of the forums in which the data has been obtained (within the revised methods section), and we have now added in additional context to the quotes provided, as necessary.

Additional Questions:
1. **Originality: Does the paper contain new and significant information adequate to justify publication?:**

<u>Yes, the paper points to an interesting and important development in terms of how technological development is affecting and changing relationships, in this case within the family. The paper contributes to new knowledge by pointing at and combining different perspectives in relation to a technological development that many perceive as intimidating.</u>

We thank you for your very positive comments in relation to the originality of our paper, and principally the nuanced contributions we make in relation to knowledge development and our combined used of neutralization/affordance theory.

> **2. Relationship to Literature: Does the paper demonstrate an adequate understanding of the relevant literature in the field and cite an appropriate range of literature sources? Is any significant work ignored?:**

The literature that more precisely focuses on the research question is scarce. Given the strong emphasis on the socio - material perspective one could possibly have taken into account issues such as how adaption of new technologies more generally can be understood from the point of for example class.

We have strengthened the literature with regard to the research question – clearly articulating the positioning and contribution of our research to the field. We have additionally added further discussion on more broad theoretical concerns of surveillance society. In terms of class specifically, this is a very pertinent issue, and although our focus, as stated in the paper, is largely on affluent, middle class parents (i.e. those who are primarily targeted by the marketing of such products), we have now added an additional piece in the discussion on the classed nature of the product, and the worrying ramifications of this technology for children and parents outside this group – we feel that this is very fruitful area for future research and so we thank you for this thought-provoking insight.

> **3. Methodology: Is the paper's argument built on an appropriate base of theory, concepts or other ideas? Has the research or equivalent intellectual work on which the paper is based been well designed? Are the methods employed appropriate?:**

As for the choice of the theoretical analysis tools, these work relatively well on the basis of the empirical material used.

Thank you for this comment, the theoretical purpose of the paper is to critique and augment the dominant theory of neutralization by bringing in affordance theory to offer an account that starts to break down the kind of underpinning logics of the child, the parent and so on that to us hamper progression of the debates and discussions around children and markets.

However, there is no discussion regarding possible limitations of combining neutralization and affordance. In other words, there is no discussion of problems concerning the choice of theory. For example, it is not apparent in which way neutralization could offer a socio-material lens.

As noted above we have now added new discussions relating to the limitations of the choice of theory. We hope now it is clear that it is affordances theory that brings to socio-material lens rather than neutralization theory. We have strengthened the discussion of the novel combination of these theories to highlight that using affordance theory in conjunction with neutralization theory offers a discussion of agency, where, in this hitherto dominant theory of controversial or non-normative consumption, agency was assumed (with concomitant assumptions that agency is

contained within a particular actor). Bringing affordance theory into a critical dialogue with neutralization theory allows a reading of a more distributed material semiotic agency that has the potential to add to the broader discussions of policy, ethics and marketing to children. We recognize that we have not articulated this clearly enough and so following your points we have made this much more clear in our revised discussion and theory sections, and we thank you for this.

Furthermore, the author should be clear about the fact that it is the arguments posted on various forums that forms the empirical data - research questions should be adapted accordingly. The question is whether a study of some different forums could answer the stated research questions, for example styles and practices. When it comes to the empirical material it should be clarified how they analytically have worked with the three different forums that probably attracts quite varied perceptions.

We have added in discussion of the limitations to our choice of theory (in terms of the data) as stated above, and we have adapted the language of our research question and throughout where knowledge claims are made (responding to the earlier comments that you have made). As stated earlier, we have now made clear that the data is from the parent's own often quite detailed descriptions of their practices, as well as those insights that unfold during discussions of the purchase and use of such technologies. We hope that this is much clearer.

We have also been much more transparent in terms of the sites chosen for data collection: not necessarily in terms of 'outing' the specific forums selected (which you rightly signal may well go unidentified), but instead by highlighting the 'neutrality' of such sources (e.g. online news sources, review sites and parenting discussion forums). Our approach to data collection therefore inevitably captures heterogeneity with responses – with parents posting descriptions of their use of CGT, and comments both in favor and against the use of child surveillance technology which spans the decision making process from pre- to post-purchase.

Thank you for highlighting to us the need for added transparency here.

4. **Results: Are results presented clearly and analysed appropriately? Do the conclusions adequately tie together the other elements of the paper?:**

This is related to my comments regarding the section on method. The authors should be more careful using concepts as practice when the empirical material consists entirely of comments on an internet forum. Secondly, there is a lack of clarity in the presentation of the empirical material, how has for example the quotes been selected. The authors say nothing about from which of the three forum the quotes has been taken.

Again, we thank you for your pertinent comments here. We have attended to the language issue you raise in relation to clarifying our focus on descriptions of practice throughout our revised manuscript. We also offer, as detailed above, more clarity in terms of outlining the types of sources we chose to conduct our netnographic study (deliberately selecting – as recommended by Kozinents – sources which contain heterogeneity of opinions between and amongst forum participants). We hope that our

added detail and clarity in the revised methods section fulfills your recommendation for greater context in terms of where the quotes, as a whole, have been selected from (i.e. 'neutral' sites of parenting forums and news discussions). Thank you for signaling that this needed greater transparency.

5. **Practicality and/or Research implications: Does the paper identify clearly any implications for practice and/or further research? Are these implications consistent with the findings and conclusions of the paper?:**

This section is interesting and works better, the authors discuss, among other things, their results in relation to policy issues, etc.

Thank you for your positive comments in relation to our coverage of policy implications. Additionally, we believe, following your other very helpful comments above that we have now more carefully linked the benefits of our theoretical approach to its potential contribution to policy issues.

6. **Quality of Communication: Does the paper clearly express its case, measured against the technical language of the fields and the expected knowledge of the journal's readership? Has attention been paid to the clarity of expression and readability, such as sentence structure, jargon use, acronyms, etc.:**

Yes, from my point of view.

Thank you.

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